

**CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD  
ANIMALS (CMS), 1979**

**African-Eurasian Waterbird Agreement (AEWA) and Action Plans**



**IMPLEMENTATION DURING THE PERIOD 2003 – 2005**

**Contracting Party:**

**KENYA**

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Kenya Wildlife Service

**AEWA Scientific Authority:**

National Museums of Kenya

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## **1. Overview of Action Plan Implementation**

In Article II of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds, Parties agree, as a fundamental principle, to take coordinated measures to maintain migratory waterbird species in a favourable conservation status or to restore them to such a status. These measures encompass general or specific conservation measures under the provisions of the Agreement, and could involve multi-lateral co-operative programmes with broad international approach. A number of activities and initiatives were undertaken in Kenya since AEWA MoP2. Some of the activities and initiatives are directly linked to specific AEWA Action Plans, but others, done in collaboration with multi-lateral conservation organizations both in Kenya and eastern Africa contributed to meeting the Action Plans albeit indirectly. This report gives an overview of activities and initiatives undertaken in Kenya after MoP2 under broad topics of: (i) Species conservation; (ii) Habitat conservation; (iii) Management of human activities; (iv) Research and monitoring and (v) Education and information management.

### **1.1. Summary of progress to date**

Kenya has a strong tradition of conservation and management of biodiversity. In addition, there is good scientific knowledge on many important wetland sites with large migratory waterbird populations. The country is a signatory to a number of multilateral environmental agreements (MEAs). Considerable progress has been made in the implementation of AEWA Action Plans in Kenya over the last three years.

#### ***(i) Species conservation***

The review of national legislations governing wildlife conservation is an important undertaking. This process is underway in Kenya, and wildlife species including migratory birds have been covered. No detailed emergency measures involving multi-lateral co-operative action between Kenya and other countries to conserve particular migratory species were undertaken over the last three years. But Kenya played a major role in the African Species Working Group initiatives under the auspices of BirdLife International partners in Africa in development of Species Conservation Action Plans. Different Species Action Plan Development workshops were held in Kenya and South Africa over the period.

#### ***(ii) Habitat conservation***

The Kenya Wildlife Service Wetlands Programme drafted and coordinated development of different management plans for key wetland sites over the period. Three Ramsar sites (Lakes Naivasha, Nakuru and Bogoria) in the country have management plans currently under implementation whereas the other two sites (Lake Baringo and Elementeita) have their plans under preparation. The plans address key issues of maintaining good wetland habitat conditions for waterbirds. A draft National Wetlands Policy with well defined sectoral involvement of different agencies was developed during the period. Other potential sites in Kenya for Ramsar listing were identified and appropriate proposals for listing presented to the Ramsar Bureau.

#### ***(iii) Management of human activities***

Hunting of waterbirds is not a common activity in Kenya. But the current legislations have provisions for licensed bird shooting issued by the Kenya Wildlife Service. Site-based conservation groups approach in the implementation of AEWA programmes in Kenya was identified over the period as a major aspect as regards waterbirds monitoring. These were promoted through collaborative efforts with different organizations in the country. The implementations of different provisions under the Environmental Management Co-ordination Act in Kenya were instrumental in the overall management of human activities around the wetlands.

#### ***(iv) Research and monitoring***

Inventories of wetlands in Kenya continued over the period. The annual monitoring programme for waterbirds continued without interruptions each January and July (for some sites) over the period. The information generated continued to be useful in the wetlands management planning and conservation efforts in the country. The Darwin Initiative funded project for Important Bird Areas monitoring by the BirdLife International Partner in Kenya (Nature Kenya), research programmes focusing on Rift Valley flamingo lakes by University of Leicester and Earthwatch Projects continued to provide useful information about migratory waterbirds in Kenya. Specific research projects focusing on particular waterbird species were also initiated over the period especially in Lakes Nakuru, Elementeita, Naivasha, Olbollosat, Bogoria, Baringo, Victoria, Jipe, Shompole floodplain and Natron basin, and coastal wetlands including the Tana delta, Watamu, Kisite, Mombasa and Wasini island areas.

#### ***(v) Education and information management***

A project aimed at ringing waterbirds was initiated in Africa, and Avian Demographic Unit, University of Cape Town (South Africa) assigned the responsibility to coordinate the programme. The first training was conducted in Kenya on 19-26 September 2004, and groups of ringers from Kenya and other eastern Africa countries trained. The Kenya Wildlife Training Institute in Naivasha, Kenya continued to play a leading role in building capacity in Kenya and Africa in general on Wetlands Management Planning. As part of the Wetlands Biodiversity Monitoring Scheme capacity building for eastern Africa, personnel from eastern region organizations involved in waterbirds monitoring were trained at the Institute. In addition, Kenya benefited from the Darwin Initiative project on Wetlands done in collaboration with the Wildfowl & Wetlands Trust (UK) and received computer hardware and software to manage waterbirds monitoring database.

### **1.2 Outline of priorities for national implementation over the next three years**

The Kenya's AEWA Implementation Plan in the next three years will build on the achievements made over the last three years. These will be in line with the AEWA Action Plans and Implementation Priorities updated at MoP2 to cover the period 2003-2007. In particular, the country shall focus on the following key aspects:

- i. Continued and expanded monitoring of waterbirds to cover most wetland sites;*
- ii. More research and inventories focusing on priority research topics developed on waterbirds;*
- iii. Capacity building programmes for waterbird monitoring and information management;*
- iv. Production of a simple manual on waterbird census techniques for Kenya's wetlands;*
- v. Developing management plans for specific wetlands which are inhabited by waterbirds*
- vi. Listing of additional Ramsar sites, World Heritage sites and Man and Biosphere Reserves to highlight the conservation and wise use of those wetlands for conservation.*
- vii. Education and Awareness programmes to involve communities and other stakeholders in conservation of wetlands and their biodiversity.*
- viii. Fundraising to sustain the Implementation Priorities and other AEWA Action Plans.*

### **1.3 Outline of priorities for international co-operation over the next three years**

Kenya's international cooperation in the AEWA Implementation Plan and Action Plans will be emphasized in the next three years. Close collaboration will be sought at eastern Africa region level as regards research and monitoring of waterbirds, and information exchange. The AEWA Administrative Authority (Kenya Wildlife Service) will continue to provide enabling environment and adequate support to implement research and monitoring of waterbirds in the country. Where appropriate Kenya will cooperate and collaborate with other international agencies and organizations including research institutions on Waterbird conservation and management.

## 2. Species Conservation

### Legal measures

**2.1** *Has a national policy/strategy or legislation to protect and conserve species covered by the Agreement (Table 1: column A; column B) and their supporting important areas been developed? If so:*

**(a)** *What are the main features of the policy/legislation?*

The protection of species is covered under the Wildlife Conservation and Management Act (revised in 1989) in Kenya. The Act clearly defines sustainable use of wildlife resources including migratory waterbirds and safeguards to their habitats. The review of national legislations and policies governing wildlife conservation continue to be undertaken, and wildlife species including migratory birds are extensively covered. Considerations have been given to other national biodiversity action plans, and the various international agreements on species conservation to which Kenya is a signatory.

**(b)** *Which organizations are responsible for implementation?*

Kenya Wildlife Service, National Environment Management Authority (NEMA), National Museums of Kenya, Ministry of water resources development, civil society groups and CBOs.

**(c)** *How does it relate to other national initiatives (e.g. national Biodiversity Action Plans)?*

The administration and implementation of the Wildlife Conservation and Management Act is supplemented by the Environmental Management and Coordination Act (1999). A National Biodiversity Action Plan and Strategy is already developed, National Environment Action Plan (NEAP), the draft National land use policy, National environment and development policy, National Poverty and Reduction and Strategic Plan are all important national initiatives that harmonize the environmental protection, biodiversity conservation and sustainable development programs. Thus conservation and protection of waterbirds is harmonized in the relevant environmental conservation and development policies processes.

**2.2** *What legal measures or practices has your country developed to prohibit or regulate for the following (refer also to section 4 on hunting):*

**(a)** *Taking of, and trade in birds listed in Column A and B of Table 1 (where utilization or trade contravenes the provisions set out in paragraphs 2.1.1 (a) and 2.1.2 of the Action Plan)?*

All wildlife in Kenya is protected including those under the Agreements Table 1. The Wildlife Conservation and Management Act defines the provisions for licensed hunting of game birds including some species of waterbirds. Some species in column B have an open season, but these do not contravene the provisions set out in paragraph 2.1.2 of the AEWA Action Plan. Trading in all wildlife including the species in Columns A and B of AEWA is not allowed in Kenya.

**(b)** *Methods of taking?*

Methods of taking are clearly defined by the Kenya Wildlife Service but licensed firearms are used in many cases. A professional test must be passed before an authority to shoot a given number of birds may be granted. There are also specific wetlands where shooting of birds is completely forbidden. Guidelines and regulations governing bird taking are also in place. These regulations define authorized species for taking, forbidden species that cannot be taken, and procedures of shooting including the approved firearms.

**(c)** *Setting of taking limits and monitoring these limits?*

As a requirement, all licensed hunters/shooters are obliged to inform the Kenya Wildlife Service about their activities. In addition, scientific information and data are used to make decisions of the numbers of birds that may be approved for taking in each place and time.

***(d) Sustainable hunting of species listed in Categories 2 and 3 (and marked by an asterisk) in Column A only?***

Of the waterbirds mentioned and whose range cover Kenya, only *Anas undulata* may be taken in certain seasons at a specific wetland site in central Kenya, Lake Ol bollosat. The taking is however strictly regulated by the existing regulations.

***(e) Exemptions to the provisions set out in paragraphs 2.1.1, 2.1.2 and 2.1.3?***

Shooting licenses may be granted giving exemption for purposes of research, education, agricultural damages and protection of public health. The exemptions are however applied with the highest precaution possible and may only be done in exceptional circumstances and under tight regulatory conditions.

## **Single Species Action Plans**

***2.3 Of the species covered by the Agreement (species listed in Table 1: column A), which spend part or all of their life history in your country, which have formal international (Category 1, species marked with an asterisk) or national (column A) Single Species Action Plans:***

***a. Proposed?***

The Department of Ornithology, National Museums of Kenya in collaboration with Nature Kenya (the BirdLife International Partner in Kenya) have targeted Maccoa Duck *Oxyura maccoa* (a regionally endangered species in eastern Africa but not presently covered by AEWA) for Single Species Action Plans. Kenya is working with southern Africa range states in this process. The country has also proposed the species for listing under CMS (see Annex 1). There is a proposal to develop an action plan on Flamingoes in Kenya that could be extended to the range states in eastern Africa. This follows recognition of the loss of habitats which is reflected in the declining populations of the species in most of the rift valley lakes in the region.

