Kenya's Important Bird Areas
Status and Trends

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Supported by

Cover Photo

Denham's Bustard, *Neotis denhami*, is a regionally endangered bird in Kenya. Like other bustards, it is a large bird of open country. Denham's Bustards occur mainly in the grasslands of the Masai Mara Important Bird Area, and in highland grasslands northwest of Maralal and on the Laikipia Plateau. They feed on both plants and animals on the ground, such as insects, lizards, flowers and seeds. Denham's Bustards have become scarce in Kenya, mainly because of human activities such as the shift from traditional pastoralism to modern intensive agriculture. Photo courtesy Ornithology Department, National Museums of Kenya.

Back Cover:
A member of Kijabe Environment Volunteers (KENVO) assessing canopy cover in the highland forest. Photo courtesy of KENVO.

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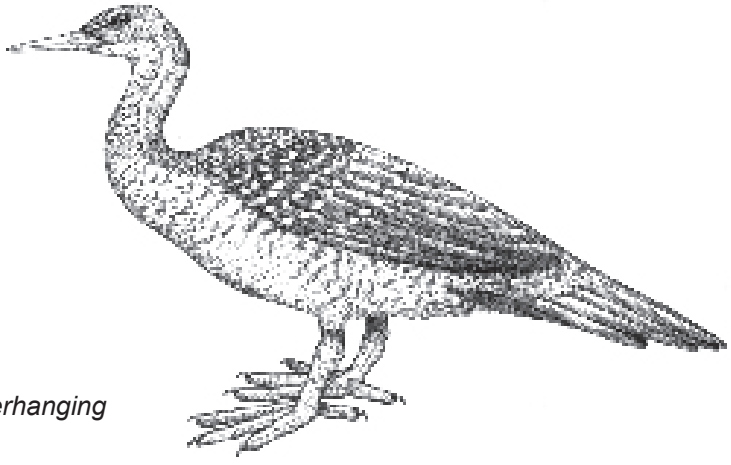

African Finfoot, found along rivers with overhanging plants.

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Oriole Finch, a bird dependent on closed-canopy forests

Executive Summary

Sixty Important Bird Areas (IBAs) have been identified in Kenya. These sites are important for bird conservation, but by their very nature, also protect other living things – the biodiversity on which human survival depends.

Many IBAs are already protected areas: for example, Arabuko-Sokoke Forest Reserve, which shelters six globally threatened bird species; or Lake Nakuru National Park with its vast numbers of flamingos and other waterbirds. Other Important Bird Areas, such as the densely populated valleys where the Kenya endemic Hinde's Babbler lives, are still unprotected. More information on IBAs can be found in the book *Important Bird Areas in Kenya* by Leon Bennun and Peter Njoroge, available at Nature Kenya and major bookshops.

Additional research and analyses has shown that Important Bird Areas are also Key Biodiversity Areas (KBAs). That is, they are important for the conservation of other living things. For example, in the Eastern Arc and Coastal Forests of Kenya and Tanzania, 23 out of the 25 most important sites are IBAs (out of the 160 sites critical for conserving 333 globally threatened species,) .More information is available on the Critical Ecosystems Partnership Fund website (www.cepf.net) under "ecosystem profile".

In the past three years, a system of monitoring Important Bird Areas has been developed by Nature Kenya and implemented by Government agencies and local communities, thanks to funding by the Darwin Initiative of the UK, the Royal Society for the Protection of Birds, and BirdLife International. Monitoring is a vital part of taking action for the conservation of IBAs; it provides an early warning of emerging problems and helps to assess the effectiveness of conservation measures.

The Kenya monitoring framework looks at the habitat, existing management practices, birds and other taxonomic groups to evaluate the conditions of the site. The information is collected by local communities, Government officers, Nature Kenya members and other visitors. It is then fed into the IBA computer database at the Ornithology Department of the National Museums of Kenya by Nature Kenya Research Fellows based at the Department.

Each year, the information is analysed and published in a report like this one. It can then be used by managers to better manage protected sites, and by local communities to guide their efforts on the ground. This report can also be used to report on Kenya's obligations under international agreements, such as the Convention on Biological Diversity; and provides a basis for evaluating the implementation of Kenya's National Biodiversity Strategy and Action Plans and for assessing progress towards the international target of significantly reducing biodiversity loss by 2010 and achievement of Millennium Development Goals (MDGs).

continued next page

Moist grasslands in Busia District are home to the globally endangered Blue Swallow. The IBA is mostly on private land, and has no formal protection of any kind.

Summary of threats recorded from monitoring forms in 2005:

• Overgrazing and illegal grazing is a serious problem in 57 % (34 out of 60) of IBAs

• Illegal selective logging and vegetation destruction is a serious threat to 55% (33/60) of all IBA sites. Logging and cutting are a threat to 73% (16 out of 22) of all forest IBAs.

• Agricultural encroachment and illegal cultivation are a threat to 55 % (33/60) of IBAs.

• Human settlement and urbanisation is a threat for 47% (28/60) of all IBA sites.

• Firewood collection is a threat for 43% (26 / 60) of all IBAs.

• Fire incidences, mainly from honey harvesters or prospectors, charcoal makers or herders were recorded in 43% (26/60) IBA.

• Destructive tourism activities threaten 35% (21/60) of IBAs.

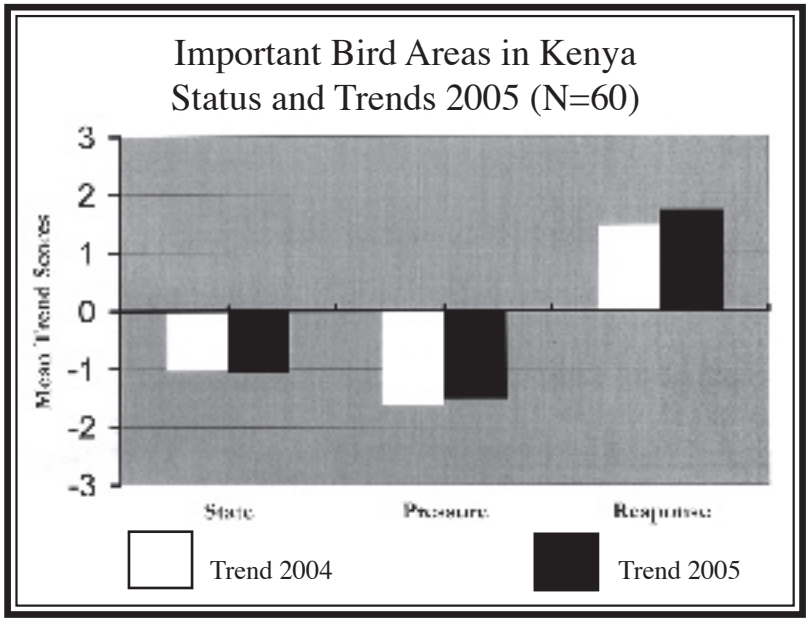
• Charcoal production threatens 28% (17/60) of IBAs.

• Illegal hunting, poaching and trapping is a problem in 27% (16/60) of IBAs.

• Invasive and exotic species, especially plants, threaten 27% (16/60) of IBAs.

• Illegal fishing methods and over fishing are affecting 27% (16/60) of all the IBAs, and 44% (8/18) of wetland IBAs.

• Pollution is a threat to 25% (15/60) of IBAs, and 50% (9/18) of wetland IBAs.



The state of IBAs in 2004 and 2005 is similar. Pressure has reduced slightly, and conservation interventions increased a little.

Finding Alternatives for Firewood Collection and Charcoal Production by Communities.

This problem can be addressed by developing environmentally safe alternative sources of energy for Kenyans. These include encouraging local communities to have woodlots of fast growing trees at home for the supply of firewood and building purposes. The cost of acquiring equipment for tapping solar energy by rural communities could be subsidised by the government and other funding organisations. More energy saving cooking jikos should be developed and made available to the local people who currently depend on extraction of trees for their daily household uses.

Proper Management and Disposal of Sewage and Industrial Effluents:

Many major towns lack a proper mechanism for the treatment and disposal of solid wastes, sewage and industrial wastes. Proper collection procedures of solid wastes, and treatment of sewage and industrial effluents, are needed to avert danger to people and biodiversity through environment pollution.

Instituting a Comprehensive National Programme to Conserve the Five Water Towers of Kenya:

Kenya has five highland forest ecosystems that have been described as the 'Five water towers'. These are Mt. Kenya, Cherangani Hills, Mt. Elgon, Mau Forest Complex and Aberdares ranges. Short and long-term interventions should be developed and implemented with all stakeholders, which will ensure the survival of the forest habitats of these IBAs because they provide very important environmental services to the nation. Management plans for the sites should be developed and implemented with all stakeholders and communities.

Improvement of Security and Infrastructure for Tourism Promotion and Development:

To attract large numbers of visitors for the benefit of our economy and particularly for the many communities that live around the IBAs, there is need to improve

Recommendations

local security and the quality and network of roads, to diversify tourist activities and build more eco-tourism facilities. The bird and plant attractions of Kenya need to be marketed abroad. Local tourists could be attracted with a variety of activities such as hiking and bird-watching. However, tourism infrastructure and activities in IBAs should be well regulated to reduce negative impact on biodiversity.

Improvement in Environmental Awareness and Education at all Levels:

More environmental awareness is required that should cut across all levels of government and private leadership and institutions. Nature education should focus on the effects of nature destruction on economic growth, household, community and national stability.

Strengthening the Capacity of Foresters, Forest Guards and Game Rangers For Protected Areas Patrols and Monitoring:

Rangers and forest guards require constant training and modern equipment such as surveillance equipment, firearms and 4WD vehicles so as to effectively deal with well-armed and skilled poachers. The forest guards and game rangers also require regular training on habitat and species monitoring techniques.

Funding For Biological Research Inside and Outside Protected Areas:

Most biological research has been restricted to IBAs and protected areas. Little if any biodiversity research is being conducted outside protected areas, even though such areas act as refuges and dispersal areas for species, especially during the dry season. To accumulate the much-needed biological information, more research funding is required.

