Kenya's Important Bird Areas

Status and Trends 2007

RSPB BirdLife INTERNATIONAL KENYA WILDLIFE SERVICE KENYA Forest Service NATIONAL MUSEUMS OF KENYA NatureKenya The East Africa Natural History Society

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Acronyms

ASFGA – Arabuko Sokoke Forest Guides Association
BI – BirdLife International
CBD – Convention on Biological Diversity
CDF – Community Development Fund
CDTF-CEF – Community Development Trust Fund-Community Environmental Fund
CEPF – Critical Ecosystem Partnership Fund
DANIDA – Danish Aid
DFID – Department for International Development (UK)
DOF – Danish Ornithological Society
EIA – Environmental Impact Assessment
EU-CEF – European Union-Community Environmental Fund
FAO – Food and Agricultural Organization
IBA – Important Bird Area
JICA – Japan International Co-operation Agency
KEEP – Kakamega Environmental Educational Programme
KENVO – Kijabe Environment Volunteers
KFS – Kenya Forest Service
KNH – Kindernothilfe (Germany)
KWS – Kenya Wildlife Service
LCGs – Local Conservation Groups
MDGs – Millennium Development Goals
MEVO – Mukurwe-ini Environment Volunteers
NABU – BirdLife in Germany
NEMA – National Environment Management Authority
NGOs – Non-Government Organisations
NK – Nature Kenya
NMK – National Museums of Kenya
NORAD – Norwegian Agency for Development Co-operation
PA – Protected Area
RSPB – Royal Society for the Protection of Birds (UK)
SONABIC – South Nandi Biodiversity Conservation Group
SSG – Site Support Groups
USAID – United States Agency for International Development

ACKNOWLEDGEMENTS

The Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), Site Support Groups (SSGs) and volunteers collected the Important Bird Areas (IBAs) monitoring data from parks, reserves and community areas that are designated as IBAs. Nature Kenya and the National Museums of Kenya provided the institutional technical back-up, data collection coordination, data storage and analysis, and facilitated training of staff from government and non-government institutions on various aspects of IBA monitoring. The Important Bird Areas National Liaison Committee (IBA-NLC) provided the strategic institutional support and guidance on the institutionalization of the IBA monitoring framework. To this end, the IBA-NLC monitoring sub-committee is thanked for their invaluable support.

The IBA framework was initiated using a GEF/ UNDP grant, and activities were up-scaled through the support of the Darwin Initiative that enabled publication of the first Status and Trends report. Nature Kenya and partners in IBA work are grateful to these institutions. Other donors to Nature Kenya, including the Critical Ecosystem Partnership Fund, have supported activities targeting IBAs in various and important ways that are highly appreciated.

The **European Commission** is appreciated for providing the funds for the continued monitoring programme through Birdlife International, and The Royal Society for the Protection of Birds of Birds (RSPB). This report is a product of the project "Instituting Effective Monitoring of Protected Areas (IBAs) as a contribution to reducing the rate of biodiversity loss in Africa."

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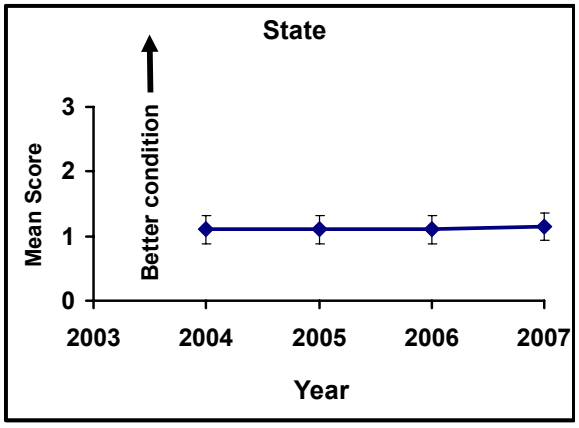
EXECUTIVE SUMMARY

Important Bird Areas are key sites for the conservation of birds and other biodiversity. Sixty Important Bird Areas have been identified in Kenya so far. As part of action to conserve the sites and their unique birds and habitats, Nature Kenya – the East Africa Natural History Society – and the National Museums of Kenya, Kenya Wildlife Service, Kenya Forest Service, National Environment Management Authority and other partners implement a monitoring programme and publish the results each year.