***b In preparation?***

No Single Species Action Plans is under preparation in Kenya at present. But Kenya has and continues to play a major role in Species Action Plans Developments in Africa. One species that has received attention is the Great Snipe *Gallinago media* whose conservation action plan is being developed by BirdLife International in close co-operation with UNEP/AEWA secretariat.

***c Being implemented?***

Kenya will play a role in the implementation of conservation actions for the Black Crowned Crane *Balearica pavonina* Programme whose biogeographical data analysis was completed in 2003. The species has shown remarkable reduction in its population and distribution in the country and region. This is mainly due to loss of habitats that include the wetlands and other foraging areas in the country.

***Please append a list of species and their action plan status. (For international plans indicate which other countries are involved in plan development/implementation.)***

## **Emergency measures**

***2.4 Describe any bilateral or multilateral co-operative action that your country has undertaken to develop and implement emergency measures to conserve species in response to unfavourable or endangering conditions occurring in the Agreement area.***

Ocean oil pollution and spills are monitored in Kenya. The coordination of the exercise is done by the National Environment Management Authority (NEMA) in collaboration with different agencies in Kenya. Monitoring focuses on Particular Sensitive Areas at the Kenya's Coastal waters including the marine protected areas.

No detailed emergency measures involving multi-lateral co-operative actions between Kenya and other countries to conserve particular migratory species were undertaken over the last three years.

## **Re-establishments**

### ***2.5. Has a policy on species re-establishments been developed in your country? If yes, please outline the main features of the policy and give details of any re-establishment programmes for species covered by the Agreement.***

The general policy in Kenya is to maintain the ecological status of wetlands to create suitable habitats for waterbirds. The National Wetland policy has been completed and is now waiting for approval by the government. Other relevant policies are the National water resources conservation and management policy that is based on that include the necessary waterbird habitats and catchments areas. There is the National environment and development policy that recognizes that sustainable development cannot be achieved without effective management of the environment and biodiversity.. A National Land use policy has been prepared and clearly demarcated land use zonation that recognizes conservation areas that include habitats for the waterbirds. A new Wildlife Conservation and Management policy is in the process of being developed through a consultative process involving the relevant stakeholders. The draft wildlife policy has provisions for wetlands protection and biodiversity conservation for sustainable development. The wildlife policy contains provisions for re-establishments of the endangered and threatened species of wild animals and their habitats.

## **Introductions**

### ***2.4. Has your country developed and implemented legal measures to prohibit the introduction of non-native species? Please provide details, particularly describing measures to control the release or introduction of non-native species (please indicate which species and their status).***

The legal measures to prohibit introductions are included in the National Environment Management and Coordination Act. The law specifies that no introduction of species may be executed anywhere in the country without an Environmental Impact Assessment (EIA) study. The Wildlife Act and policy prohibit introductions without and EIA. The draft National Wetlands policy also underscores the same approach that no introduction of any species may be done without an EIA. The Agricultural Act prohibits introductions of alien species that include both plant and animal specimens. No introductions of waterbirds were undertaken in Kenya over the last three years.

## **3. Habitat conservation**

### **Habitat inventories**

#### ***2.4 Has your country developed and published inventories of important habitats for species covered by the Agreement? If yes, please provide details, including any provisions to maintain or update these inventories.***

Inventories of wetlands used as staging sites for waterbirds in Kenya has continued to be undertaken. Although the important eastern and western migratory flyways staging wetlands are well represented in the Directory of Important Bird Areas of Kenya, there is still need for more inventories of the sites. Eighteen (18) wetlands have been identified and designated as Important Bird Areas in the country. Information on these sites has been published by Nature Kenya (the BirdLife International partner in Kenya).

Sites of international importance in Kenya such as Lakes Nakuru, Naivasha, Bogoria, Baringo and Elementeita have been inventoried and eventually listed as Ramsar sites. Other potential sites identified for Ramsar list include the Masinga – Kiambere- Mwea Reservoir (central Kenya), Tana River Delta (coast), Yala swamp in Lake Victoria basin and several coastal wetlands at Mida creek, Malindi, Watamu and Kisite-Mpunguti MPAs. There are several wetlands that have also been inventoried for the purposes of designating them as World Heritage sites including the Amboseli wetlands, Mt Kenya, and Kiunga Marine and Malindi/Watamu MPAs which are currently listed as WHS. The conservation measures in these areas are based on a legal framework that has provision for protection, involvement of the local people and adoption of wise use principles. Several other sites in the country are being inventoried on a continuous basis by the local universities, National Museums of Kenya, Kenya Wildlife Service, Kenya Marine and Fisheries Research Institute and other organizations. The relevant policies that touch on protection include:

- b) National Biodiversity Action Plan and Strategy
- c) National Policy on Environment and Development
- d) Wildlife Conservation and Management Policy
- e) National Water Resources Policy and Strategy
- f) National Land use Policy
- g) National Wetlands Conservation Policy (draft)
- h) National Forestry Policy

The inventories have been published in the technical reports and are also held in the databases within the relevant institutions. The waterbird census reports are also published as part of the African waterfowl census reports published by Wetlands International.

**3.2. *Has your country undertaken a strategic review of sites to develop a national network of important sites or areas for species covered by the Agreement? Please append a list of identified sites of international importance.***

Yes, a network of relevant sites has been set aside for conservation either as National parks and Reserves, , Marine Protected Areas, Important birds Areas, World Heritage Sites, or as local sanctuaries and conservancies. See point 3.1 and Annex 2 . In that respect there is a national network of 59 protected areas (National parks and Reserves) covering all the major ecosystems in the country and ranging from the marine and coastal areas to high altitude ranges in Mt Kenya.

Several non protected wetlands that are also critical for waterbird conservation are under community based conservation programmes i.e. Lakes Naivasha, Olbollosat, Tana delta, Lake Elementeita, Lake Solai and parts of Lake Victoria and Turkana.

All the sites are constantly under review to ensure effective network of the waterbird conservation sites and to enhance their conservation status through gazettelement as protected areas or listing as Ramsar sites or IBas.

Other areas of international importance include Lakes Nakuru, Bogoria, Baringo, Tana delta, Mida Creek, Mwea irrigation scheme, Amboseli swamps, Yala swamps, Saiwa swamp, Lake Magadi, Shompole floodplains, Lake Jipe etc.

## **Conservation of areas**

**3.3. *Describe the legal frameworks and other measures through which sites (including transfrontier sites) including of international importance gain practical protection. (Please append a list of internationally important protected sites.)***

- i) The Wildlife Conservation and Management Act has established 59 protected areas more than a half of which are of international importance and are also critical waterbird habitats.
- ii) Environmental Management and Coordination Act (EMCA) is another legal framework for environmental protection and conservation of biological diversity resources including waterbirds.



iii) The Water Act is critical for the management of water resources within the holistic framework of ecosystem or river/lake basin approach which complements the protection of the whole ecosystem including biodiversity resources.

iv) East Africa Community has produced guidelines for application by the member states in conserving transboundary ecosystems and species in eastern Africa. The guidelines are legally binding on the member states.

v) The Multilateral Environmental Agreements ( Ramsar, CBD, UNFCCC, CITES, CMS, UNFCCC etc) are international policies and legal frameworks that provide guidelines for member states to follow while undertaking transboundary conservation measures.

vi) Concerning the list of internationally important protected sites, see point 3.1 and Annex 2. Two of the listed Ramsar sites (Lakes Nakuru and Bogoria) are within protected areas - a national park and a reserve, adding to their national and international importance.

vii) Examples of the Trans boundary conservation areas which are critical for waterfowls include the Tsavo national park, Amboseli national park, Mt Elgon, Sibiloi/ Lake Turkana, Shompole/Lake Natron, Lake Jipe are all listed as Protected areas, IBAs, Ramsar sites or WHS.

***3.4. Has your country developed a management planning process for protected sites? If yes, please outline the types of management plans and organizations responsible for development and implementation.***

The Kenya Wildlife Service has initiated a management planning process for the protected areas. The plans are developed through a participatory process involving all the key public and private institutions, civil society groups, local communities and resources users. The Ramsar planning guidelines/tool is applied to guide the process. It is also important to mention that the plans are ecosystem based including the catchment basins of the wetlands. Several sites are at different levels of the planning process. Kenya Wildlife Service coordinates the implementation of these management plans.

b) The Wildlife and Forest conservation policies and strategies have specified the need to undertake integrated planning of all the protected areas including forest reserves in the country.

ii) The Ramsar convention Wise use principle underscores the need to have management plans for all wetlands especially those listed as Ramsar sites.

iii) The National Wetlands Policy has been drafted and underscores the importance of developing management plans of wetlands through a participatory process involving all the key stakeholders.

iv) The National Environment Action plan has provision that require that management plans be developed for the important conservation areas in the country

v) The National Biodiversity Action Plan and Strategy also specifies the important of developing management plans for the major conservation area.

ii) More than twenty protected areas have functional management plans and an additional ten sites have their planning process underway.

iii) Apart from the protected areas, there is also a policy to develop integrated management plans for all the Ramsar sites, World Heritage Sites and Man and Biosphere Reserves.

iv) Kenya will play a major role in a programme for the Important Bird Areas in Africa to be supported by BirdLife International. This will further improve the conservation of different staging areas for migratory birds in country.

**3.5. How many protected sites have formal management plans (please append a list of sites and their management planning status):**

**(a). Proposed?**

*Tana delta, Yala, Lake Solai, Diani Chale Marine Protected Area.*

**(b). In preparation?**

*Lake Jipe, Lake Bogoria, Lake Baringo, Lake Elementeita, Nyando wetlands in Lake Victoria, Nairobi National park*

**(c). Being implemented?**

*Lake Nakuru, Lake Naivasha, Lake Olbollosat, Saiwa swamp, Fourteen falls, Kiunga MPA, Malindi Marine Protected Area (MPA), Watamu MPA, Mombasa MPA, Kisite MPA., Amboseli National park, Meru National park,*

Apart from the wetland ecosystems listed above, the planning process covers all protected areas in the country. Emphasis for planning is placed on the national parks, Ramsar sites, World Heritage Sites, IBAs and Man and the Biosphere Reserves. Where the wetland is transboundary, then consultation is done with the neighboring countries as appropriate.