Passing of Effective Natural Resources Conservation and Exploitation legislation:

Proper conservation of our IBAs and every aspect of biodiversity require effective laws and policies that do not conflict with one another. This can be done by enacting comprehensive environmental laws, which can also be amended in order to address any arising challenges.. Conservation of forest sites has recently benefited from the passing of the Forests Act 2005. A Wetlands policy should be developed, while a review of the Wildlife Act (Cap 376 etc.) should be carried out. A law should be enacted and

The Blue Swallow is a globally threatened species found in Ruma National Park and Busia Grasslands IBAs.

enforced to regulate the production and disposal of thin plastic bags.

Identification and Restoration of Corridors:

Migration routes and dispersal corridors for biodiversity have been blocked by human activities, leaving IBAs and Protected Areas at risk from the vagaries of the weather and human pressure. There is need for renewed awareness of this issue, and renewed action to avoid leaving IBAs and Protected Areas as isolated islands of habitat.

Increased Conservation Action by and for Local Communities:

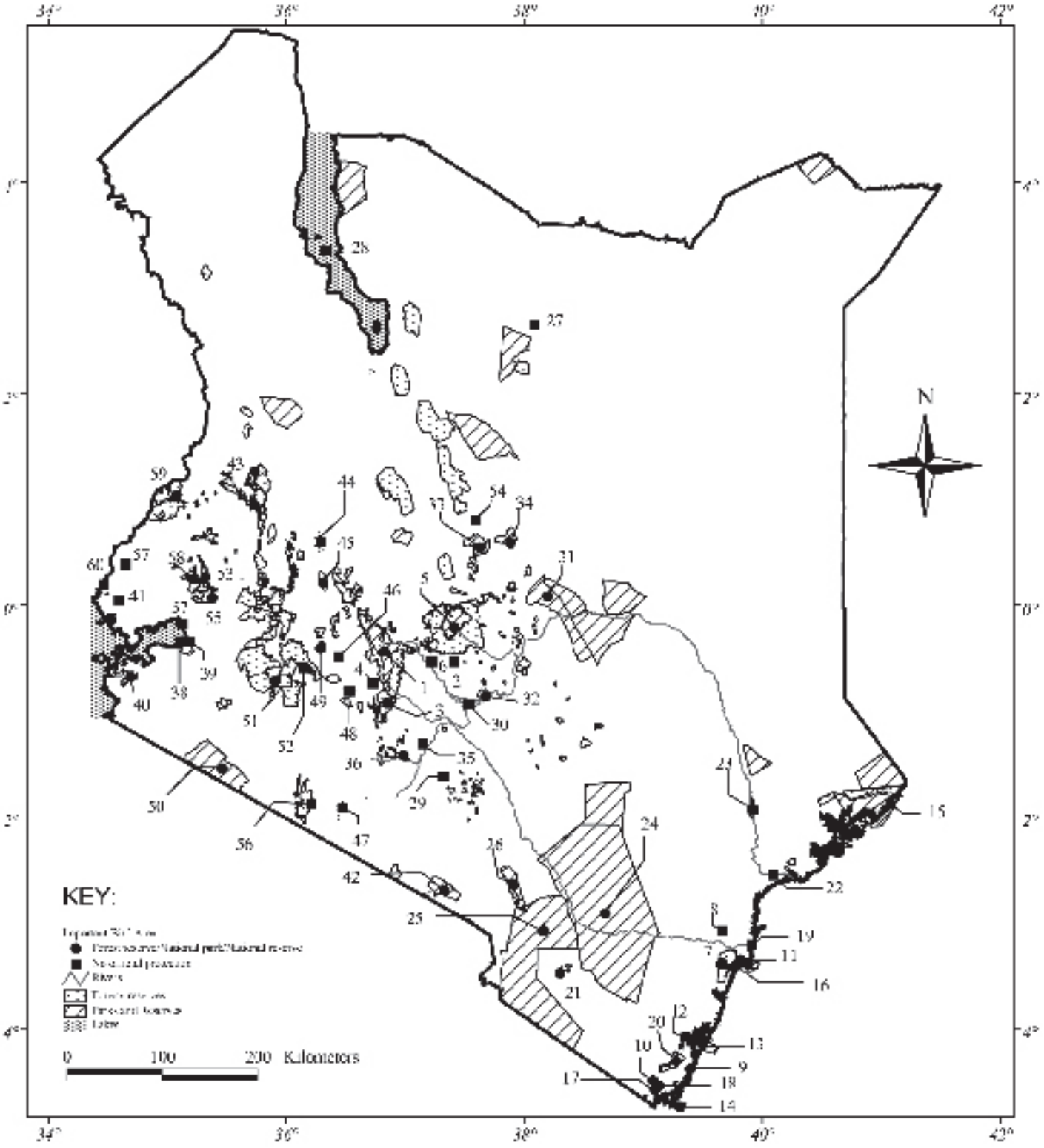
Local communities are poor, their capacity to engage and negotiate viable conservation measures and benefits is low. Communities urgently need increased financial support and knowledge to engage in sustainable long-term biodiversity conservation measures. The challenges facing Kenya's biodiversity exceed current available funding. There is urgent need for increased funding from the Kenya government, from development partners and from the corporate sector if threats and state are to be moved from the negative to the positive scale.

Maintaining the Integrity of Protected Areas:

Parks, forests and other protected areas are crucial in the conservation of our national heritage. In 2005, the government de-gazetted Amboseli National Park, handing over management to a county council. The government should reconsider this decision and reinstate the national park legal status for Amboseli, and initiate the future involvement of local communities in protected

IBA Code	Name of Site	State
KE001	Aberdare Mountains	Improvement
KE002	Kianyaga Valleys	Major Decline
KE003	Kikuyu Escarpment	Decline
KE004	Kinangop Grasslands	Large Decline
KE005	Mt. Kenya (Nat'l Park & Nat'l Reserve)	Slight decline
KE006	Mukurwe-ini Valleys	Major Decline
KE007	Arabuko-Sokoke Forest	Decline
KE008	Dakatcha Woodland	Major Decline
KE009	Diani Forest	Decline
KE010	Dzombo Hill Forest	Not ascertained
KE011	Gede Ruins National Monument	Stable
KE012	Kaya Gandini	Stable
KE013	Kaya Waa	Limited threat
KE014	Kisite Island	Decline
KE015	Kiunga Marine National Reserve	Improvement
KE016	Mida Creek, Whale Island, Watamu	Slight improvement
KE017	Marenje Forest	Decline
KE018	Mrima Hill Forest	Major improvement
KE019	Sabaki River Mouth	Slight Decline
KE020	Shimba Hills	Decline
KE021	Taita Hills Forest	Major decline
KE022	Tana River Delta	Decline
KE023	Tana River Forests	Stable (little change)
KE024	Tsavo East National Park	Decline
KE025	Tsavo West National Park	Decline
KE026	Chyulu Hills National Park	Improved
KE027	Dida Galgalu Desert	Not ascertained
KE028	Lake Turkana	Decline
KE029	Machakos Valleys	Major Decline
KE030	Masinga Reservoir	Minor improvement
KE031	Meru National Park	Major improvement
KE032	Mwea National Reserve	Decline
KE033	Samburu & Buffalo Springs Nat'l Res.	Stable
KE034	Shaba National Reserve	Decline
KE035	Dandora Ponds	Stable
KE036	Nairobi National Park	Decline
KE037	Dunga Swamp	Decline
KE038	Koguta Swamp	Decline
KE039	Kusa Swamp	Decline
KE040	Ruma National Park	Slight improvement
KE041	Yala Swamp	Decline
KE042	Amboseli National Park	Major Decline
KE043	Cherangani Hills	Decline
KE044	Lake Baringo	Decline
KE045	Lake Bogoria National Reserve	Little change
KE046	Lake Elmenteita	Little change
KE047	Lake Magadi	Decline
KE048	Lake Naivasha	Slight Improvement
KE049	Lake Nakuru National Park	Slight Improvement
KE050	Maasai Mara National Reserve	Decline
KE051	Mau Forest Complex	Major decline
KE052	Mau Narok/Molo Grasslands	Major decline
KE053	North Nandi Forest	Decline
KE054	Ol Donyo Sabache	Minor Decline
KE055	South Nandi Forest	Decline

Summary Status of Kenya's IBAs in 2005



KE056	South Nguruman	Stable
KE057	Busia Grasslands	Major Decline
KE058	Kakamega Forest	Major improvement
KE059	Mt. Elgon	Decline
KE060	Sio Port Swamp	Decline

Potential IBAs

P001	Boni and Dondori Forests	Not ascertained
P002	Kongelai Escarpment	Not ascertained
P003	Malkamari Nat'l Park	Not ascertained
P004	Mt Kasigau Forest	Not ascertained
P005	Mt Kulal Forest	Major decline

IBA Status and Trends, 2005

Important Bird Areas

Important Bird Areas (IBAs) are sites of global importance for the conservation of birds and other biodiversity at global, regional and national level. IBAs are identified using internationally agreed, objective, quantitative and scientifically defensible criteria. Sites qualify as IBAs if they hold:

1) globally threatened bird species,

2) birds with restricted distribution,

3) birds characteristic of a particular biome,or

4) large numbers or congregations of bird species.

Additional research and analyses has shown that Important Bird Areas are also Key Biodiversity Areas (KBAs). That is, they are important for the conservation of other living things. Outstanding examples include the Eastern Arc and Coastal Forests of Kenya and Tanzania, where, out of the 160 sites critical for conserving 333 globally threatened species, 23 out of the 25 most important sites are IBAs. More information is available on the Critical Ecosystems Partnership Fund website (www.cepf.net) under "ecosystem profile".

The Important Bird Areas programme for Kenya, co-ordinated by Nature Kenya in collaboration with the Ornithology Department of the National Museums of Kenya, published *Important Bird Areas in Kenya,*

by Leon Bennun and Peter Njoroge, in 1999. The directory lists a total of 60 IBAs, and five potential sites, as priorities for biodiversity action in Kenya.

These IBAs represent 10% of the country's land area, covering almost all major ecosystems and taking into account the full network of Kenya's protected areas. The IBA process adds value to the protected areas network by bringing on board new sites within private land as sites that are of critical importance for biodiversity conservation.

Important Bird Areas in Kenya is available from Nature Kenya and major bookshops.

Important Bird Areas cover all the key habitats types for Kenya: 22 forests (20 of them protected areas); 18 wetlands (only 5 protected); 12 semi-arid and arid areas (7 are protected); 6 moist grasslands (3 are protected); and 2 unprotected sites whose habitats cut across the broad cross-sections of habitat categories.