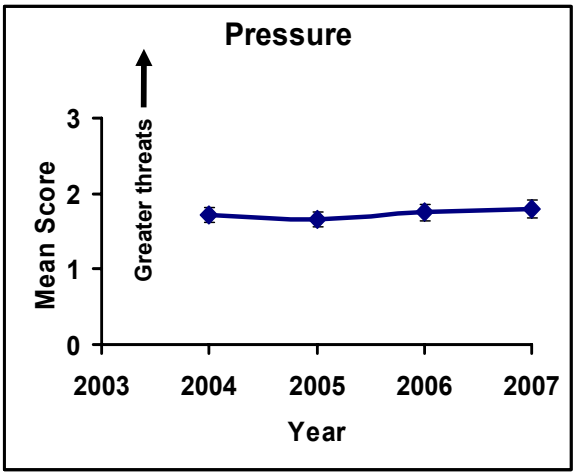
This report presents the results of an analysis of data and information collected in Important Bird Areas (IBAs) in Kenya in 2007. IBAs include sites that are protected and unprotected; and varied habitats such as forests, grasslands, woodlands, wetlands and drylands. Data and other information were collected using the IBA monitoring form (*See Annex 1*). The analyses are based on 59 forms received for the year 2007, including results from detailed monitoring on eight sites.

The findings of the monitoring work are represented using the "State-Pressure-Response" approach on which the IBA monitoring framework is based:

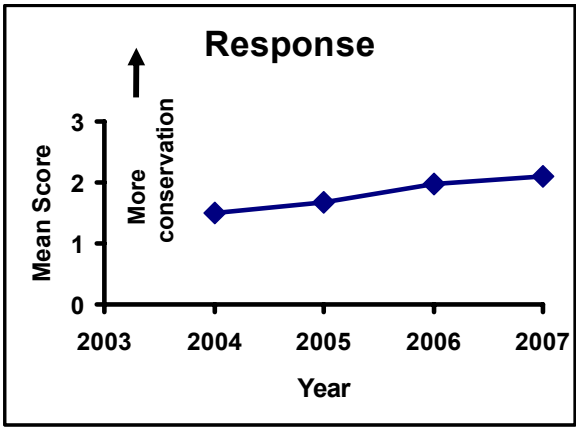
• **State**. There was a ***very slight improvement*** in the status of IBAs, with positive changes noticed at sites such as the Aberdares forest, Mt Kenya and Amboseli National Park. Marked deterioration was noticed at sites like Dakatcha Woodlands, Kianyaga Valleys and Busia Grasslands, among others. Wetlands are particularly hard hit; for example, the total number of birds on Lake Naivasha has been going down, based on the waterfowl counts that have been taking place since 1991.



• **Pressure.** Pressure ***continues to mount.*** The major threat to the biodiversity in IBAs in the year 2007 remains human activities. Overgrazing / illegal grazing, agricultural encroachment / illegal cultivation, illegal logging / vegetation destruction, uncontrolled firewood collection and human settlement / urbanization were threats to over 57% of the IBAs. Tana River Delta and Yala Swamp are hard-hit by agricultural expansion.



• **Response.** Response to the threats shows a ***positive trend*** in 2007 with enhanced activities from mainstream government agencies, NGOs and local communities. For instance, there were increased patrols by Kenya Wildlife Service (KWS) and Kenya Forest Service (KFS) in most of the protected IBAs and donor support for site based action in previously neglected sites. Of special mention here are EU-CEF and CEPF who provided support for invaluable community actions.



Recommendations to improve the status of IBAs and their biodiversity have been proposed in this report (*See pages 13-17*). There are general recommendations and those that target key government agencies and civil society in conservation work. Collaborative resource management is critical for all IBAs.