**3.6. What measures does your country have in place to ensure the wise use of wetlands habitats and to prevent habitat degradation e.g. pollution control and managing water resources? Please provide examples of best practice initiatives particularly involving cross-sectoral co-operation or public participation.**

- i) Kenya ratified Ramsar convention and other MEAs including the CBD several years ago and is guided by the principles of conservation and wise use of wetlands.
- ii) We are also guided by the principles of sustainable development which require protection of the environment and wise use of biological diversity resources during all socio-economic planning and implementation processes.
- iii) Environmental laws and regulations including EIA procedures do ensure that wetlands habitats and degradation are avoided.
- iv) The Water and Agricultural Acts has elaborate regulations and measures to deter water pollution.
- v) The Environmental Management and Coordination Act and Wildlife Conservation and Management Acts are comprehensive on protection of environment and wildlife, and wise-use practices. These Acts are also compliant with the Multilateral Environmental Agreements to which Kenya is a signatory especially Article 6 of the Convention on Biological Diversity. This Article states that countries shall prepare national strategies for protecting, and for sustainable exploitation of biodiversity. The Wetlands Policy currently being reviewed will further compliment the provisions of these Acts.
- vi) Other measures to ensure wise use of wetlands include training , public education and awareness at all levels and extension services to resources users
- vii) Wildlife and Wetlands conservation policies and legislations are supportive of the wise use principles.
- viii) EIA and Audit for all development programmes and activities being enforced in the country.
- ix) Land use planning and zonation is being undertaken in the country.

- x) Examples of best practice include the codes of conduct that have been developed for the flower farmers, tour operators, livestock keeper, geothermal power producers, wildlife managers, urban developers around Lake Naivasha. The codes of conduct are to ensure sustainable and wise use of wetland resources by these sectors that operate around the lake.

## **Rehabilitation and restoration**

### ***3.7. Does your country have a policy for the identification, rehabilitation and restoration of wetlands important for species covered by the Agreement? Please provide examples of rehabilitation and restoration projects and initiatives undertaken.***

- i) The National Biodiversity Action Plan and Strategy has provisions to ensure that wetlands are maintained in sound ecological status so that they may provide sustainable ecological services and products for national development.
- ii) Restoration programmes are underway to control invasive species in the lakes, rivers and water bodies in the country. Such lakes include Victoria, Naivasha, Baringo, Turkana, Olbollosat, Tana delta etc. Some of the programmes involve collaboration with neighboring countries like at Lake Victoria, Jipe and Turkana.
- iii) Apart from the invasive species, there is also effort to restore water quality and quantity in the wetlands through improvement of the land cover in the catchment basin, proper land use planning and management, and improvement of the buffering capacity of wetlands around the lakes concerned. These processes are being implemented in Lake Victoria, Nakuru, Naivasha, Olbollosat, Baringo and Bogoria.
- ii) All the management plans listed above aim at restoration of degraded sites within the catchment basins including reforestations and land cover recoveries, water and soils conservation measures, invasive species control, restoration of polluted wetlands etc. Restoration and rehabilitation is being conducted in almost all wetlands where there are conservation initiatives in the country.
- iii) Zonation of land and resource use practices within the management plans is also a strategy for restoration and rehabilitation of degraded sites.
- iv) Most of the lakes and wetlands being restored are critical habitats for waterbird species covered by the Agreement.

## **4. Management of human activities**

### **Hunting**

#### ***4.1. Outline the main features of legislation or legal measures in your country to control hunting of the species covered by the Agreement (e.g. use of lead shot and poisoned baits, and to eliminate illegal taking).***

- ii) Shooting or hunting of waterbirds is not a common activity in Kenya. It is done on a relatively small scale and only in a few isolated wetlands which are not within the protected area system

- iii) However, the current legislation has provisions for licensed bird shooting issued by the Kenya Wildlife Service. All licensed hunting operations can only be done in compliance with the regulations which also specify the methods of hunting to be followed.
- iv) A Code of conduct for bird shooting syndicates has been produced to ensure self regulation of the hunters and to set standards for good practice and sustainability of the resources. The CoC complements the national laws and regulations which are enforced by the authorities.
- iv) Use of lead shots, poisons or baits or any other unorthodox approach are prohibited by law.

**4.2. Does your country monitor hunting levels? If so, how is this information collated and reported?**

- ii) Hunting levels are first and foremost monitored and controlled by the licensing process which is able to limit or regulate the number of people that are allowed to take birds within a year or in a specific area.
- iii) Returns are made on the prescribed forms to declare the species and numbers of birds shot on a license. These returns provide parameters for monitoring of the hunting levels.
- iv) The declaration is also made on the place/site where the taking was conducted, method of hunting, date and time of hunting as well as the tools or equipment applied in the hunting process.
- v) In that regard, it is possible to compute and tally the total number of birds hunted from a specified wetland. Hunting of birds at specified wetlands may only be allowed during open seasons while no hunting would be permitted to take place during a closed season.
- vi) Emphasis is also given to monitoring of bird hunting through seasonal or biannual waterbird counts within the affected wetlands. The bird counts are essential for providing information on the overall status of birds in the wetland. It also gives indicators on the impacts of hunting if any.
- vii) Wardens who are in charge of the wetlands have to accompany the bird shooters to ensure they comply with all the regulations including certifying that the returns are filled in the forms and correctly.
- viii) Data from bird shooting is collated by the Wardens at the local level and also at national level at KWS Hqs for the whole country. KWS maintains a database on bird shooting activities and statistics in the country.
- ix) Collation of data from general biannual bird counts is done at the Ornithology department of NMK and also shared with Wetlands International for collation at regional and global levels.

**4.3. Describe action undertaken by hunting clubs and organizations to manage hunting activity e.g. co-operative action, issuing of licenses and proficiency testing of individual members.**

- i) One such place where waterbird shooting has been done is at Lake Olbollosat in central Kenya. Here, the hunting club has considered initiating and promoting monitoring and research on Yellow-billed Duck *Anas andulata* and Red-knobbed Coot *Fulica cristata*.

- ii) The group - Lake Olbollosat Bird Shooting Syndicate is a membership club with rules and regulations (CoC) governing their operations to ensure sustainability of bird shooting and good practice by all members. The codes ensure self regulation and compliance with the national laws and regulations.
- ii) The syndicate registered by KWS which is the national regulatory authority and has a working relationship with the local communities.
  - v) To improve the welfare of the local people living around the Lake, the group has provided support to schools and other local community economic initiatives.
  - vi) They set their own proficiency tests and recommend individual members for licensing by the national authority. On the other hand KWS also set a proficiency test for the applicants which they must pass before a license may be granted.

## **Eco-tourism**

### ***4.4. What is the status of eco-tourism programmes or initiatives in your country? Please provide examples of projects with an indication of the significant outcomes.***

Ecotourism is a major economic activity in Kenya and contributes 19% of the National GDP. Most of the tourism destinations and attractions include the wetlands, savanna, forests and coastal and marine ecosystems. Wetlands are particularly important for ecotourism due to the unique attractions provided by waterbirds and other recreational attributes and biological resources. The most important tourism destination wetlands include Lakes Nakuru, Naivasha, Elementeita, Bogoria, Baringo and the coastal and marine protected areas. Some of these areas are community owned and managed sites where benefits go direct to the communities.

Kenya Wildlife Service is working in collaboration with the other stakeholders in the tourism sector to develop infrastructure and provide logistics for tourism in these areas. Site-based local community ecotourism initiatives are also being promoted in a number of wetlands especially those outside the protected areas. In total there is an average of 600,000 international tourists coming to the country annually. Approximately 60% of these tourists go to the coast where the main attractions are wetlands within the beaches, coral reefs and inshore waters. There are also significant numbers of visitors going to the inland wetlands. Besides the international tourists, there are hundreds of thousands of local people who visit wetland areas for educational and recreational purposes every year.

### ***4.5. What social and economic benefits accrue to the local communities from the conservation of important waterbird sites?***

The main economic benefits are the income generation from ecotourism activities particularly in areas with rich avifauna attractions for tourists. The other economic benefits come from royalty and fees paid to the communities by the bird shooting syndicates like in Lake Olbollosat. The social benefits include the extended services that are provided to the local communities by development of infrastructure and amenities like access roads, water supply, communication facilities and power supply that may be developed to support ecotourism but are also used by the communities to promote development in the rural areas.

Employment of the local communities in ecotourism facilities like lodges and camps is a direct benefit. There are several people employed by the tourism sector in the rural areas. Also education and recreational facilities provided by wetlands with water birds is an important social and cultural benefit to the communities. Another benefit is the exchange of social and cultural values and understandings between the local communities and tourists from other parts of the globe. There is wider expansion of the knowledgebase among the communities as a result of the environment education and awareness programmes on the conservation and management of water birds.

Eco-tourism programmes being implemented by the Friends of Kinangop Plateau (Site-based IBA group) continues to promote wetlands conservation in central Kenya. In western Kenya, the Lake Victoria Sunset Birders (Site-based IBA group) has been active in creating awareness about papyrus swamps in the Kenyan sector of Lake Victoria and other staging sites for migratory waterbirds around the Kenyan sector of Lake Victoria. At Kenya's coast, different site conservation groups exist especially in places that are rich in avifauna like the Mida Creek and the Tana delta.

Although the benefits have not been properly quantified, there is no doubt that the local communities around wetlands do accrue significant amount of economic and social benefits through their involvement in conservation and management of waterbirds and other wetland attributes in their areas.

## **Other human activities**

### ***4.6. Does your country carry out Environmental Impact Assessment (EIA) of activities potentially affecting protected sites or areas important for species covered by the Agreement? If yes, briefly describe the main features of your EIA policy and procedures.***

The Environmental Management Co-ordination Act (EMCA, 2000) is a fundamental legal provision to ensure sustainable development through provisions of mandatory EIA and Audit procedures on development programmes that may have impacts on the environment. All proposed development activities must be granted EIA certificate before implementation. All existing development programmes must undertake Environmental audit before renewal of their licenses to operate.

Section 42 of EMCA has made detailed definition of wetlands and their resources with special reference to the riverbanks, lakeshores and seashores and other types of wetlands and specified that these wetlands must be accorded special attention through EAI procedures when development programmes are planned and implemented.

### ***4.7 Please describe the main features of your planning policy and provide examples of practical implementation (e.g. activities to minimizing disturbance of species populations or limit the impact of species populations on crops or fisheries).***

The policy is to have integrated management plans developed for all the key wetlands in the country.

The main feature of the plans is that they are developed on the basis of the guidelines and tools for planning provided by the Ramsar Convention. The provisions of other MEAs are also considered in the planning process.

National policies on the environment and sustainable development commitments including poverty alleviation are taken into consideration in the planning process.

Already there are plans for two Ramsar sites, six Marine Protected Areas, two World Heritage Sites and one Man and Biosphere Reserve.