Of the 60 sites, 46 IBAs shelter globally threatened bird species, 29 are home to range-restricted birds, 32 contain biome-restricted bird species, and 13 IBAs hold congregations of birds.

There is more to the IBA process than compilation of information that led to identification of these

Hinde's Babbler is found along river valleys in parts of central and eastern Kenya – and nowhere else in the world.

sites. Immense threats continue to jeopardise the existence of Important Bird Areas. To ensure IBA site conservation in perpetuity, Nature Kenya, the National Museums of Kenya and other key stakeholders and partners have initiated a suite of actions:

1. Developed and implemented a biodiversity monitoring framework to understand changes and provide feedback to conservation and policy mechanisms

2. Mobilised government and non-government agencies and local communities to implement the national monitoring framework: collecting, storing, analysing and disseminating data and information to key stakeholders and decision makers

3. Developed and implemented a series of site-based conservation interventions and programmes by and for local communities for sustained action

4. Developed and implemented actions that integrate and mainstream monitoring and general site action into wider national environmental policy and legislation

5. Surveyed poorly known sites to promote better understanding and add new IBAs

The focus here is on the conservation status of

IBAs, based on routine monitoring coordinated by Nature Kenya (the BirdLife International partner in Kenya) and the National Museums of Kenya. The monitoring framework was developed by the Important Bird Areas National Liaison Committee (IBA-NLC) composed of some 24 government and non-government institutions.

Government representation includes: Forest Department (FD), Kenya Tourism Board (KTB), Kenya Wildlife Service (KWS), Ministry of Education, Ministry of Lands and Settlement, National Museums of Kenya (NMK), National Environment Management Authority (NEMA) and Universities.

NGOs present in the NLC include: African Conservation Centre (ACC), African Wildlife Foundation (AWF), East African Wild Life Society (EAWLS), Ecotourism Society of Kenya (ESOK), Environmental Liaison Centre International (ELCI), Kenya Forests Working Group (KFWG), Wildlife Clubs of Kenya (WCK), World Conservation Union (IUCN) and World Wide Fund for Nature (WWF). The private sector is represented by Acacia Consultants, and the donor community includes the Community Development Trust Fund's Biodiversity Conservation Programme (CDTF-BCP) and the UNDP Small Grants.

The United Nations Development Programme and the Global Environment Facility funded the establishment of the NLC through the project "African NGO-Government Partnerships for Sustainable Biodiversity Action". Together, these institutions and agencies contribute to the success of the mutually agreed monitoring framework whose collaborative implementation has made it possible for collection and collation of field data used to analyse trends in state, pressure and response.

Initial funding for installation and sustenance of monitoring activity was through funding from the GEF through UNDP from 1999 to 2001; from 2002 to 2007, through the Darwin Initiative for Survival of Species of the United Kingdom Government and the Royal Society for Protection of Birds (RSPB).

The full commitment of countless numbers of volunteers and members of community based organisations, here referred to as 'Site Support Groups' (SSGs), has been essential. The Department of Ornithology of the National Museums of Kenya is providing technical assistance in the monitoring process. The Kenya Wildlife Service and the Forest Department have played a crucial role in coordinating dissemination, filling and collation of monitoring forms from field managers and officers.

Monitoring Framework for Kenya's IBAs

Monitoring involves the repeated collection of information over time in order to detect changes in particular variables. Monitoring is a vital part of any serious conservation programme because it helps in assessing the effectiveness of conservation measures and provides an early warning of emerging problems. A good monitoring scheme generally seeks to answer four questions: 1) Why monitor? 2) What should we monitor? 3) How should we monitor? 4) What happens after monitoring?

The process of monitoring involves designing a robust, appropriate and cost effective scheme. It should lead to accurate data collection, storage, analysis and application. This includes feeding into management planning, policy evaluation, advocacy, fundraising and conservation action.

The monitoring framework for Important Bird Areas currently functioning in Kenya implements article (7) of the Convention on Biological Diversity on identification and monitoring. Knowledge and capacity at site level vary from site to site, yet data is required from all of the IBAs. In such a scenario, the monitoring scheme in Kenya uses a two-tier approach that is based on the 'pressure-state-response model':

1. The first tier is the basic monitoring taking place in all the sixty IBAs. A data collection form for basic monitoring has been designed and approved by the participating institutions. As a minimum, only one form is needed per site per year; however, more than one form can be filled per site. Nature Kenya is working with the Forest Department (FD) and Kenya Wildlife Service (KWS) to institutionalise the process within the two agencies.

2. The second tier is the detailed monitoring taking place in a subset of the 60 sites, particularly those with well established and functioning SSGs, whose members have knowledge on identification of targeted biological species. Currently, detailed monitoring is taking place in five sites in Kenya, with data being collected by members of site support groups and in some cases government agencies.

This Report is an attempt to summarise the current status and trends of Kenya's 60 Important

The rhinoceros beetle also needs protection, like the rhinoceros.

Important Bird Areas Status and Trends Report, 2005

Bird Areas. The report adopts theÜ'pressure-state-response model'. It uses not only birds as a key to site assessment, but also species of other taxonomic groups, as well as vegetation and existing management practices, to evaluate the overall state of the site.

The main sources of information used to compile this report are basic monitoring forms retrieved from 53% (32 sites) of the 60 IBA sites in 2005. Employees of the Forest Department (FD) and Kenya Wildlife Service (KWS) have filled most of these forms, while members of Site Support Groups (SSGs), researchers from the National Museums of Kenya (NMK), other field researchers, birdwatchers and other visitors have played a key role.

Additional information has been collected from the five IBA sites where detailed monitoring is being undertaken—Kinangop Grasslands, Mukurwe-ini Valleys, Kikuyu Escarpment Forests, Dunga Swamp and Kakamega Forest.

The report sets a baseline for assessing the impact of future conservation measures and investment. Together with the book Important Bird Areas in Kenya and the individual site reports, it will help Kenya prepare national reports to the Convention on Biological Diversity and other conventions; provide a basis for evaluating the implementation status of Kenya's National Biodiversity Strategy and Action Plans; and serve as a basis for assessing progress towards the international target of significantly reducing biodiversity loss by 2010 and achievement of Millennium Development Goals (MDGs).

Donors interested in investing in the conservation of Kenya's Important Bird Areas should also find this report a useful funding guide.

The IBA conservation and management objective is the perpetual conservation of species, sites and habitats. Monitoring frameworks and systems should

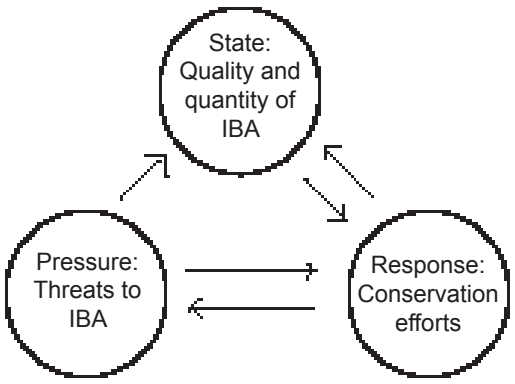
The "Pressure-State-Response" Model

provide information on the status of species, sites and habitats, the pressures exerted upon them and the response to these threats. Because variables are many and resources to collect data on every variable are limited, a variety of general environmental and habitat indicators have been chosen as quick and rapid measures for the pressure, state and response model, as requested by the Convention on Biological Diversity (CBD) and used by the BirdLife International Partnership in Europe.

Pressure: Indicators that identify and track major threats to the IBA, such as increased human population, increased papyrus harvesting, over-fishing, logging, etc.

State: Indicators that refer to changes in site condition and biodiversity value. Some site conditions may include water level and water transparency, among others, while biodiversity value indicators may include threatened bird species populations and species richness.

Response: Variables that identify and track conservation actions, such as changes in legal status of a site (e.g., through gazettement), establishment of site support groups and funding of conservation programmes, among others.



IBA Status and Trends 2004-2005

State

Protected IBAs:

The 60 Important Bird Areas in Kenya include 35 Protected Areas. The Kenya Wildlife Service (KWS) manages the parks and reserves, and the Forest Department (FD) manages forest sites. Frequent patrols and surveillance have led to substantial reduction in the number of illegal activities such as wildlife poaching and human related habitat degradation activities. This may have improved the quality of various habitats in the IBAs and consequently led to increase in the population of animal species.

Unfortunately, some IBAs such as Lake Nakuru National Park, Shimba Hills National Park, and Aberdares National Park have large populations of big herbivores that are beyond the habitat carrying capacity. The large congregations of big herbivores, associated with intensive foraging activity, continue to degrade the habitats of smaller animal species. The situation is further acerbated by blockage of traditional wildlife dispersal corridors by infrastructures, human settlements and farmlands and installation of electric fences around these IBAs, which restrain the flagship species (Elephants, Buffalos, Zebras, Wildebeests, Giraffes, Rhinos, etc) from migrating out. The resulting overgrazing and overbrowsing might in the long run adversely affect the quality of the habitat and impact negatively on biodiversity, if appropriate corrective measures are not instituted. Corrective measures such as the translocation of 400 elephants from Shimba Hills to Tsavo East National Park will ease pressure on the habitat of the former site.

Unprotected IBAs:

There are 25 unprotected sites among Kenya's 60 Important Bird Areas. These sites, such as Busia Grasslands, Kinangop Grasslands, Mau Narok/Molo Grasslands, Lake Victoria papyrus swamps (Dunga, Koguta, Sio Port) and small river valleys (Mukurwe-ini, Machakos, Kianyaga), among others, are severely threatened by human activities that are destructive to habitats. Charcoal production, firewood collection, livestock overgrazing, water extraction, small-scale irrigation and discharge of sewage and industrial effluents are serious, uncontrolled threats, while subsistence hunting and fishing have affected the populations of animal species. Since these IBAs are under private ownership, communal ranching schemes or are unclaimed pieces of land, the rate of conversion to land uses that are incompatible with biodiversity conservation has been increasing.