Important Bird Areas

Important Bird Areas (IBAs) are key sites for the conservation of birds and other biodiversity. IBAs have been identified all over the world, using BirdLife International's objective and scientific criteria. IBA sites are selected because they contain:

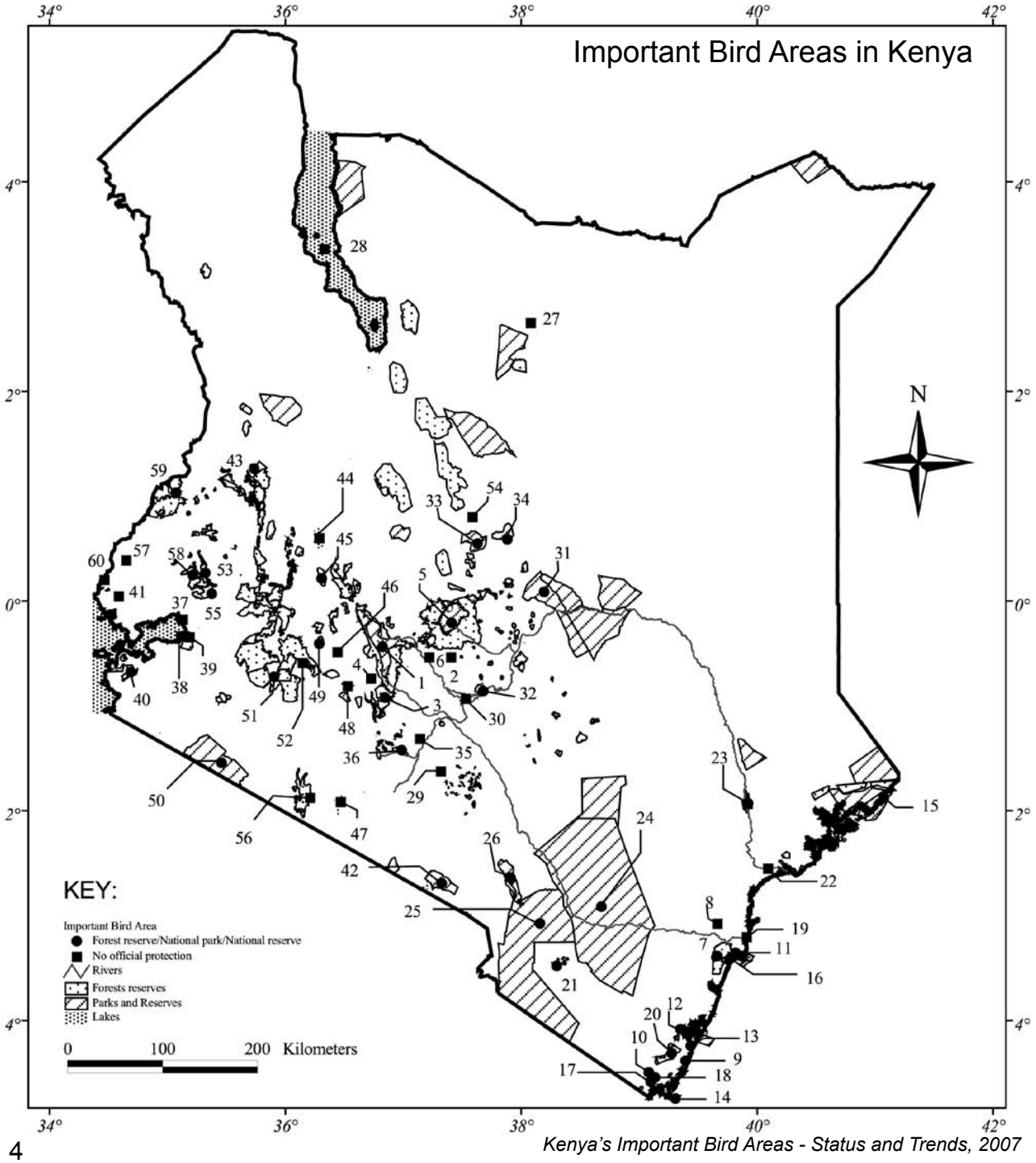
1. Globally threatened bird species, such as the Aberdare Cisticola found only in high-altitude grassland.

2. Bird species living only in a small area, such as Clarke's Weaver found only in Arabuko-Sokoke Forest and Dakatcha Woodland.

3. Bird species found in a particular biome, such as those that only live in papyrus wetlands.

4. Exceptionally large gatherings, or congregations, of bird species, such as the thousands of waterbirds found in the Tana River Delta.