Another feature of the plans is to ensure maintenance of the ecological integrity and productivity of the wetlands as a means of maximizing their ecological services and products that are essential to maintenance of life forms and welfare of mankind.

Identify and design conservation and wise use strategies in order to achieve maximum sustainable yield to the communities and the country.

The planning process is based on ecosystem approach covering the river/lake basins and executed through a multi-sectoral and consultative approach that involves all the key stakeholders.

Another feature of the plans is to identify the challenges affecting wetlands and design mitigation measures to address them.

Zonations of land use and activities within the wetland and ecosystem is a major feature of the plans to minimize disturbance of species populations or limit the impact of species populations on crops, fisheries and other resource use practices.

**2.4. *Please summarize any land-use conflicts emphasizing successful solutions to problems encountered in promoting the wise-use of waterbirds and their habitats.***

Conflicts have arisen as a result of draining or converting wetlands to agricultural lands in some places. Examples of these include Yala swamp and Tana delta. The other conflicts have arisen as a result of human settlements within wetlands like in Lake Olbollosat. In this case, the riparian land around the wetland is alienated for settlement purposes resulting in the loss of the wetland buffering capacity of the wetlands to the lake. Overexploitation of wetlands resources such as water abstraction in Lake Naivasha is also a major source of conflict. Likewise, closure of access corridors to the wetlands as a result of illegal land alienation in Lake Naivasha has caused conflicts among the stakeholders. Other conflicts include cases whereby waterbirds raid crops especially in the rice irrigation schemes in Mwea, Ahero and Yala swamp.

Solutions to the conflicts have been achieved through integrated planning and zonation of land use practices within some of the affected areas. Creating codes of conducts and regulations have assisted to mitigate conflicts related to over-exploitation of resources. Education and awareness programmes including capacity building through training also improve sustainable management practices and mitigate conflicts that arise due to lack of information sharing or technical capacity to management resources.

## **5. Research and monitoring**

### **Status of research and monitoring programmes for species**

**2.4. *How are priorities for research identified in your country? Please briefly describe your country's research programmes, including any bilateral or multilateral co-operative action, for wetland habitats and for species covered by the Agreement (e.g. studies into species population, ecology and migratory patterns). Please append a list of research activities initiated, ongoing or completed in the last three years.***

The Action Plans to the AEWA Agreement emphasize reporting on the status and trends of populations covered by the Agreement to be prepared at intervals of not more than three years. This reporting system is very closely linked to the regular updating and publication of *Waterbird Population Estimates*, which provides the basic data for AEWA reporting. Kenya has continued to provide reports on waterbirds monitoring on regular basis as a matter of commitment to the provisions of the AEWA, CMS, CBD, Ramsar convention and other Agreements.

The IUNC –WCPA requirement to establish a network of protected areas covering all the major ecosystems in the country. The PA establishment has to be preceded by research and inventories to have baseline information to facilitate PA establishment and to define the goals and objectives of each protected area.

Another research prioritization criterion is in respect to the national conservation and development priorities including the National Environmental Action Plan (NEAP), National Biodiversity Action Plan



and Strategy, the National Perversity Reduction and Strategy Paper, National Economic Development Plan. The requirements of EMCA on EIA and Audit will also lead to prioritization of research in respect to proposed development plans and activities.

Environmental Impacts arising from climate change, oil spills, pollution, siltation, eutrophication, loss of land cover, changes in the hydrological functions, human settlements, urbanization, infrastructure development like water supply, electricity supply, roads construction, agricultural activities, impoundment of rivers may also lead to prioritization of research activities to try to find solutions to the problems.

Examples of the on-going research activities include the Waterbird census programme that is undertaken in Kenya each January and July (for some sites). In addition, specific research programmes for different waterbird species covered by AEWA have been conducted and reported on regularly. (see Annex 5).

The Department of Ornithology, National Museums of Kenya has a primary responsibility to conduct research and monitoring programmes on waterbirds. It does this in collaboration with the AEWA Administrative Authority (Kenya Wildlife Service) and BirdLife International Partner (Nature Kenya). Based on monitoring data, priority research topics have been identified by the Department of Ornithology. These priority topics have spurred research on waterbirds in Kenya and encouraged collaborative linkages with the national and international research institutions.

The Department of Ornithology in collaboration with the University of Leicester, Wildfowl & Wetlands Trust (UK), Earthwatch and Baringo County Council initiated a flamingo satellite tracking in the southern Rift Valley in 2003. This project is ongoing and has proved useful in assessing the movement patterns and staging sites for flamingos in southern Rift Valley lakes of Kenya and Tanzania. Different research projects coordinated by Earthwatch are still ongoing at Lakes Naivasha and Bogoria. Other research programmes planned include the assessment of the effects of human disturbance on the ecology of waders with special focus on Kittlitz's Plover *Charadrius pecuarius* at Lakes Nakuru and Elementeita. A specific monitoring programme focusing on White Stork was also undertaken in Kenya in 2002-2003. The information generated has provided baseline data for the conservation of this species whose population is apparently declining within its range.

***5.2 What monitoring activities does your country undertake, including any bilateral or multilateral co-operative action, of wetland areas and species covered by the Agreement (e.g. national monitoring schemes, International Waterfowl Census)? Please append a list of monitoring activities or programmes initiated, ongoing or completed in the last three years***

Monitoring of wetlands and other key ecosystems is executed regularly as a component of the environmental protection and biodiversity conservation scheme. The parameters include water quality and quantity surveys, nutrient loads, heavy metal loads, invasive species, hydrological functions in terms of rainfall data, river flows and lake/ river levels, evaporation and evapotranspiration trends, water balance trends, siltation and sedimentation, land cover trends, land and resource use trends, biodiversity monitoring in terms of species diversity, abundance and distribution etc. Monitoring also include gauging the effectiveness of the institutional arrangements, policy, legal and management systems.

All the key wetlands in Kenya are being monitored on a regular basis. These include Lakes Naivasha, Nakuru, Elementeita, Bogoria, Baringo, Turkana, and Victoria. The hydrology of Rivers Tana, Kerio, Sondu Miriu are being monitored also in respect to the hydropower dams that are attached to these rivers. The marine and coastal wetlands including the MPAs are being monitored on a regular basis. Some of the institutions involved in monitoring include Kenya Wildlife Service, National Environment Management Authority, National Museums of Kenya, Kenya Marine and Fisheries Research Institute, Kenya Forestry Research Institute, Ministry of Water Resources Development and several Regional Development Authorities.



Waterbird monitoring programme in the major flyways in Kenya has continued uninterrupted since early 1990s as part of the African waterbird census programme coordinated by Wetlands International. Key staging areas in coastal, central, Rift Valley and western Kenya have been monitored consistently. The Darwin Initiative funded project for Important Bird Areas monitoring by the BirdLife International Partner in Kenya, Nature Kenya, and research programmes focusing on southern Rift Valley flamingo lakes by University of Leicester and Earthwatch Projects complemented the monitoring database for Kenya. The Wetlands Biodiversity Monitoring Scheme for eastern Africa has further enhanced the coordinated monitoring and information exchange among the east African countries.

**(ii) *Status and trends of migratory waterbirds covered and not covered by AEWA***

Numbers of water bird groups showed fluctuations on staging sites monitored consistently across Kenya over the period, 2003-2005 (Table 1). Of the species covered by AEWA, eleven Kenyan species are listed as regionally threatened in eastern Africa. Two species are vulnerable and the nine are in the near-threatened category. The eleven species showed fluctuations of different strengths in their populations in the last three years. Numbers of these species appeared to be declining within their ranges, but others remained stable (Table 2). On the other hand, 20 species not covered by AEWA continued to show decline in numbers within their ranges (Table 3). The estimated populations of waterbird species included in the AEWA Agreement and not regionally threatened covered by AEWA have remained in a fairly stable condition, but records of the other species were rare in some regions in Kenya (Table 4).

**Table 1.** The estimated mean numbers of waterbird families in the major flyways staging sites in Kenya estimated from the January counts, 2002-2005

Waterbird families	Nairobi & Central Kenya	North & South Coast	Lake Victoria*	Rift Valley
Grebes	1,000	20	10	5,400
Pelicans	130	30	20	3,200
Cormorants & Darter	800	100	30	4,300
Hérons	1,500	140	90	2,100
Storks	4,400	160	50	1,700
Ibises	879	90	50	2,200
Flamingos	50	590	10	1,200,000
Ducks	7,800	400	50	5,700
Cranes	120	No Data	20	30
Rallids	2,300	10	10	4,600
Stilts & Avocets	800	50	130	4,500
Jacanas	20	130	50	300
Pratincoles	No Data	10	20	40
Plovers & Sandpipers	1,900	6,200	240	17,000
Gulls & Terns	1,000	400	250	6,500

\*Census coverage is less than 2% of the Lakeshore

**Table 2.** The estimated mean numbers of waterbird species regionally threatened covered by AEWA. Data from January counts, 2002-2005.

Species	Estimated mean 2002-2005	Trend
Purple Heron <i>Ardea purpurea</i>	80	Decline
Great Egret <i>Casmerodius albus</i>	230	Decline
Woolly-necked Stork <i>Ciconia episcopus</i>	20	Decline
Lesser Flamingo <i>Phoenicopterus minor</i>	1.3 million	Stable
Cape Teal <i>Anas capensis</i>	1700	Decline
Striped Crake <i>Aenigmatolimnas marginalis</i>	No. Data	Unknown
Crab Plover <i>Dromas ardeola</i>	2600	Stable
Chestnut-banded Plover <i>Charadrius pallidus</i>	530	Decline
Brown-chested Plover <i>Vanellus superciliosus</i>	No Data	Unknown
Great Snipe <i>Gallinago media</i>	60	Decline
Roseate Tern <i>Sterna dougallii</i>	No Data	Unknown

**Table 3.** The estimated mean numbers of waterbird species regionally threatened not covered by AEWA. Data from January counts, 2002-2005.