For instance, in the Kinangop Grasslands IBA, plots of pristine highland grassland owned by local farmers and u

Sharpe's Longclaw, globally threatened, found only in Kenya, and mainly on the unprotected Kinangop Grasslands.

for detailed monitoring of the globally vulnerable bird species, Sharpe's Longclaw, *Macronyx sharpei,* in 1999. Since then, these plots of natural tussock grassland have faced an increasing conversion from animal husbandry to wheat farming, which completely destroys grass and tussocks combinations preferred by this bird. In 2005, a few of the 40 plots initially marked as good for monitoring the species have faced 100% conversion, and many others experienced more than 30% alteration, while the rest cannot be described as safe. Therefore, uncontrolled habitat alteration and destruction by local people in unprotected IBAs has severely threatened the survival of birds and populations of other taxonomic groups.

A few unprotected IBAs have nevertheless been spared. For example, Ol Donyo Sabache has faced minimal destruction, since it occurs within Namunyak conservancy, a community wildlife managed ranch.

Forest IBAs:

Kenya's 60 IBAs include 22 forest areas. The

conservation status of most forested IBAs in 2005 has improved, and they can be described to be on a healing course. This has resulted from the enforcement of the ban on logging and Non Residential Cultivation (NRC) or '*shamba*' system, eviction of squatters in government forests and a complete halt to forest excisions. This has been followed by national and local tree planting campaigns through the ministry of environment and natural resources, and active involvement of community-based organisations (CBOs) and Site Support Groups (SSGs) around forested IBAs in development of indigenous tree seedlings, which are planted in formerly degraded patches of the IBA. The Forest Department officials have expanded their tree nurseries at the forest sites and are working with surrounding community members in order to reforest the affected IBAs. In particular, forest regeneration activities are being targeted at the five main "water towers" in Kenya: Mt. Kenya, Aberdares, Mau Forest Complex, Mt. Elgon and the Cherengani Hills.

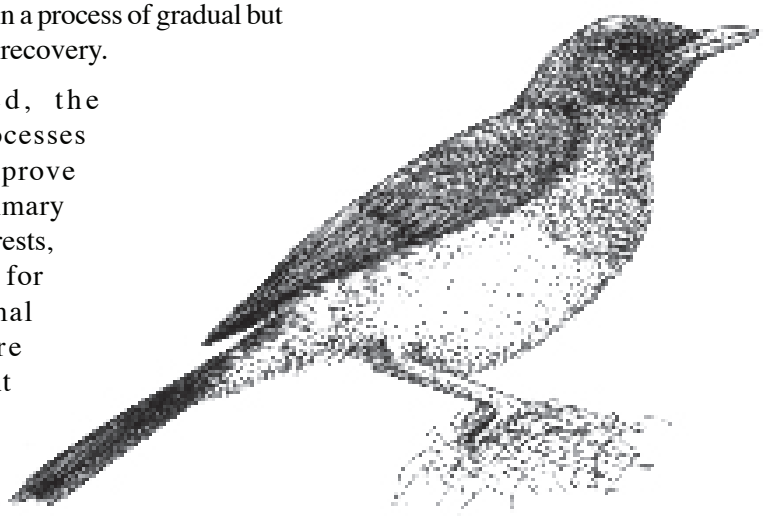
Most of the highland forests (Kikuyu Escarpment Forest, Mau Forest Complex, Aberdares) and the Guineo-Congolian rainforest (Kakamega Forest) in western Kenya are in a process of gradual but substantial habitat recovery.

If sustained, the regeneration processes are bound to improve the quality of primary sections of the forests, the main habitat for specialised animal species that are sensitive to slight habitat alteration. This might eventually lead to an increase in the population of globally threatened birds and populations of other taxonomic groups. Additionally, the improvement in the quality of the general habitat might reduce the survival risks of birds and other species.

The Coastal Forests and Eastern Arc Mountains, however, continued to be severely threatened in 2005, even though Conservation International (CI) and other partners have identified 160 Critical Ecosystems Biodiversity Hotspots in Kenya and Tanzania (51 in Kenya), that collectively harbour at least 333 globally threatened species.

This is because most of the forested IBAs in this region exist as small forest patches (e.g., Kaya Waa IBA, 20 ha, Diani Forest IBA, 80 ha, etc.), which occur in the midst of a high and rapidly increasing human population. This has led to increased dependence on forest resources for provision of carving wood, building poles, firewood and charcoal. It has also led to encroachment for human settlement and agricultural activities by the surrounding communities. Furthermore, high levels of poverty among the local community and lack of mitigation measures such as tree planting activities that can contribute to forest regeneration have worsened the situation. Therefore, the substantial decline in the habitat quality of the coastal forest IBAs might eventually affect the populations of common and threatened birds, coastal biome bird species and populations of other taxonomic groups if concerted efforts are not made to regenerate the degraded habitats with indigenous tree species.

Additionally, following the ban on logging, commercial loggers have shifted to riverine forest patches and forests of coastal north-eastern Kenya that are not well patrolled.



The Taita Thrush lives only in indigenous forest fragments on the tops of the Taita Hills. It does not survive in the pine plantations on the lower slopes.

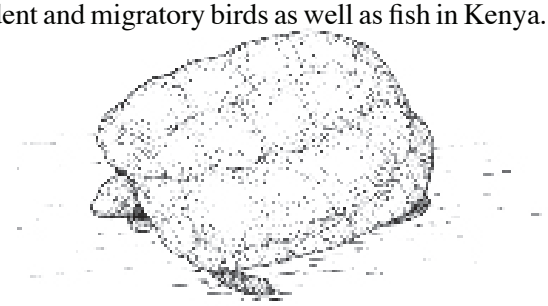
Woodland and Drylands IBAs:

There are 12 bushland or semi-arid and arid IBAs, out 60 IBAs in Kenya. Most of these IBAs occur in areas of low and unpredictable rainfall, such as parts of eastern, southern and most of northern Kenya. The ban on logging in forests has shifted pressure to dryland woodlands, especially the unprotected sites. Large-scale charcoal production, mainly for sale in major towns and cities to provide for the livelihood of local communities adjacent to IBAs, has contributed to heavy losses of hardwood in these IBAs. Some of the affected IBAs include the habitat around Lake Baringo, Lake Elmenteita and Lake Magadi. Intense charcoal making is destroying habitat outside IBAs such as Tsavo East National Park, Tsavo West National Park and Shaba National Reserve. The resulting habitat losses and degradation

continue to expose biodiversity to greater risks of local extinction in these IBAs.

Wetland IBAs:

Eighteen out of Kenya's 60 IBAs are wetlands. The wetland IBAs are important sites for conservation of resident and migratory birds as well as fish in Kenya.



Pancake tortoise, a dryland reptile threatenedby over-collection, land clearance and other human activities.

The conservation status of many of these ecosystems has continued to decline in 2005.

Marine wetlands IBAs such as Kisite Island, Kiunga Marine, Mida Creek and Whale Island, Sabaki River Mouth, etc., are vital breeding and feeding grounds for large congregations of seabird species. These IBAs are threatened by large numbers of tourists that disturb the roosting and nesting birds; local people have been involved in egg collection and harvesting the mangroves that act as buffers to sediments and pollutants from inland. The extension of the urbanization process to the seashores has destroyed the habitat for shorebirds species, while accidental oil spills have killed a lot of aquatic life. Additionally, salt harvesting companies have destroyed mangroves forests.

Inland wetlands such as Lake Naivasha, Lake Nakuru, Lake Bogoria, Lake Baringo, Lake Magadi, among others, are faced with an increase in sediment loads from the inlets, leading to siltation and reduction in the depth and surface area of the wetlands. The destruction of vegetation in the catchments and along the river channels as well as the diversion of rivers for irrigation purposes have reduced the amount of water into wetland IBAs. Wetlands near towns, such as lakes Naivasha and Nakuru, are being polluted by sewage, industrial effluents and agricultural chemicals. The quality of the wetland IBAs around Lake Victoria continue to be severely affected by pollution from the nearby Kisumu City and other highly populated towns around the shores of the lake, invasion by alien species like the Water Hyacinth, and agricultural pollutants from many rivers with large catchment areas whose native vegetation has been destroyed. There is also widespread and unsustainable exploitation of papyrus vegetation, which acts as a buffer against siltation and provides nutrient filtration.

Moist Grassland IBAs:

The moist grassland IBAs such as Kinangop Grasslands, Mau Narok/Molo Grasslands and Busia Grasslands have no formal protection and occur in land under private ownership. As in all unprotected IBAs, the habitat of these sites is being fragmented by human infrastructure developments and agriculture intensification. The species in these IBAs are highly threatened, and local extinctions of common and globally threatened species are expected in future if the continued habitat degradation is not addressed with pragmatic restoration measures.

General Observations:

In general, all IBAs continue to be carved out as isolated 'islands' since most of the corridors and dispersal routes that linked wildlife ecosystems have been blocked by human activities. The increasing isolation predisposes biological species (especially large and small animals) to inbreeding, which may lead to local extinctions in case of unpredictable catastrophic events.

Additionally, half of Kenya's population lives below the poverty line, on less than a dollar a day. The levels of poverty are especially high in rural areas where most of the IBAs occur. Poverty, coupled with high unemployment, has prompted rural communities to depend on natural resources for provision of firewood for cooking, charcoal production, water provision, building poles, timber and grazing. These human activities are leading to substantial degradation in the quality of habitats, fragmentation and in some instances complete habitat loss inside and outside the IBAs.

With continued perturbations of the habitats in IBAs in 2005, it is clear that the survival of all biodiversity continues to be severely threatened.

IBA Status and Trends 2004-2005

Pressures, Threats

Overgrazing by Domestic Animals and Wildlife:

The confinement of wildlife species in isolated IBA sites without any chances to disperse, especially using electric fences, has increased grazing and browsing pressure on habitats. The threat of overgrazing by domestic livestock is high in IBAs lacking legal protection, and in reserves where local people are allowed grazing rights such as Masai Mara National Reserve, Samburu/Buffalo Springs and Shaba National Reserves, Amboseli National Park and Mwea National Reserve, among others.

High and steadily increasing human population:

Human population around most IBAs is high and in some cases rising rapidly, and continues to put a lot of pressure on forest resources such as illegal selective logging, charcoal making, firewood collection and vegetation destruction. The most affected IBAs include Kakamega Forest, Mt. Kenya, Aberdares and Taita Hills. All coastal sites are facing a lot of pressure.

Fragmentation and Isolation of Ecosystems:

Human activities around all the IBAs continue to isolate sites from each other, and block traditional wildlife corridors that once linked several sites. This has heightened human wildlife conflicts in areas neighbouring IBAs, and caused habitat overgrazing and the confinement of large animals inside sites with electric fences, which might lead to inbreeding. IBAs facing serious threats include Kakamega Forest, Taita Hills, Aberdares, Mt Kenya; and Nairobi National Park that had animal dispersal corridors that linked Masai Mara, Amboseli and Tsavo ecosystems.

Human-Wildlife Conflicts:

Most of the habitat around IBAs has been altered or destroyed to pave way for human development activities. This has made IBA sites remain as 'islands' in the midst of a rapidly changing landscape. Constant dispersal of wildlife species out of the IBAs has resulted into intense conflict with local people. The pressure is intense in Shimba Hills, Tsavo East and West National Parks, Mt. Kenya, Aberdares, Masai Mara and Nakuru National Park.

Siltation and Reduction of Wetland Water Levels:

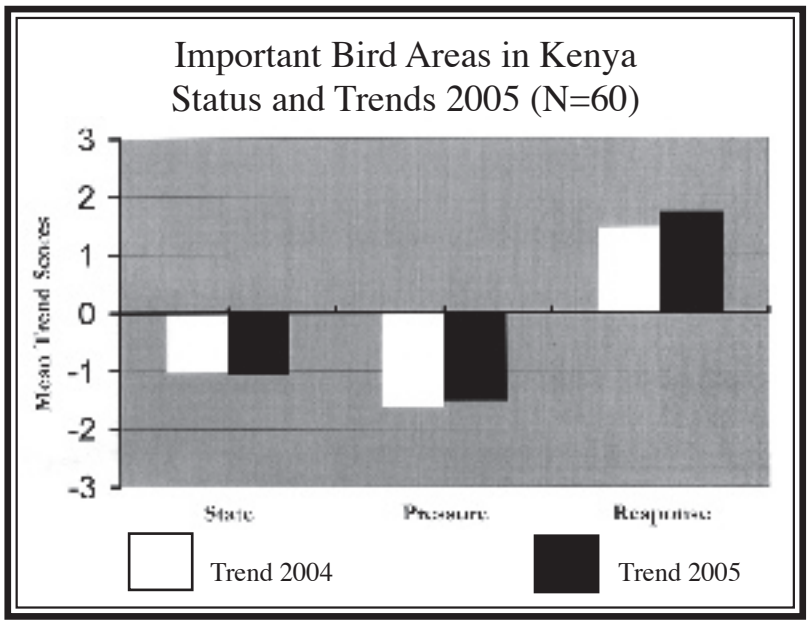
The widespread vegetation destruction in Kenya in the past has resulted in massive soil erosion. Hence, large amounts of sediment loads have been deposited into wetland IBAs, and have reduced the volume of water that can be retained by these sites. The problem is prevalent in Lake Nakuru National Park, Lake Baringo, Masinga Dam, Lake Bogoria, Lake Naivasha, and Yala, Dunga and Kusa Swamps.

Wetland Pollution:

Solid waste and industrial effluent have been deposited into IBAs without proper collection and treatment. This threat is prevalent in IBAs that are close to major towns and cities such as Lake Nakuru National Park and Lake Naivasha.

Firewood Collection and Charcoal Making:

Many communities depend on firewood for cooking and lighting purposes. Many trees are being lost to charcoal production for use in major towns and cities. Rampant removal of trees is causing the destruction of habitat for many species. The problem is key threat in Mau Forest Complex, South and North Nandi Forests, Lake Bogoria, Tsavo East and West National Parks and Chyulu Hills National Park.



Responses, Interventions

Ban on Logging and Non-Residential Cultivation:

The continuing ban by the government on logging and Non-Residential Cultivation (NRC) has reduced the rate of forest destruction and initiated a process of forest regeneration, in highland forests that had previously faced massive destruction. The ban should be maintained to allow the forest estate enough time to regenerate.

Eviction of Squatters in Government Forest Land and Complete Halt to Excisions:

The removal of squatters who were involved in an array of activities incompatible with forest conservation has reduced a lot of the pressure exerted on forest resources in the past. The halt in excisions has also halted quite drastically the rate of forest cover loss that had jeopardised the survival of biodiversity in the past.

Enactment of the Forests Bill:

The Forests Act 2005 that charts out the strategy for sound management of forests in Kenya has been passed by Parliament. Once it becomes operational and adequately implemented, it will bring to an end many of the threats faced by forest sites in the country, and may help to increase the forest cover from the current c. 1.7% of the total land area to the 10% standard requirement set for a country by the United Nations.

Building the Capacity of Local Communities and Government Institutions in Monitoring of IBAs:

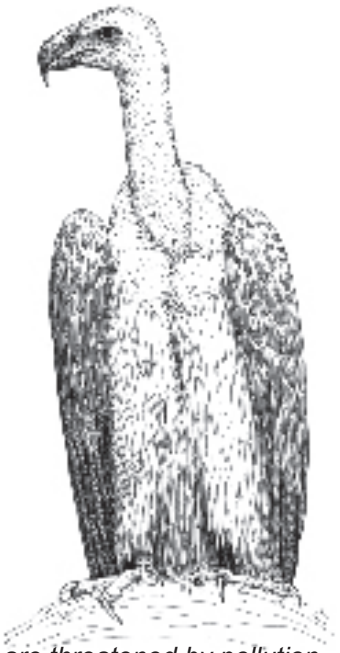
Community members organised in Community-based organisations near IBAs called Site Support Groups (SSGs), and government officials operating in IBAs sites, have been trained by Nature Kenya and the National Museums of Kenya to conduct biodiversity monitoring. The amount of information they are helping to collect which forms the basis of this entire report helps to track the status of species and habitat in IBAs.

Large Research and Conservation Projects Contributing Information for Conservation Interventions and Decision Making:

National Liaison Committee (NLC) institutions are running many short and long term research projects. These provide scientific knowledge for making effective recommendations, and implement some strategic activities that are contributing to conservation.

Initiation of National Tree Planting Campaigns:

There has been widespread publicity through the Ministry of Environment, Forest Department, Greenbelt Movement (GBM), NGOs, CBOs, SSGs and the mass media to green the country. An annual national tree-planting season launched in April 2005 is marked by bringing citizens together to plant many tree seedlings in various parts of the country.



Vultures are threatened by pollution, poisoningand habitat loss.

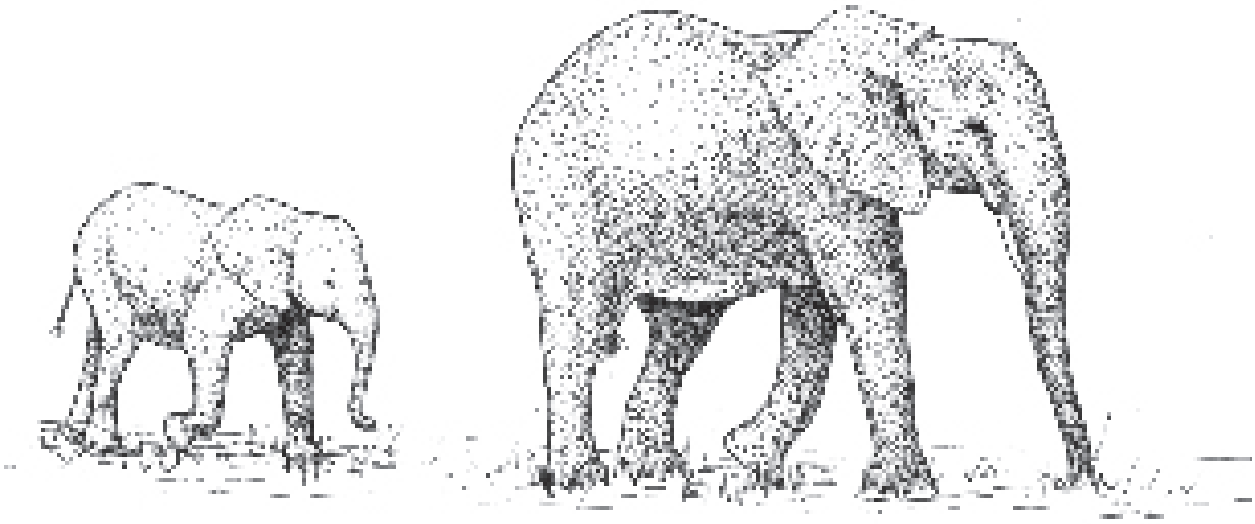
Donor funding and community initiatives:

The donor community has responded positively to help reduce the threats and to improve the state of IBAs. Some to mention here include: the European Union, the USAID, the CEPF, the GEF, the Finnish Government, the UK Government, the Danish Government, the German agencies (KNH and NABU), the Japanese Government, UNDP, UNEP, among others. The Constituency Development Fund has also assisted community tree nurseries.

Partnerships and joint planning:

The Kenya Government has shown increased openness in working with local communities and civil society. Inclusion of civil society into Government-led initiatives, such as Nature Kenya's presence in the GEF Proposals review panel and as a member of Government Project Steering Committees, and strong Government presence in the IBA National Liaison Committee attest to this. There is increased discussion about and appreciation of the problems facing biodiversity and the role of

Conservation Recommendations



Finding Alternatives for Firewood Collection and Charcoal Production by Communities.

This problem can be addressed by developing environmentally safe alternative sources of energy to Kenyans. These include encouraging local communities to have woodlots of fast growing trees at home for the supply of firewood and building purposes. The cost of acquiring equipment for tapping solar energy by rural communities could be subsidised by the government and other funding organisations. More energy saving cooking jikos should be developed and made available to the local people who currently depend on extraction of trees for their daily household uses.

Proper Management and Disposal of Sewage and Industrial Effluents:

Many major towns lack a proper mechanism for the treatment and disposal of solid wastes, sewage and industrial wastes. Proper collection procedures of solid wastes, and treatment of sewage and industrial effluents are needed to avert the loss of biodiversity through environment pollution.

Instituting a Comprehensive National Programme to Conserve the Five Water Towers of Kenya:

Kenya has five highland forest ecosystems that have been described as the 'Five water towers'. These are Mt. Kenya, Cherangani Hills, Mt. Elgon, Mau Forest Complex and Aberdares ranges. Short and long-term interventions should be developed and implemented with all stakeholders, which will ensure the survival of the forest habitats of these IBAs because they provide very important environmental services to the nation. Management plans for the sites should be developed and implemented with all stakeholders and communities.