Species	Estimated mean 2002-2005	Trend
Great Crested Grebe <i>Podiceps cristatus</i>	10	Decline
Black-necked Grebe <i>Podiceps nigricolis</i>	1,300	Stable
African Darter <i>Anhinga rufa</i>	80	Decline
White-backed Night Heron <i>Gorsachius leuconotus</i>	No Data	Unknown
Black Heron <i>Egretta ardesiaca</i>	50	Stable
Goliath Heron <i>Ardea goliath</i>	50	Decline
Green- backed Heron <i>Butorides striatus</i>	200	Decline
Shoebill <i>Balaeniceps rex</i>	No Data	Unknown
Saddle-billed Stork <i>Ephippiorhynchus senegalensis</i>	10	Decline
African Green Ibis <i>Bostrychia olivacea</i>	No Data	Unknown
*Maccoa Duck <i>Oxyura maccoa</i>	60	Decline
African Black Duck <i>Anas sparsa</i>	10	Decline
African Finfoot <i>Podica senegalensis</i>	No Data	Unknown
Grey Crowned Crane <i>Balearica regulorum</i>	200	Decline
Striped Flufftail <i>Sarothrura affinis</i>	No Data	Unknown
Corncrake <i>Crex crex</i>	No Data	Unknown
African Crake <i>Crex egregia</i>	No Data	Unknown
*Rock Pratincole <i>Glareola nuchalis</i>	No Data	Unknown
Lesser Jacana <i>Microparra capensis</i>	10	Decline
*African Skimmer <i>Rynchops flavirostris</i>	30	Decline

\*Proposed for CMS listing.

**Table 4.** The estimated mean numbers of waterbird species included in the AEWA agreement and not regionally threatened covered by AEWA. Data from January counts, 2002-2005.

Species	Nairobi & Central Kenya	North & South Coast	*Lake Victoria	Rift Valley
Great White Pelican <i>Pelecanus onocrotalus</i>	67	85	-	71,223
Madagascar Pond-Heron <i>Ardeola idea</i>	-	-	-	-
Rufous-bellied Heron <i>Ardeola rufiventris</i>	-	-	-	-
Little Bittern <i>Ixobrychus minutus</i>	-	-	-	2
Dwarf Bittern <i>Ixobrychus sturmi</i>	-	-	-	-
Yellow-billed Stork <i>Mycteria ibis</i>	819	101	22	1,124
Black Stork <i>Ciconia nigra</i>	46	1	12	55
White Stork <i>Ciconia ciconia</i>	87	-	-	85
Glossy Ibis <i>Plegadis falcinellus</i>	98	185	2	500
Sacred Ibis <i>Threskiornis aethiopicus</i>	489	195	25	1,026
Eurasian Spoonbill <i>Platalea leucorodia</i>	-	-	-	-
African Spoonbill <i>Platalea alba</i>	3	-	-	1
Greater Flamingo <i>Phoenicopterus ruber</i>	1	1,025	-	24,572
Fulvous Whistling-Duck <i>Dendrocygna bicolor</i>	134	22	23	65
White-faced Whistling-Duck <i>Dendrocygna viduata</i>	257	180	-	41
White-backed Duck <i>Thalassornis leuconotus</i>	11	4	-	6
Egyptian Goose <i>Alopochen aegyptiacus</i>	499	40	1	1,635
Spur-winged Goose <i>Plectropterus gambensis</i>	4	-	-	56
Comb Duck <i>Sarkidiornis melanotos</i>	3	26	12	12
African Pygmy-goose <i>Nettapus auritus</i>	-	-	-	-
Eurasian Wigeon <i>Anas Penelope</i>	-	-	-	-
Gadwall <i>Anas strepera</i>	-	-	-	-
Common Teal <i>Anas crecca</i>	1	-	-	53
Mallard <i>Anas platyrhynchos</i>	-	-	-	-
Southern Pochard <i>Netta erythrophthalma</i>	169	12	-	1,520
Ferruginous Duck <i>Aythya nyroca</i>	-	-	-	-
Tufted Duck <i>Aythya fuligula</i>	9	-	-	-
Streaky-breasted Flufftail <i>Sarothrura boehmi</i>	-	-	-	-
Baillon's Crake <i>Porzana pusilla</i>	-	-	-	-
Spotted Crake <i>Porzana porzana</i>	-	-	-	-
Black-winged Stilt <i>Himantopus himantopus</i>	933	147	265	3,147
Pied Avocet <i>Recurvirostra avosetta</i>	53	35	-	3,247
Collared Pratincole <i>Glareola pratincola</i>	-	1	-	1
Black-winged Pratincole <i>Glareola nordmanni</i>	-	-	-	-
Eurasian Golden Plover <i>Pluvialis apricaria</i>	-	-	-	-
Grey Plover <i>Pluvialis squatarola</i>	-	456	-	-
Common Ringed Plover <i>Charadrius hiaticula</i>	-	-	-	-

Table 4 cont'd...

Species	Nairobi & Central Kenya	North & South Coast	*Lake Victoria	Rift Valley
Little Ringed Plover <i>Charadrius dubius</i>	-	-	-	-
Kittlitz's Plover <i>Charadrius pecuarius</i>	9	14	-	637
Three-banded Plover <i>Charadrius tricollaris</i>	46	5	2	87
Kentish Plover <i>Charadrius alexandrinus</i>	-	-	-	-
White-fronted Plover <i>Charadrius marginatus</i>	-	149	-	-
Greater Sandplover <i>Charadrius leschenaultia</i>	-	724	-	-
Caspian Plover <i>Charadrius asiaticus</i>	-	3	-	1
Northern Lapwing <i>Vanellus vanellus</i>	-	-	-	-
Spur-winged Plover <i>Vanellus spinosus</i>	136	764	29	250
White-headed Lapwing <i>Vanellus albiceps</i>	-	-	-	-
Wattled Lapwing <i>Vanellus senegallus</i>	-	-	-	-
Senegal Lapwing <i>Vanellus lugubris</i>	-	-	-	-
Black-winged Lapwing <i>Vanellus melanopterus</i>	-	-	-	-
Crowned Lapwing <i>Vanellus coronatus</i>	2	-	-	21
White-tailed Lapwing <i>Vanellus leucurus</i>	-	-	-	-
Common Snipe <i>Gallinago gallinago</i>	11	1	-	74
Jack Snipe <i>Lymnocyptes minimus</i>	-	-	-	-
Black-tailed Godwit <i>Limosa limosa</i>	5	3	-	171
Bar-tailed Godwit <i>Limosa lapponica</i>	-	3	-	-
Whimbrel <i>Numenius phaeopus</i>	-	287	-	-
Slender-billed Curlew <i>Numenius tenuirostris</i>	-	-	-	-
Eurasian Curlew <i>Numenius arquata</i>	-	121	-	-
Spotted Redshank <i>Tringa erythropus</i>	2	-	-	6
Common Redshank <i>Tringa tetanus</i>	-	1	-	5
Marsh Sandpiper <i>Tringa stagnatilis</i>	162	178	9	627
Common Greenshank <i>Tringa nebularia</i>	36	222	6	167
Green Sandpiper <i>Tringa ochropus</i>	28	2	-	27
Wood Sandpiper <i>Tringa glareola</i>	224	69	-	274
Terek Sandpiper <i>Tringa cinerea</i>	-	345	-	-
Common Sandpiper <i>Tringa hypoleucos</i>	184	65	23	1,016
Ruddy Turnstone <i>Arenaria interpres</i>	-	21	-	-
Great Knot <i>Calidris tenuirostris</i>	-	-	-	-
Red Knot <i>Calidris canutus</i>	-	-	-	-
Sanderling <i>Calidris alba</i>	-	137	-	-
Little Stint <i>Calidris minuta</i>	995	4,490	1	14,598
Temminck's Stint <i>Calidris temminckii</i>	-	-	-	46
Dunlin <i>Calidris alpina</i>	-	-	-	-
Curlew Sandpiper <i>Calidris ferruginea</i>	1	7,159	-	1,032

Table 4 cont'd...

Species	Nairobi & Central Kenya	North & South Coast	*Lake Victoria	Rift Valley
Broad-billed Sandpiper <i>Limicola falcinellus</i>	-	70	-	-
Ruff <i>Philomachus pugnax</i>	396	94	7	7,261
Red-necked Phalarope <i>Phalaropus lobatus</i>	-	2	-	-
Grey Phalarope <i>Phalaropus fulicaria</i>	-	-	-	-
White-eyed Gull <i>Larus leucophthalmus</i>	-	-	-	-
Sooty Gull <i>Larus hemprichii</i>	-	561	-	-
Great Black-headed Gull <i>Larus ichthyaetus</i>	-	-	-	-
Slender-billed Gull <i>Larus genei</i>	-	-	-	-
Gull-billed Tern <i>Sterna nilotica</i>	2	292	395	376
Caspian Tern <i>Sterna caspia</i>	-	113	-	4
Lesser Crested-Tern <i>Sterna bengalensis</i>	-	595	-	-
Great Crested-Tern <i>Sterna bergii</i>	-	-	-	-
Sandwich Tern <i>Sterna sandvicensis</i>	-	-	-	-
Common Tern <i>Sterna hirundo</i>	-	2,407	-	-
Little Tern <i>Sterna albifrons</i>	-	-	-	-
Saunders's Tern <i>Sterna saundersi</i>	-	3,185	-	-
White-cheeked Tern <i>Sterna repressa</i>	-	-	-	-
White-winged Tern <i>Chlidonias leucopterus</i>	716	198	1	1,593
Black Tern <i>Chlidonias niger</i>	-	-	-	-

\*Census coverage is less than 2% of the Lakeshore

- No data

## **6. Education and information**

### **Training and development programmes**

#### ***6.1. Describe the status of training and development programmes, which support waterbird conservation and implement the AEWA Action Plan.***

The Ramsar convention guidelines and tools on training are applied to guide the design, development and implementation of the wetlands conservation management training programme in Kenya. Local training manuals and curricula has been developed at KWSTI in conformity with these guidelines that have been adapted after training needs assessments for different cadres of stakeholders.

The KWS Wetlands Programme is responsible for most of the wetlands which are within the protected area system. Training programmes that waterbird conservation includes tertiary education for managers, Wildlife Conservation and Management Course at Mweka Training College, collaborative training with a number of Research Institutes like KEMFRI, KARI and workshops and seminars and demonstrations in the field.

The Department of Ornithology, National Museums of Kenya has also developed monitoring protocols for waterbirds. Training programmes on monitoring are conducted for the site-based conservation groups at wetlands sites in collaboration with the BirdLife International partner in Kenya. In addition, the Department of Ornithology has continued to conduct Fundamentals of Ornithology courses each April. Waterbird identification and monitoring techniques modules are included in these courses.

There are also international courses undertaken by the managers and researchers in foreign universities and institutions like RIZA in the Netherlands and elsewhere.

#### ***6.2. What bilateral or multilateral co-operative action is your country undertaking to develop training programmes and share examples of good practice?***

The Kenya Wildlife Training Institute at Naivasha (KWSTI) continues to play a leading role in building capacity in Kenya and Africa on Wetlands Management Planning, Inventories, Monitoring, Assessments, EIA procedures, Communication, International policies and legislation, Information management etc. A number of participants from different countries in Africa attend the course each year. Linkages have been maintained with the national and international non-governmental organizations such as World Wildlife Fund (WWF, Eastern Africa Regional Office), World Conservation Union (IUCN, Eastern Africa Regional Office) and BirdLife International among others to strengthen the training programmes has been executed. Kenya hosts the BirdLife International Africa Division office. Regional linkages in eastern Africa is further strengthened through the activities of the regional Wetlands Biodiversity Monitoring Scheme for eastern Africa that coordinates a regional programme on waterbird monitoring, information exchange and capacity building.

### **Raising public awareness**

#### ***2.4. Describe activities to raise public awareness of the objectives of the AEWA Action Plan. Please outline any particular successes generating public interest in, and securing support for, waterbird and wetland conservation (e.g. campaigns, information notes or other initiatives)?***

Public awareness of the objectives of the AEWA Action plan are an integral part of the awareness programmes on wetlands conservation and wise use CEPA activities being implemented by all the key



stakeholders. The medium of awareness include a wide variety of publications in terms of leaflets, posters, pamphlets, maps. There are electronic and media awareness programmes. Training, workshops, seminars, meetings and demonstrations are also applied to promote awareness among stakeholders and communities. The collaborating organizations continue to play leading roles in promoting awareness among stakeholders at all levels. In addition, Kenya has participated in international meetings that touched on issues related to wetlands conservation. Information about waterbirds monitoring and results are disseminated through publications and reports produced over the period (see Annex 5).

## **7. Final comments**

### **7.1. *General comments on the implementation of the AEWA Action Plan***

The implementation of AEWA is not executed in a distinct manner. It is implemented as an integral component of wetlands conservation and management programme. The major challenge that the AEWA implementation programmes continues to face in Kenya remains lack of adequate resources. Although the AEWA action plan is very detailed and elaborate, implementation is not consistent and steady due to inadequacy of resources. The support for implementation should actually come from within the country, but has not been forthcoming because of low national economic performance. To optimize the implementation and particularly the waterbird monitoring programme without compromising the data quality, wider collaborations have been established with different national and international organizations based in Kenya.

### **7.2. *Observations concerning the functions and services of the various AEWA bodies***

#### **(a) *The Agreement Secretariat***

The service by the secretariat in producing and circulating information through newsletters and other materials was satisfactory over the last three years. Support in developing species action plans was particularly useful.

#### **(b) *International organizations***

The international organizations have played useful roles in enabling the Implementations of Action Plans in Kenya. Birdlife International, Wetlands international, WWF, IUCN and Ramsar are making complementary support to AEWA in the conservation and management of water birds. The organizations have continued to support the monitoring programmes on water birds in the country.

#### **(c) *AEWA NGO partners***

As noted under (b) above.

### **7.3. *How might the Action Plan be further developed as a practical aid for national and international conservation of migratory waterbirds?***

Development of Action Plan should be guided by the status of species whereby priority should be accorded to the endangered species.

Regional and sub-regional Agreements on specific endangered species should be given priority, i.e. flamingoes in eastern Africa.

Capacity to implement Species Action plans should be boosted. It does not add much value to have Action Plans that are not implemented due to lack of resources.

Specific research projects and monitoring programmes in developing countries such as Kenya should be supported. This should be done under the auspices of Wetlands International that has been very supportive of monitoring programme in Kenya since early 1990s.

## **8. Progress to implement Resolutions and Recommendations of the Meeting of the Parties.**

### ***8.1. Please summarize progress to implement decisions of previous Meetings of the Parties.***

Most of the Resolutions and Recommendations are considered for implementation under the various thematic areas of wetlands conservation and management programmes in Kenya. A comprehensive ecosystem approach to wetlands conservation including special actions on the species has been adopted as the way forward.

Kenya has been working generally for the implementation of the resolutions and recommendations for improving conditions of wetland habitats for waterbirds. The country has continued to participate and cooperate in preparation of species and site action plans.

## **9. OPTIONAL SECTION-Planned and future actions**

*Contracting Parties are invited to outline below any further information regarding the aims of the Agreement, for example, planned actions or other informative examples.*

### ***1. Species conservation***

Analyze the species trends and advocate for listing of those species whose status are not favorable. Discussions are underway at present about the possibility of upgrading Chestnut-banded Plover *Charadrius pallidus* to the Near-Threatened (NT) category. In Kenya, this species has shown overall decline trend within its distribution range. Transboundary arrangements will be made for joint species action plans particularly for those species whose trends and status are unfavorable in eastern Africa region.

### ***2. Habitat conservation***

- b) Inventory and develop site action plans.
- c) Ensure implementation of existing site action and management plans.
- d) Propose more potential sites for Ramsar listing under different criteria.
- e) Propose more sites to be gazetted as protected areas and designated as WHS, MAB reserves and IBAs.
- f) Restore degraded sites and habitats
- g) Ensure ecological functions of the wetlands and other related habitats

### ***3. Management of human activities***

- b) Encourage adoption and application of wise-use principles for wetlands.
- c) Enforce the implementation of the provisions of different legislations and policies governing wetlands conservation in Kenya.
- d) Implement zonation for various land use practices
- e) Ensure EIA and Audit procedures are conducted of development proposals and activities.
- f) Train people especially researchers, planners, managers, resources users on wise use principles and sustainable development procedures.

### ***4. Research and monitoring***

- b) Continued and expanded monitoring for waterbirds to cover more sites;
- c) Conduct and encourage more research and inventories focusing on priority research topics
- d) Conduct research on priority issues to generate information for decision making.
- e) Establish a database and information exchange mechanisms locally, nationally and internationally.

### ***5. Education and information***

- b) Capacity building programmes for waterbird monitoring and information management

- c) Production of information materials such as a simple manuals on waterbird census techniques for Kenya's wetlands.
- d) Secure funds and other resources sustain the existing programmes that aim at meeting the AEWA Implementation Priorities and Action Plans.

**ANNEX 1.** Proposals developed for the inclusion of Kenyan waterbird species on the appendices of the Convention on the Conservation of Migratory species of Wild Animals (CMS)

<b>PROPOSAL 1</b>	
<b>A.</b>	<b>PROPOSAL:</b> Listing the entire population of <i>Ardeola idea</i> on Appendix I
<b>B.</b>	<b>PROPONENT:</b> Government of Kenya
<b>C.</b>	<b>SUPPORTING STATEMENT</b>
<b>1.</b>	<b>Taxon</b>
1.1	Class: Aves
1.2	Order: Ciconiiformes
1.3	Family: Ardeidae
1.4	Species: <i>Ardeola idae</i>
1.5	Common names: Madagascar Squacco Hero/Madagascar Pond-heron
<b>2.</b>	<b>Biological data</b>
2.1	<u>Distribution:</u> Breeds in Madagascar (throughout the country, but always uncommon), Seychelles (on Aldabra island) and the island of Europa (Réunion, to France). It has a large non-breeding range in Central and East Africa including Burundi, Comoros, the Democratic Republic of Congo, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe.
2.2	<u>Population:</u> The population is estimated at 2,000 – 6,000 and is decreasing, with a decline reported over the last 50 years, most notably on the high plateau of Madagascar.
2.3	<u>Habitat:</u> Shallow bodies of water, ringed with vegetation or with floating plants; favours wetlands in wooded habitats rather more than some closely related herons. Occasionally in mangroves and on the seashore.
2.4	<u>Migrations:</u> In Madagascar, breeds from October to March. Migrates to tropical Africa mainly from May to October, though some non-breeding birds remain there all year round.
<b>3.</b>	<b>Threat data</b>
3.1	<u>Direct threats:</u> Exploitation of eggs and young is the most serious threat on the breeding grounds. Habitat destruction is a problem throughout its range.
3.2	<u>Habitat destruction:</u> The loss and degradation of wetlands is likely to be partly responsible for the decline of this species. Its generally thin distribution means that the conservation of a number of well-spread sites is important, rather than a few sites holding large numbers of the species.
3.3	<u>Indirect threats:</u> The species may suffer from competition with the closely related Squacco Heron <i>Ardeola ralloides</i> , which is better adapted to human-made wetland habitats.
3.4	<u>Threats connected especially with migrations:</u> None known.
3.5	<u>National and international utilization:</u> The eggs and young of the species are heavily exploited at many of its breeding colonies in Madagascar, and perhaps elsewhere.
<b>4.</b>	<b>Protection status and needs</b>
4.1	<u>National protection status:</u> There are few published data on national protection status. In Kenya, the species is protected under Wildlife Act like all other species. It is presumed that this bird is given general protection in those countries that have enacted species protection legislation. It should now be added, as appropriate, to such appendices as cover endangered species.
4.2	<u>International protection status:</u> The species appears on Appendix II of CMS and Annex II of AEWAs.
4.3	<u>Additional protection needs:</u> Enforcement of protection at the breeding colonies is essential to the successful conservation of the species.
<b>5.</b>	<b>Range States:</b> Burundi, Comoros, Democratic Republic of Congo (CMS Party), Kenya (CMS Party), Malawi, Mozambique, Rwanda (CMS Party), Tanzania (CMS Party), Uganda (CMS Party), Zambia and Zimbabwe.
<b>6.</b>	<b>Comments from Range States:</b> No comment
<b>7.</b>	<b>Additional remarks:</b> Monitoring programme currently being undertaken should continue to generate more data on the species
<b>8.</b>	<b>References</b>
	BirdLife International (2000) <i>Threatened Birds of the World</i> . Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International.
	BirdLife web site <a href="http://www.birdlife.net/datazone/index/xxxx.html">http://www.birdlife.net/datazone/index/xxxx.html</a> : accessed 15 June 2005
	Brown, Urban and Newman (1982) <i>The Birds of Africa</i> Vol. 1, Academic Press, San Diego and London