Improvement of Security and Infrastructure for Tourism Promotion and Development:

To attract large numbers of visitors for the benefit of our economy and particularly for the many communities that live around the IBAs, there is need to improve local security and the quality and network of roads, to diversify tourist activities and build more eco-tourism facilities. The bird and plant attractions of Kenya need to be marketed abroad. Local tourists could be attracted with a variety of activities such as hiking and bird-watching. However, tourism infrastructure and activities in IBAs should be well regulated to reduce negative impact on biodiversity.

Improvement in Environmental Awareness and Education at all Levels:

More environmental awareness is required that should cut across all levels of government and private leadership and institutions. Nature education should focus on the effects of nature destruction

on economic growth, household, community and national stability. Awareness can include publicity in print and electronic media, road shows, concerts, schools outreach programmes, etc.

Strengthening the Capacity of Foresters, Forest Guards and Game Rangers For Protected Areas Patrols and Monitoring:

Rangers and forest guards require constant training and modern equipment such as surveillance equipment, firearms and 4WD vehicles so as to effectively deal with well-armed and skilled poachers. The forest guards and game rangers also require regular training on habitat and species monitoring techniques.

Funding For Biological Research Inside and Outside Protected Areas:

Most biological research has been restricted to IBAs and protected areas. Little if any biodiversity research is being conducted outside protected areas, even though such areas act as refuges and dispersal areas for species, especially during the dry season. To accumulate the much-needed biological information, more research funding is required.

Passing of Effective Natural Resources Conservation and Exploitation legislation:

Proper conservation of our IBAs and every aspect of biodiversity require effective laws and policies that do not conflict with one another. This can be achieved by passing comprehensive environmental laws, which can also be amended adequately in order to address any arising challenges to conservation of Kenya's biological diversity. Conservation of forest sites has recently benefited from the passing of the Forest Act 2005. A Wetlands policy should be developed, while a review of the Wildlife Act (Cap 376) etc. should be done. A law should be enacted and enforced to regulate the production and disposal of thin plastic bags.

Increased Conservation Action by and for Local Communities:

Local communities are poor, their capacity to engage and negotiate viable conservation measures and benefits is low. Communities urgently need increased financial support and knowledge to engage in sustainable long-term biodiversity conservation measures. The challenges facing Kenya's biodiversity exceed current available funding. There is urgent need for increased funding from the Kenya government, from development partners and from the corporate sector if threats and state are to be moved from the negative to the positive scale.

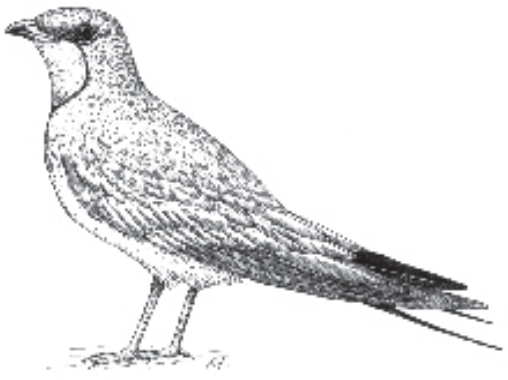
Identification and Restoration of Corridors:

Migration routes and dispersal corridors for biodiversity have been blocked by human activities, leaving IBAs and Protected Areas at risk from the vagaries of the weather and human pressure. For example, animals are hardly able to move from Nairobi National Park to their wet-season dispersal areas far to the south. There is need for renewed awareness of this issue, and renewed action to avoid leaving IBAs and Protected Areas as isolated islands of habitat.

Maintaining the Integrity of Protected Areas:

Parks, forests and other protected areas are crucial in the conservation of our national heritage. In 2005, the government de-gazetted Amboseli National Park, handing over management to a county council. The grazing pressure on the park is expected to increase if the decision, challenged by a group of NGOs, is not rescinded. The government should reconsider this decision and reinstate the national park legal status for Amboseli, and initiate the future involvement of local communities in protected areas management and benefit sharing.

Comprehensive biodiversity and habitat surveys of the little visited, little known and potential IBAs in order to document their conservation status and monitoring needs.



The Collared Pratincole is a bird characteristic of the Amboseli ecosystem.

Conservation Recommendations for Key Agencies Participating in Monitoring (FD, KWS, NEMA)

Forest Department:

• Collaborate with Water Boards to regulate water abstractions from the forest IBAs.

• Continuous re-training of staff to adequately prepare them to implement reforms proposed in the Forests Act 2005.

• Commence developing guidelines and regulations that will enable the implementation of the new forest policy and law.

• Recruitment of more forest guards for deployment in forests sites, in order to increase surveillance and control illegal activities.

• Continuous re-training of the forest guards to equip them with the necessary skills to counter any arising forest crimes, and also to work with communities.

• Equip forest guards with surveillance equipment such as weapons, 4WD vehicles and communication gadgets to enhance patrols, especially in forests with isolated fragments.

• Expand the indigenous tree nurseries at each forest station, and engage the local CBOs in planting of seedlings in previously deforested areas.

• Establish forest stations in all fragments of forest IBAs and post forest guards in them to enhance control of illegal activities.

• Encourage communities neighbouring forest IBAs to have woodlots of fast maturing trees in the compound that will act as a long-term strategy of reducing dependence on forest resources in the IBA.

• Develop management plans for forest sites, with the involvement of all stakeholders, as essential documents to guide conservation activities of the IBA.

• Map the boundaries of the forest sites and have them gazetted to prevent future encroachment or conflicts with local communities.

• Replant or encourage natural regeneration of degraded forests with indigenous tree species.

• Work closely with the National Museums of Kenya (NMK), councils of elders and local communities to improve conservation of coastal Kaya forests.

• Give urgent and separate attention to mangrove forests and their sustainable harvest when developing management guidelines.

• Collaborate with funding organisations to initiate comprehensive biodiversity inventories of forest sites about which there is limited scientific knowledge.

• Develop guidelines on how to engage community based organisations and site support groups in forest conservation, to avoid delays in implementing community initiatives in forest conservation.

• Conduct awareness on IBA conservation and monitoring to change the attitude of forest officers, forest guards and communities on IBA conservation.

• Carry out inventories on eco-tourism attractions in forest IBAs and market them through the Kenya Tourism Board.

• Award all forests IUCN protection status and acquire title deeds.

National Environment Management Authority:

• Develop guidelines or policies for disposal of plastic and polythene papers, and disposal of sewage and industrial effluents.

• Conduct regular checks to ensure that sewage and industrial waste is deposited in the environment at minimal toxic levels that will not harm people and biodiversity.

• Enforce EMCA laws that control the development of new infrastructure in sensitive ecosystems that can threaten the survival of biodiversity, such as beaches along inland lakes, coastal beaches and major rivers.

• Regulate and enforce the ban on cultivation or clearance of vegetation along the riverbanks, which can control cases of flooding, siltation in lakes and oceans and destruction of coral reefs.

• Strengthen NEMA's capacity to analyse and evaluate all EIAs and to follow up on proposed mitigation measures; and give sufficient consideration to public comments and objections.

Service:

• Consider the re-establishment of wildlife corridors where feasible to enable the natural movement of wildlife.

• Closely monitor large mammal movements in protected areas to control their frequent dispersal into local communities' land. Ensure quick repatriation of straying animals from the IBAs before they cause widespread damage to people, crops and property.

• Translocate or remove elephants and other large mammal species from the parks and reserves where they exceed carrying capacity (Lake Nakuru National Park, Shimba Hills) to larger conservation areas to reduce habitat degradation and conflicts with the local people.

• Develop management plans with the active involvement of local communities in order to develop strategies that conserve habitat outside the protect IBAs and opportunities for reduction of human-wildlife conflicts.

• Conduct more research on the impact of habitat degradation by large mammals on smaller wildlife species (reptiles, amphibians, birds, invertebrates, plants) in IBAs with large mammal populations.

• Conduct regular environmental awareness around the IBAs by using the local community-based organisation as entry point in order to create a strong impact on changing negative community attitude towards conservation of protected areas.

• Conduct inventories of birds, reptiles and amphibians, plants and invertebrate life (where they are lacking); this information will help the management to adequately conserve these species in IBAs.

• Collaborate with communities neighbouring the IBAs to develop and market comprehensive eco-tourism initiatives, which can increase the amount of income earned by local communities.

• Undertake proper planning of tourism infrastructure and activities in order to reduce negative impact on shy animals species and sensitive habitats in the IBAs.

Annex 1: Sample Site Account

KE004 - Kinangop Grasslands

State: Large Decline *Pressure*: Increased Threats *Response*: Improvement (Status as at 2005)

State of Habitat and Species: *Kinangop Grassland IBA is the world stronghold for the globally threatened Kenyan endemic bird Sharpe's Longclaw* Macronyx sharpei. *However, this species exists on privately owned land lacking any legal protection status, and in the midst of a rapidly increasing human population. People are continuously sub-dividing large tracts of farms into smaller ones and ploughing them for wheat and vegetables, rather than practising traditional animal husbandry. These activities have substantially destroyed the preferred habitat for the threatened species. Human infrastructural development activities such as paths, roads, and buildings are further fragmenting the once vast contiguous moist highland grasslands. Therefore, the populations of the bird Sharpe's Longclaw, the local frogs* Hyperolius montanus *and* Phrynobatrachus kinangopensis, *the snake* Bitis worthingtonii *and other birds and animal species may be declining.*

Pressures and Threats

1. Kinangop Grassland IBA lies in an area that is not protected and most of the land is under private ownership. There is also very little local political will or legal interventions to improve the protection status of the IBA today or in the future.
2. Human population is rapidly increasing, and since the people are fully dependent on agriculture, large tracts of native grasslands previously used for animal husbandry are being cultivated with wheat and vegetables.
3. Rapid loss and fragmentation of the habitat preferred by Sharpe's Longclaw by ploughing of native tussock grasslands to open up new land for agriculture. Some plots of lands initially marked for Sharpe's Longclaw detailed monitoring have been partially or completely cultivated.
4. Continuing subdivision of large pieces of land into small portions for sale, or for parents to distribute their wealth to their children as inheritance.
5. Burning of vegetation and grazing pressure from the sheep and cattle contribute to further loss and degradation of the endangered bird's preferred habitat.
6. Increase of infrastructural developments such as roads, towns, villages, households, schools and health centres.
7. Since all farms are privately owned in Kinangop it is rather difficult to enforce any conservation policy prescriptions.