## PROPOSAL 2

<b>A.</b>	<b>PROPOSAL:</b>	Listing the entire population of <i>Oxyura maccoa</i> on Appendix I
<b>B.</b>	<b>PROPONENT:</b>	Government of Kenya
<b>C.</b>	<b>SUPPORTING STATEMENT</b>	
<b>1.</b>	<b>Taxon</b>	
1.1	Class:	Aves
1.2	Order:	Anseriformes
1.3	Family:	Anatidae
1.4	Species:	<i>Oxyura maccoa</i>
1.5	Common names:	English: Maccoa Duck; French: Érismaure maccoa
<b>2.</b>	<b>Biological data</b>	
2.1	<u>Distribution:</u>	Predominantly Afrotropical duck species of inland wetlands. Found in Ethiopian highlands, eastern and southern Africa regions.
2.2	<u>Population:</u>	Considerable differences exist on reports in abundance and distribution in East Africa. In East Africa the population is estimated at 1000-1500, Ethiopia, 500-3000, Southern Africa <10000. Generally numbers are decreasing within its range, and in Kenya, the species is listed as rare with a population estimate of about 700.
2.3	<u>Habitat:</u>	Resident on alkaline and freshwater lakes, shallow waters and swamps with fringing vegetation. Are bottom feeders where they dive to sift the bottom mud for small invertebrates, plant debris and seeds. Males are territorial during the breeding seasons. In Kenya, it is uncommon in its preferred habitats in the Rift Valley and central highlands, and ranges mainly above 1500 m above sea level.
2.4	<u>Migrations:</u>	Mainly sedentary with small-scale dispersive movements in eastern and southern Africa. In most cases migrations are seasonal subject to the availability of suitable habitats during dry seasons. In Kenya, it migrates regularly within its range, but there are no adequate details about movements.
<b>3.</b>	<b>Threat data</b>	
3.1	<u>Direct threats:</u>	Drowning in fishing nets on lakes is common for this species. Habitat changes such as drainage and discharge of wastes also directly affect this species. Illegal and recreational hunting has been reported in some areas within its range. Diseases associated with the direct pollution to the wetland ecosystems could be affecting the species, but this has not been extensively investigated.
3.2	<u>Habitat destruction:</u>	Degradation of wetlands through from sewage, industrial effluents and agricultural runoffs that find their ways to the wetlands. Loss of catchments due to degradations affect the hydrology and water volumes for the major lakes where the species is found in Kenya.
3.3	<u>Indirect threats:</u>	Though not documented in Kenya, competition with other duck species could be happening. Nest predations by other wetland species could also be affecting its breeding performance.
3.4	<u>Threats connected especially with migrations:</u>	The continued encroachment, drainage of particular wetlands and invasive species in areas where it inhabits. Incoherent legislations governing species conservation and land use around the preferred habitats for the species.
3.5	<u>National and international utilization:</u>	No direct utilization known in Kenya, but the species is perhaps utilized elsewhere within the range.
<b>4.</b>	<b>Protection status and needs</b>	
4.1	<u>National protection status:</u>	Like all other wildlife species in Kenya, the species is protected under Wildlife Act but has no special protection at present.
4.2	<u>International protection status:</u>	The species is listed as vulnerable (VU A1b,d; A2b,d; C1; C2b (BirdLife International)). But not listed in Appendices I or II of CMS. In eastern Africa, the species is listed as regionally threatened.
4.3	<u>Additional protection needs:</u>	Enforcement of protection of the staging wetlands for the species in the Afrotropical region is necessary. Development of species action plan would further enhance its conservation.
<b>5.</b>	<b>Range States:</b>	Ethiopia, Eritrea, Sudan, Kenya, Uganda, Tanzania, Rwanda, Burundi, DRC (Zaire), Malawi, Angola, Namibia, Zambia, Mozambique, Botswana, Zimbabwe, South Africa, Swaziland, Lesotho. Most countries within the Range States are CMS Parties.
<b>6.</b>	<b>Comments from Range States:</b>	Range States are currently involved in the development of Maccoa Duck Species Action Plan for the species.
<b>7.</b>	<b>Additional remarks:</b>	The on-going monitoring programme for the species under the Africa Waterbird Census programme coordinated by Wetlands International should continue and expand to more marginal areas within the Range States including the sites that have not been monitored consistently. There is need to develop a Memorandum of Understanding for the conservation and management of the species and its habitats among the Range States.
<b>8.</b>	<b>References</b>	
		BirdLife International (2000) <i>Threatened Birds of the World</i> . Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International.
		Bennun, L.A. & Njoroge, P. 1999. Important Bird Areas. EANHS, Nairobi.
		BirdLife web site <a href="http://www.birdlife.net/datazone/index/xxxx.html">http://www.birdlife.net/datazone/index/xxxx.html</a> : accessed 15 June 2005
		Wetlands International. 2002. Waterbird population estimates – third edition. Wetlands International Global Series No. 12. Wageningen, The Netherlands.
		Zimmerman, D.A., Turner D.A. & Pearson, D.J. 1999. Birds of Kenya and Northern Tanzania. Russell Friedman Books: South Africa.

<b>PROPOSAL 3</b>	
<b>A. PROPOSAL:</b>	Listing the entire population of <i>Rynchops flavirostris</i> on Appendix II
<b>B. PROPONENT:</b>	Government of Kenya
<b>C. SUPPORTING STATEMENT</b>	
<b>1. Taxon</b>	
1.1 Classis:	Aves
1.2 Order:	Charadriiformes
1.3 Family:	Rynchopidae
1.4 Species:	<i>Rynchops flavirostris</i>
1.5 Common names:	English: African Skimmer, Scissorbill; French: Bec-en-ciseaux d'Afrique
<b>2. Biological data</b>	
2.1	<b>Distribution:</b> Distributed in the Afrotropical region in major rivers and lakes south of the Sahara. Irregular and uncommon at several widely scattered localities but frequents and breeds in small numbers in eastern and southern Africa.
2.2	<b>Population:</b> The numbers are estimated at 7,000 – 13,000 (West & Central Africa), 8000-12000 (East and southern Africa). Most colonies of the species support about 50 pairs.
2.3	<b>Habitat:</b> Large rivers of low waters, bays, lakes, coastal lagoons, salt pans and open marshes. Rests and breeds on sand bars and beaches within its range.
2.4	<b>Migrations:</b> Locally common resident in the Afrotropical region. Migrates north and south of Sahara in large rivers and inland lakes.
<b>3. Threat data</b>	
3.1	<b>Direct threats:</b> Habitat disturbance of colonies by human and cattle. Disturbance generally affects its breeding performance. Egg collections have been reported in some Range States. Occasional rise in water levels during breeding swamps the breeding islands affecting breeding success.
3.2	<b>Habitat destruction:</b> General catchments degradations that affect the river flows and water volumes of lakes. Pollution and chemical use around lakes that affect fish abundance for this species and for all other fish eating birds.
3.3	<b>Indirect threats:</b> Overfishing and decimation of native fish fauna by introduced predators in some wetlands within its distribution range. Dam buildings that affect the river flows and competition from other fish eating birds particularly terns could be other factors affecting the species.
3.4	<b>Threats connected especially with migrations:</b> None known.
3.5	<b>National and international utilization:</b> None known
<b>4. Protection status and needs</b>	
4.1	<b>National protection status:</b> Protected under Wildlife Act as all other wildlife species in Kenya, but has no special protection at present.
4.2	<b>International protection status:</b> Listed as globally near-threatened (NT). Additionally listed in eastern Africa as regionally threatened/vulnerable. Presently not listed in any of the CMS Appendices.
4.3	<b>Additional protection needs:</b> Protection of the known breeding colonies and staging areas is essential within the Range States.
<b>5. Range States:</b>	Senegal, Niger, Mali, Nigeria, Cameroon, Chad, DRC (Zaire), Uganda, Kenya, Tanzania, Zambia, Zimbabwe, Mozambique, Malawi, Angola.
<b>6. Comments from Range States:</b>	Kenya: Species currently listed as a priority for more inventories and breeding surveys.
<b>7. Additional remarks:</b>	A monitoring programme for waterbirds including this species is on-going in Kenya, but more specific research programmes targeting this species has been prioritized.
<b>8. References</b>	
	BirdLife International (2000) <i>Threatened Birds of the World</i> . Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International.
	Bennun, L. A. & Njoroge, P. 1996. Birds to watch in East Africa : A preliminary red data list. Centre for Biodiversity, National Museums of Kenya Research Reports. Ornithology 23.
	Bennun, L.A. & Njoroge, P. 1999. Important Bird Areas. EANHNS, Nairobi.
	BirdLife web site <a href="http://www.birdlife.net/datazone/index/xxxx.html">http://www.birdlife.net/datazone/index/xxxx.html</a> : accessed 15 June 2005.
	del Hoyo, J., Elliott, A. & Sargatal, J. eds. 1992. Handbook of the birds of the world, Lynx Edicions, Barcelona.
	Lewis A. & Pomeroy, D. 1989. Bird Atlas of Kenya. Balkema: Rotterdam.
	Sinclair, I. & Ryan, P. 2003. Birds of Africa south of the Sahara. Struik Publishers, Cape Town.
	Urban, E.K., Fry, C.H., Keith, C. eds. 1986. Birds of Africa. Vol. 1, Academic Press, London.
	Wetlands International. 2002. Waterbird population estimates – third edition. Wetlands International Global Series No. 12. Wageningen, The Netherlands.
	Zimmerman, D.A., Turner D.A. & Pearson, D.J. 1999. Birds of Kenya and Northern Tanzania. Russell Friedman Books: South Africa.

## PROPOSAL 4

- A. PROPOSAL:** Listing the entire population of *Glareola nuchalis* on Appendix II
- B. PROPONENT:** Government of Kenya
- C. SUPPORTING STATEMENT**
1. Taxon
    - 1.1 Class: Aves
    - 1.2 Order: Charadriiformes
    - 1.3 Family: Glareolidae
    - 1.4 Species: *Glareola nuchalis*
    - 1.5 Common names: English: Rock Pratincole; French: Glarède aureole
  2. **Biological data**
    - 2.1 Distribution: Distributed in West and central Africa. Scarce in eastern Africa.
    - 2.2 Population: No detailed census data available, but the best guess information available puts the number at >25,000 within its distribution range.
    - 2.3 Habitat: Exposed rocks in large rivers and streams used for breeding. May rest on sandbars, when rivers flood. Also found in coastal localities and other inland waters.
    - 2.4 Migrations: Locally common resident and regular intra-African migrant. Migrates within its distribution range. Most post breeding dispersal occur during the wet season.
  3. **Threat data**
    - 3.1 Direct threats: Unpredictable fluctuations of water levels of local rivers during breeding seasons affect the breeding performance. Sand mining along rivers have severe impacts on the availability of suitable habitats in the riparian areas for nesting.
    - 3.2 Habitat destruction: Riparian land use activities within the range states limits the availability of suitable roosting and nesting areas along rivers.
    - 3.3 Indirect threats: The loss and degradation of catchments for all wetlands within its range.
    - 3.4 Threats connected especially with migrations: None known.
    - 3.5 National and international utilization: None known
  4. **Protection status and needs**

Generally does not have unfavourable status within the range. But in eastern Africa, it is of special interest due to its thin distribution.