Responses and Conservation Interventions

1. Detailed monitoring is taking place at the site. Members of Friends of Kinangop Plateau (FokP), a local Site Support Group, are collecting data twice a year in February and August. FoKP members are involved in a schools outreach programme, bird watching, guiding and general public education on environment.
2. Initiation of income generation projects by FoKP members such as wool spinning and bee-keeping through funding from the European Union's Biodiversity Conservation Project and Danida. The small enterprises are intended to reduce the rate of conversion of land to crop cultivation through involving people in sheep rearing, which is compatible with the conservation of Sharpe's Longclaw.
3. The Forest Department has started a reforestation programme in some forested sections that have been damaged.
4. Purchase of a 45ha nature reserve by Nature Kenya as a nucleus for the conservation of Sharpe's Longclaw.

Current Research and Monitoring Work

1. Monitoring the habitat quality and populations of Sharpe's Longclaw and other bird species. This is being done by members of FoKP distributed throughout the whole IBA in four sub-groups.
2. The annual waterfowl counts in the Kinangop wetlands organised by the Department of Ornithology of the National Museums of Kenya (NMK), in collaboration with FoKP members.
3. Dr Muchai Muchane (NMK) and Kariuki Ndang'ang'a (BirdLife Secretariat) have been funded by the International Foundation of Science (IFS) to conduct a two year study to determine how various land-use regimes affect changes in habitat structure and bird populations in order to determine which land-use regime is ecologically and economically optimal for conserving Sharpe's Longclaws in the IBA.

Recommendations

1. More reserves that provide for the minimum viable populations of threatened biodiversity are required. This can be achieved through purchase of more land or providing incentives to farmers or other compensatory initiatives that encourage them to leave their land unploughed.
2. Constant feedback of monitoring data to the group after analysis at the NMK is needed, in order to keep members informed of the impacts

of their conservation and other socio-economic activities.

3. Gradually develop the capacity of the local Site Support Group to analyse and interpret the data collected from their site.
4. Provision of field equipment where needed.
5. Co-ordination of each monitoring exercise so as to have it carried out relatively concurrently within the same dates in all sub-groups.
6. Further exploration of the potential of eco-tourism based on sight seeing and bird watching as yet another possible source of income for the group and local community.
7. A comprehensive survey of other taxonomic groups such as plants, mammals, herpetofauna and invertebrates is urgently needed in order to provide the much-needed information for conservation planning.

Sources of information:

Detailed monitoring data from the site, IBA Paper database catalogue and press cuttings, Information from the IBA Basic Monitoring Form and Ng'weno, F., Otieno, N & Matiku, P. (eds) 2004. *Kenya's Important Bird Areas Status and Trends 2004*. Nature Kenya, Nairobi, 2004.

Useful contacts

- Francis Muigai, Site Conservation Intern for Kinangop Important Bird Area; Tel. 0720-962097.
- Chairperson, Friends of the Kinangop Plateau (Engineer) P. O. Box 491, North Kinangop.
- Wycliffe K. Misofi, (Forest Guard) South Kinangop Forest station Box 50 South Kinangop
- Conservation Programme, Nature Kenya - The East Africa Natural History Society Box 44486-00100, Nairobi. Tel. 3749957 or 3746090, e-mail office@naturekenya.org.

Annex 2: Sample of a Basic Monitoring Form, completed (in italics) by a participant from

Monitor IBAs — key sites for biodiversity conservation!

Please answer the questions below and attach any additional information. Guidelines are circulated with this form. Please give details and quantify changes wherever possible. All information is helpful, at any time. However, if you are resident at a site or a regular visitor, please try to return a completed form **once each year.**

Please return the completed form to the Forest Department and/or Nature Kenya at the addresses below or by e-mail (an e-mail version of this form is available - if you would like to use this, please request one from Nature Kenya).

1. Name of the IBA (please use a new form for each site) *Nairobi National Park*
2. Today's date: ***7th February 2005***
3. Your name: ***Christine Mwinzi***
4. Your contacts:
   postal address: ***Box 42076-00100, Nairobi***
   telephone/fax ***020-602121/603769***
   e-mail: ***nnp@kws.org***

5. Does this form cover (a) *the whole IBA* or (b) just part of the IBA? (tick one box)
If (b), which part / how much of the whole area?

6. Are you resident at the IBA? (a) Yes (b) ***No***
If (b) — what was the date and duration of the visit(s) you are reporting on? ***1/2/05-3/2/05***
— what was the purpose of your visit(s)? ***Research Work***

7. Please summarise the **current** status of natural habitat in the IBA, based on your observations and information, by circling a score from 1 to 4 below:

1 Largely intact and undisturbed
2 Slight decline in habitat area or quality
3 Substantial decline in habitat area or quality
4 Severe decline in habitat area or quality

8. Please summarise the level of immediate **future** threats to the IBA, based on your observations and information, by circling a score from 1 to 4 below:

1 No obvious immediate threats ***2 Slight*** 3. Substantial 4. Severe

9. Please give any further information and details that you think may be helpful. Please attach or send more sheets

Continued next page

or other documents/reports if necessary. **There is no need to answer all the questions or fill in all the tables** — please just put down the information that you have available. If possible, please attach a MAP (a copy of a topographical map, or a simple sketch map) showing the location/extent of the threats/actions that you identify, and the location of any records.

i. Current status (a) General comments:

The park is quite intact with animals /wildlife moving out of the park and hence leaving most of its vegetation under-utilised. Once back, the vegetation is utilized to the maximum. This collates with the bird population in the park.

(b) **Specific changes**. Please give information on the extent and rate of recent change (state the period) – provide numbers wherever possible

Period assessed	**From:**	**To:**	
Status variable		**Change score**	**Details**
Habitat area		***0***	***Habitat has not changed***
Habitat quality		***0***	***The quality has not changed***
Bird populations (specify species/groups)		***+***	
Other	***None***		

Scores for changes

–	Decline (unknown extent)			+	Improvement (unknown extent)
-3	Large decline	0	No change	+1	Small improvement
-2	Moderate decline	N/a	Not applicable	+2	Moderate improvement
-1	Slight decline	U	Not assessed	+3	Large improvement

ii. Threats/conservation issues:

(a) **General comments**: ***Major threat is impact of the growing human population in areas bordering the park.***

(b) **Specific threats**: Please assess the intensity of the threat, whether this is increasing, decreasing, or stable, and give details or comments to explain your assessment. Please give quantitative information as far as possible. The threats of chief concern are those that may affect the bird species for which the IBA is listed – including overflying migrant species in the case of–'bottleneck' IBAs

Threat class	**Intensity**	**Trend**	**Explanation/details**
Abandonment/reduction of land management	***N/A***	***N/A***	-
Agricultural intensification/expansion	***N/A***	***N/A***	-
Aquaculture/fisheries	***N/A***	***N/A***	-
Burning of vegetation—	***C***	***O***	***Burning is once a year***
Consequences of animal/plant introductions	***N/A***	***N/A***	-
Construction/impact of dyke/dam/barrage	***N/A***	***N/A***	-
Deforestation (commercial)	***N/A***	***N/A***	-
Disturbance to birds	***C***	***O***	***Only by visitors in game drives***
Drainage	***N/A***	***N/A***	-
Dredging/canalization	***N/A***	***N/A***	-
Extraction industry	***N/A***	***N/A***	-
Filling-in of wetlands	***N/A***	***N/A***	-
Firewood collection	***N/A***	***N/A***	-
Forest grazing	***N/A***	***N/A***	-
Groundwater abstraction	***N/A***	***N/A***	-
Industrialization/urbanization/infrastructure/intensified forest management	***N/A***	***N/A***	-
Natural events	***N/A***	***N/A***	-
Recreation/tourism	***High***	***+***	-
Selective logging/cutting	***N/A***	***N/A***	-
Shifting agriculture	***N/A***	***N/A***	-
Unsustainable exploitation	***N/A***	***N/A***	-
Other (please specify)			

Codes for intensity of threat

A High B Medium C Low U Unknown N/a Not applicable

Codes for trend of threat

- Threat decreasing 0 Threat stable + Threat increasing U Unknown N/a Not applicable

iii. Conservation actions/responses (a) General comments:

The park is under great conservation of its flora and fauna.

(b) Specific actions or responses: Please assess each action or response (improving, declining, no change, not applicable) and give details or comments to explain your assessment. Please give quantitative information as far as possible.

Actions/responses	Score	Explanation/details
Legal/protected area status	*+*	***Park management always tries to achieve the best.***
% of IBA under legal protection	*100%*	***The whole of the park is under legal protection.***
Establishment of local conservation group(s)		
Number of local conservation groups		
Number of local conservation group members		
Activities of local conservation groups		
Development of site action plan		
Implementation of action plan		
General management and policing	*+*	
Resource use controls/quotas		
Eco-tourism initiatives[a]		
Visitor numbers[a]		
Number of conservation staff and volunteers	*+*	
Revenue generated from site		
Surveys and research	*+*	
Conservation projects/actions: planned	*+*	
Conservation projects/actions: implemented	*+*	
Advocacy/interventions for site		
Publicity generated for site		
Environmental Impact Assessments		
Mitigation measures implemented		
Other (specify):		

Score: + improving – declining 0 no change N/a not applicable

[a]Note that the conservation effects of increased eco-tourism and visitor numbers are not always positive – please explain your rating

iv. Interesting bird records, population estimates, lists or other details

No records of birds are kept in the park but observations have been made of alarming groups of Marabou storks that have exceeded the expected number.

v. Records, population estimates, lists or details for other fauna or flora

Flora-diversified and in great abundance e.g. Croton megalocarpus and C. dichogamous, Acacia spp., Olea africana, Euphorbia spp. etc.

Fauna- examples Rhinos- above 70, Wildebeests- below 300, Zebras-above 2000, Buffaloes-above 800.

vi. Useful contacts (for research projects, site conservation groups, tourism initiatives, etc.)

-KILA
-EAWLS
-LVRI

vii. Other notes

NB - For more information on Kenya's Important Bird Areas, see 'Important Bird Areas of Kenya' by Dr. Leon Bennun and Peter Njoroge (EANHS, 1999). The book is available from the Nature Kenya office.

Note: Guidelines on how to fill the form are included with the monitoring forms given to participating organisations and Nature Kenya members.

References

1. Bennun, L. and Njoroge, P. 1999. *Important Bird Areas in Kenya*. Nairobi: Nature Kenya.
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4. Ng'weno, F., Otieno, N & Matiku, P. (eds) 2004. *Kenya's Important Bird Areas Status and Trends 2004*. Nairobi: Nature Kenya.
5. United Nations Environment Programme (UNEP), 1997. (Online) World Atlas of desertification 2nd ed., In: Malombe, I. Promising species from drylands of Kenya for *ex-situ* conservation. Royal Botanic Gardens Kew. 34pp.
6. Zimmerman, D.A., Turner, D.A. and Pearson D, J. 1996. *Birds of Kenya and Northern Tanzania*.

Annex 3: Matrix of Pressures and Threats on IBAs in 2005

KEY TO THE MATRIX ON FACING PAGE

- F - indicates presence of a threat as reported by the Forest Department
- K - indicates the presence of a threat as reported by the Kenya Wildlife Service
- X - indicates the presence of a threat as reported from other sources
- N - indicates that there is no information about that site.

Summary

- The IBAs with the greatest number of threats were: Masaai Mara (18 out of 27 threats), Kakamega Forest (15) Tsavo East National Park (12) and Lake Naivasha (10).
- The IBAs with the least number of threats were: Lake Magadi, Dandora Ponds, Kaya Waa and Dzombo Hill Forest, Tana River Forest each with one threat.

Interpretation of the Matrix.

Care should be taken when interpreting the Matrix. Just because a site has many threats reported does not necessarily mean that it is the most threatened site. The matrix does not take into account the magnitude of each threat. Therefore, a site with fewer but large-scale threats may be more endangered than a site with many threats that are small scale. Additionally, the number of pressures on a site is based on the amount of information collected through the Basic Monitoring Forms, print and electronic media and scientific research reporting. Little information received from many of the sites has resulted in biased reporting, but the identified gaps will be noted and addressed in future. The matrix provides a baseline understanding of the status of threats to IBAs in 2005.

Site Code	Site Name	Destructive Tourism Activities (DTA)	Trade (T)	Invasive Exotic Species (IS)	Illegal Fishing Methods/Overfishing (OF)	Overgrazing/Illegal Grazing (OG)	Human Wildlife Conflict (HWC)	Habitat Degradation by Wildlife (HDW)	Water Abstraction (WA)	Human settlement/Encroachment (HS)	Infrastructure development (ID)	Pollution (P)	Unsound Collection (UC)	Siltation/Soil Erosion (S)	Eutrophication (E)	Disease/Toxins (D)	Wetland Drainage/Infilling (WD)	Illegal Logging/Superhighway Destruction (IL)	Natural Events (NE)	Charcoal Burning (CB)	Agriculture encroachment/Illegal cultivation (A)	Illegal Hunting/Poaching/Trapping (IH)	Egg collection (EC)	Mobile and Phone Interference (MPI)	Road Accidents (RA)	Blocking of Migratory Corridors (BMC)	Uncontrolled Mining Activities (UMA)	Military Activities (MA)	Total
1	Aberdares (Nyandarua) Mountains		x		x	x	x	x	x	x			x					x	x		x								11
2	Barpenga Valleys																				x	x							2
3	Bishigu Escarpment Forest					x	x			x			x					x			x								6
4	Barangop Grasslands									x																			2
5	Mt. Kenya National park/reserve	x	x		x	x			x	x			x					x		x	x								10
6	Mukurweini Valleys			x									x								x								2
7	Ambuko-Sokoke Forest	F	F					x					F					F	F	x	x	x							9
8	Dakacha Woodlands																	x				x							2
9	Dawa Forests	x	x							x								x				x							5
10	Donyo Ndoto Forest																				x								1
11	Dodo Ruins National Monuments	F				F							F								x								4
12	Kaya Gandini																	x			x								2
13	Kaya Wea									x																			1
14	Kiunga Island	x			x													x					x						4
15	Kiunga Marine National Reserve	x										x						x	x		x								5
16	Malindi Creek, Whale island and Malindi/Watamu Coast	x		x	x	x			x	x			x				x	x			x								10
17	Marenji Forest																	x		x		x							3
18	Mimiruhi Hill Forest									x			x					x				x							4
19	Sabaki River Mouth	x	x	x	x							x								x	x								7
20	Shimba Hills		F	x				x		x		x	x					F			x	x					x		10
21	Taita Hill Forests			x		x	x				x		x					x			x	x		x					9
22	Tana River Delta			x	x	x			x				x				x	x			x								6
23	Tana River Forest																				x								1
24	Tsavo East National Park	x	x	x		x	x	x				x			x				x	x		x			x				12
25	Tsavo West National Park	x	x	x		x							x					x		x									7
26	Chyulu Hills Forests		x			x								x				x		x		x							6
27	Dida Galgalu Desert																												
28	Lake Turkana				x	x							x						x										4
29	Machakos Valleys									x											x								2
30	Masinga Reservoir				x									x	x														3
31	Meru National Park	x	x		x	x			x				x			x								x					6
32	Mwea National Reserve		x		x					x			x	x				x											6
33	Samburu and Buffalo Spring National Reserve	x				x							x	x				x	x										6
34	Shaba National Reserve	x				x		x					x							x									5
35	Dandora Ponds			x																									1
36	Nairobi National Park	x	x			x	x			x		x		x						x						x			9
37	Dunga Swamp	x	x		x	x				x	x	x					x	x			x								10
38	Kogusa Swamp					x						x						x			x								4
39	Kusa Swamp		x			x				x		x		x				x			x								7
40	Ruma National Park		x			x			x	x	x		x					x			x	x							9
41	Yala Swamp		x		x	x						x		x			x	x			x								6
42	Arabuko Nat ional Park	x				x		x																					2
43	Cheranganu Hills					x				x			x	x				x		x	x								7
44	Lake Baringo	x		x	x	x								x						x									6
45	Lake Bogoria National Reserve	x	x						x					x		x		x											6
46	Lake Elmenteita		x			x				x			x	x				x		x						x			6
47	Lake Magadi											x																	1
48	Lake Naivasha		x	x	x				x	x		x			x			x			x					x			10
49	Lake Nakuru National Park	x		x			x					x		x	x							x							7
50	Nasuu Mara National Reserve	x	x	x	x	x			x	x		x	x	x			x	x		x	x	x				x	x		14
51	Nasuu Forest Complex		F	F		F			F	F			F					x		x	x								6
52	Nasuu Nandi Hills Grasslands					x				x											x								2
53	North Nandi Forest		x	x		x				x			x							x	x								7
54	Ol Donyo Sabachi		x			x						x																x	4
55	South Nandi Forest		x			x				x			x							x	x	x							7
56	South Ngurumani					x				x																			2
57	Ruma Grasslands					x				x											x								2
58	Sakunaga Forest	x	x	x	x	x			x	x	x		x				x	x		x	x	x		x					12
59	Mt. Elgon		x			F	x		F	F			x				F	x			F	x							10
60	Sio Port Swamp									x		x						x											2
	Total	21	26	14	16	24	7	7	12	29	4	12	26	12	4	2	7	22	6	17	28	14	1	2	1	2	2	1	255
P1	Boni and Dodori Forests	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	M
P2	Boreglo Escarpment	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	M
P3	Mathews National Park	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	M
P4	Mt. Kasigau Forest									x			x					x			x			x					5
P5	Mt. Kulal						x											x											2
	Total					1				1			1					2			1			1					7

Annex 4: List of contributors

The following have contributed to this IBA monitoring and conservation status report from their site visits by completing the IBA Basic Monitoring forms. Some teams have submitted more than one bird record/checklists of the areas they visited. We owe you lots of thanks and hope you continue to make similar spirited contributions in future.

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Bernard Kuloba - KWS
Bernard Ngoru - KWS
Bernard Obera - KCC
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Brian Finch – EAOS
Briggite Wanjiku
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Charles M. Wamola - FD
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Members of KENVO
Members of MEVO
Members of the NbiRG
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Moses Omurambi - KWS
Muchai Muchane - NMK
Mugumi Bakari Chongwa - KWS
Munene Rauni - KWS
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Nassir Abdallah Bege - MRIMADZO
Nicodemus Nalianya – NMK
Nature Kenya Outings
Ochola - LBDA
Oliver Nasirwa - NMK
Onesmus Kioko - NMK
Opiyo Oduwo - OSIENALA
Otieno Nickson - NMK
Patricia Thiong'o - NK
Patricia Wambui - FoKP
Patrick Gichuk - NMK
Patrick Malonza - NMK
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Peter K. Mwangi
Peter Kamau Mwangi
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Philip Kirui - WCK (Western)
Philista Malaki - NMK
Priscilla Boera -KEMFRI
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Robert O. Otieno - KWS
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Samuel Andanje - KWS
Samuel Kasiki - KWS
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Shailesh Patel - NK
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Timothy Mwinami -NMK
Titus Imboma - NMK
Wanyoike Wamiti - NMK
Waterfowl Count Volunteers
Wellingtone Kombe-FD
William Olang - NK
Wilson Kiprono-FD
Wilson M. Kamau - FD
Wycliffe Khamala
Wycliffe Misoi - FD
Yussuf Ali -KWS

Acronyms:

BI BirdLife Internat'l
BCP Biodiv. Cons. Prog.
CFCU Coastal Forest Conservation Unit
EWRVLP Earthwatch Rift Valley Lakes project
FD Forest Department
FoKP Friends of Kinangop Plateau
KEMFRI Kenya Marine Fisheries Research Inst.
KENVO Kijabe Env. Vol.
KWS Kenya Wildlife Ser.
KWSTI KWS Training I.
LBDA Lake Basin Dev.A
LEBSHG L. Elmentaita Birding & Self-Help G.
MRIMADZO Mrima, Marenji and Dzomo G.
NbiRG Nairobi Ringing g
NMK National Museums
NEMA Nat. Envi. Man.A.
NK Nature Kenya
OSIENALA Friends of Lake Victoria
WCK Wildlife Clubs of K