    - 4.1 National protection status: There are few published data on national protection status within Range States. In Kenya, the species has no special protection status.
    - 4.2 International protection status: Listed as regionally threatened in eastern Africa.
    - 4.3 Additional protection needs: Species conservation action plan needed for this species among the Range States.
  5. **Range States:** Sierra Leone, Cameroon, Chad, Nigeria, Gabon, Angola, Sudan, Ethiopia, Tanzania, Botswana, Zimbabwe, Zambia, Kenya.
  6. **Comments from Range States:** Kenya: More surveys required to assess the status of the species in western Kenya
  7. **Additional remarks:** No remarks
  8. **References**

BirdLife International (2000) *Threatened Birds of the World*. Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International.

Bennun, L. A. & Njoroge, P. 1996. Birds to watch in East Africa : A preliminary red data list. Centre for Biodiversity, National Museums of Kenya Research Reports. Ornithology 23.

Bennun, L.A. & Njoroge, P. 1999. Important Bird Areas. East Africa Natural History Society, Nairobi.

BirdLife web site <http://www.birdlife.net/datazone/index/xxxx.html>: accessed 15 June 2005.

del Hoyo, J., Elliott, A. & Sargatal, J. eds. 1992. Handbook of the birds of the world, Lynx Edicions, Barcelona.

Lewis A. & Pomeroy, D. 1989. Bird Atlas of Kenya. Balkema: Rotterdam.

Sinclair, I. & Ryan, P. 2003. Birds of Africa south of the Sahara. Struik Publishers, Cape Town.

Urban, E.K., Fry, C.H., Keith, C. eds. 1986. Birds of Africa. Vol. 1, Academic Press, London.

Wetlands International. 2002. Waterbird population estimates – third edition. Wetlands International Global Series No. 12. Wageningen, The Netherlands.

Zimmerman, D.A., Turner D.A. & Pearson, D.J. 1999. Birds of Kenya and Northern Tanzania. Russell Friedman Books: South Africa.

## ANNEX 2. List of wetland sites of international importance in Kenya

<b>(i) International important sites</b>	<b>Location</b>	<b>Status</b>
Lake Nakuru	Southern Rift Valley	Ramsar Site, Protected Area, IBA
Lake Naivasha	Southern Rift Valley	Ramsar Site, IBA
Lake Bogoria	Southern Rift Valley	Ramsar Site, Protected Area, IBA
Lake Baringo	Southern Rift Valley	Ramsar Site, IBA
Lake Elmenteita <sup>1</sup>	Southern Rift Valley	IBA
Lake Magadi	Southern Rift Valley	IBA
Lake Turkana	Northern Rift Valley	Part Protected, IBA
Masinga Reservoir	Central Kenya	IBA, owned by KENGEN
Dandora Ponds	Central Kenya	IBA, owned by Nairobi City Council
Tana River Delta	Kenya Coast	IBA
Kisite Island <sup>2</sup>	Kenya Coast	Marine Protected Area, IBA
Kiunga Marine National Reserve <sup>2</sup>	Kenya Coast	Marine Protected Area, IBA
Mida Creek, Whale Island & Malindi/Watamu Coast	Kenya Coast	IBA
Sabaki River Mouth	Kenya Coast	IBA
Dunga Swamp <sup>3</sup>	Lake Victoria Region	IBA
Koguta Swamp <sup>3</sup>	Lake Victoria Region	IBA
Kusa Swamp <sup>3</sup>	Lake Victoria Region	IBA
Yala Swamp <sup>3</sup>	Lake Victoria Region	IBA
<b>(ii) Other sites not listed but are important staging wetlands for migrants</b>		
Lake Ol Bolossat	Southern Rift Valley	
Lake Jipe	Southern Rift Valley	
Lake Solai	Southern Rift Valley	

<sup>1</sup>Already proposed for Ramsar listing

<sup>2</sup>Host internationally important populations of Roseate Tern *Sterna dougallii*

<sup>3</sup>Among the important staging sites in Kenya's western flyway.

IBA – Important Bird Area



**ANNEX 3. Status of management plans for sites of international importance**

<b>(i) International important sites</b>	<b>Status</b>
Lake Nakuru	Developed and under implementation
Lake Naivasha	Developed and under implementation
Lake Bogoria	Developed and under implementation
Lake Baringo	Developed and under implementation
Lake Elmenteita <sup>1</sup>	Developed and under implementation
Lake Magadi	None
Lake Turkana	None
Masinga Reservoir	None
Dandora Ponds	None
Tana River Delta	None
Kisite Island <sup>2</sup>	Under development
Kiunga Marine national reserve <sup>2</sup>	Under development
Mida Creek, Whale Island & Malindi/Watamu Coast	None
Sabaki River Mouth	None
Dunga Swamp <sup>3</sup>	Under development
Koguta Swamp <sup>3</sup>	Developed
Kusa Swamp <sup>3</sup>	None
Yala Swamp <sup>3</sup>	None
<b>(ii) Other sites not listed but are important staging wetlands for migrants</b>	
Lake Ol Bolossat	Developed and under implementation
Lake Jipe	Under development
Lake Solai	None

**Annex 4. List of major research and monitoring programmes and projects undertaken, 2003-2005**

2. Dissemination of inventory & assessment tools to underpin the wise use of wetlands in eastern Africa. – Done in collaboration between Wildfowl & Wetlands Trust and other organizations in eastern Africa including Wetlands International.
3. Monitoring Important Bird Areas in Kenya and site management planning. Done in collaboration between Nature Kenya (BirdLife International Partner in Kenya), National Museums of Kenya and Kenya Wildlife Service
4. Annual waterbird counts involving teams of volunteers continued at key sites uninterrupted over the period
5. The Department of Ornithology, National Museums of Kenya with the University of Leicester, Wildfowl & Wetlands Trust (UK) Earthwatch and Baringo County Council continued the flamingo satellite tracking in the southern Rift Valley.
6. Assessment of the effects of human disturbance on the ecology of waders with special focus on Kittlitz's Plover *Charadrius pecuarius* at Lakes Nakuru and Elmenteita was initiated
7. Specific monitoring programme focusing on White Stork has been undertaken in Kenya, and the information generated provided baseline data useful for the conservation of this species whose population is apparently declining within its range.

**Annex 5: Relevant publications on waterbirds research and monitoring produced in Kenya, 2002 – 2005.**

- Borghesio, L. 2004. Variations in waterbird populations of two freshwater lakes in Marsabit National Park, northern Kenya. *Scopus* 24.
- Borghesio, L. 2004. Variations in waterbird populations of two freshwater lakes in Marsabit National Park, northern Kenya. *Scopus* 24.
- Dowsett, R.J. 2004. Comments on the distribution of Cape Teal *Anas capensis*. *Scopus* 24.
- Harper D. M. & Mavuti K.M. (2004) Lake Naivasha, Kenya : ecohydrology to guide the management of a tropical protected area. *Ecohydrology & Hydrobiology* **4**: 287-305
- Harper D., Childress B., Hughes B., Van den Bossche W. Berthold P., Querner U.(2004) Satellite tracking lesser flamingo movements in the Rift Valley, East Africa: Pilot Study Report. *Ostrich* **75**: 57-65
- Harper D.M., Childress R.B., Harper M.M., Boar R.R., Hickley P., Mills S.C., Otieno N., Drane T., Vareschi E., Nasirwa O., Mwatha W.E., Darlington J.P.E.C., Excuté-Gasulla X. (2003) Aquatic biodiversity and saline lakes: Lake Bogoria National Reserve, Kenya. *Hydrobiologia* **500**: 259-276
- Harper, D. 2003. Flamingo conservation and Ramsar site management at Lake Bogoria National Reserve, Kenya. Ramsar Bureau Reports, Gland Switzerland.
- IUCN 2003. Restoration of wetlands that are migratory bird habitats, and that have been damaged by invasive weeds: Case study, Lake Naivasha. IUCN Eastern Africa Regional Office Reports, Nairobi.
- Mwema, M., Owino, A.O. & Ndang'ang'a, K., & 2005. Monitoring waterbirds in Kenya, July 2004 and January 2005. Centre for Biodiversity Research Reports, National Museums of Kenya: *Ornithology*: **58**.
- Nasirwa, O., Muchane, M., Ndang'ang'a, K., Owino, A.O. & Muema, M. 2004. Monitoring waterbirds in Kenya, July 2003 and January 2004. Centre for Biodiversity Research Reports, National Museums of Kenya: *Ornithology*: **55**.
- Owino A.O. 2002. Shoreline distribution patterns of Kittlitz's Plover *Charadrius pecuarius* Temminck at Lake Nakuru, Kenya. *African Journal of Ecology* **40**:393-395.
- Owino, A. O., Bennun, L. A., Nasirwa, O. & Oyugi, J. 2002. Trends in waterbird numbers in southern Rift Valley of Kenya, 1991-2000. *Waterbirds* **25 (2)**: 191-201.
- Owino, A.O. 2003. Monitoring of waterbirds in Kenya: 2001 & 2002. *Kenya Birds* **10**: 27-28.
- Owino, A.O. & Nasirwa, O. 2002. Monitoring of waterbirds in Kenya: 2000 & 2001. *Kenya Birds* **9**: 27-31.
- Owino, A.O. 2004. Monitoring of waterbirds in Kenya 2002 & 2003. *Kenya Birds* **11 (1)**: 36-38.
- Owino, A.O. 2005. Management plan for Koguta Important Bird Area papyrus swamp, western Kenya, National Museums of Kenya and Wetlands Biodiversity Monitoring Scheme for eastern Africa, Nairobi, Kenya.
- Owino, A.O. 2005. Shrinking papyrus swamps in Kenya. *Birds & Birding* **10 (3)**: 23
- Robert Ndeti, R. & Muhandiki V.S. 2005. Mortalities of lesser flamingos in Kenyan Rift Valley saline lakes and the implications for sustainable management of the lakes. *Lakes & Reservoirs* **10**: 51-55.

## **ANNEX 6. Key national institutions involved in the coordination of waterbird issues in Kenya**

### **(i) AEWAs Administrative Authority (Kenya)**

Kenya Wildlife Service  
Ministry of Tourism & Wildlife (Kenya)  
PO Box 40241 – 00100 Nairobi, Kenya  
Tel.: +254-20-600800/602345/604310/605443  
Fax.: +254-20-603792/607759  
Website: <http://www.kws.org>

### **(ii) AEWAs Scientific Authority (Kenya)**

National Museums of Kenya (Department of Ornithology)  
PO Box 40658 – 00100, Nairobi, Kenya  
Tel.: +254 20 3742161  
Fax: +254 20 3741424  
Website: <http://www.museums.or.ke>

### **(iii) Non-Governmental Organizations**

Nature Kenya (the East Africa Natural History Society) – BirdLife International Partner  
PO Box 44486 – 00100, Nairobi Kenya  
Tel.: +254 20 3749957  
Fax: +254 20 3741049  
Website: <http://www.naturekenya.org>