Nature Kenya (the BirdLife Partner for Kenya) and the National Museums of Kenya collected information about birds countrywide, identified 60 Important Bird Areas, and published the findings as *Kenya's Important Bird Areas* by Leon Bennun and Peter Njoroge, in 1999. The book is available from the Nature Kenya office. The IBA definition process is dynamic, and new sites may be listed as IBAs while others may be de-listed as conditions change. At present at least two more sites are



being evaluated to be listed as additional IBAs. Kenya's 60 IBAs are shown in the map on page 4.

IBAs also form part of a wider set of sites called Key Biodiversity Areas (KBAs). KBAs are places of international importance for the conservation of endangered birds, plants, mammals, reptiles, amphibians and other living things.

Action is now being taken for the conservation and management of IBAs in Kenya. The Important Bird Areas National Liaison Committee, composed of Government and non-government institutions and organizations, provides strategic guidance to IBA conservation work. Fifteen IBAs have fully operational Site Support Groups (SSGs) implementing conservation actions with minimum involvement from government and larger civil society organizations. Ten IBAs have benefited from integrated conservation and development initiatives implemented by Nature Kenya. A policy and legislation working group coordinated by Nature Kenya is providing policy advice in support of IBA conservation. The IBA concept has been taken up and mainstreamed into routine government planning, conservation action and reporting.

An important aspect of work in IBAs is monitoring, to keep up with both positive and negative changes in IBAs and inform future management. Monitoring is carried out by local Site Support Groups, volunteers, and staff of Government agencies such as Kenya Wildlife Service, Kenya Forest Service and National Museums of Kenya. For more information on Important Bird Areas and the Monitoring Framework in Kenya, see Annex 2.

The analysis in this report is mainly based on data from 59 basic monitoring forms retrieved from 37 out of the 60 sites (62 %). Data for 2006 is used for 23 sites from which no forms were received.

Summary of the status of Kenya's IBAs in 2007

IBA number	Name of Site	State
1	Aberdare Mountains	Moderate Improvement
2	Kianyaga Valleys	Large Deterioration
3	Kikuyu Escarpment	Small Improvement
4	Kinangop Grasslands	Large Deterioration
5	Mt. Kenya (NP& NR)	Small Improvement
6	Mukurwe-ini Valleys	Large Deterioration
7	Arabuko-Sokoke Forest	Small Deterioration
8	Dakatcha Woodland	Large Deterioration
9	Diani Forest	Decline
10	Dzombo Hill Forest	Not ascertained
11	Gede Ruins Nat'l Mon.	No change
12	Kaya Gandini	Small Deterioration
13	Kaya Waa	Small Improvement
14	Kisite Island	Small Improvement
15	Kiunga Marine Nat Res	Moderate Improvement
16	Mida Cr., Whale Is., Malindi/Watamu Coast	Small Deterioration
17	Marenje Forest	Small Deterioration
18	Mrima Hill Forest	Moderate Improvement
19	Sabaki River Mouth	Small Deterioration
20	Shimba Hills	Small Improvement
21	Taita Hills Forest	Major decline
22	Tana River Delta	Small Deterioration
23	Tana River Forests	Small Deterioration
24	Tsavo East Nat Park	Small Improvement
25	Tsavo West Nat Park	Small Improvement
26	Chyulu Hills Nat Park	Small Improvement
27	Dida Galgalu Desert	No change
28	Lake Turkana	Small Deterioration
29	Machakos Valleys	Moderate Deterioration
30	Masinga Reservoir	Slight Improvement
31	Meru National Park	Large Improvement
32	Mwea Nat'l Reserve	Small Deterioration
33	Samburu & Buffalo Springs	Small Improvement
34	Shaba National Reserve	Small Deterioration
35	Dandora Ponds	No change
36	Nairobi National Park	Small Improvement
37	Dunga Swamp	Moderate Deterioration
38	Koguta Swamp	Small Deterioration
39	Kusa Swamp	Small Deterioration
40	Ruma National Park	Small improvement
41	Yala Swamp	No change
42	Amboseli Nat'l Park	Small Improvement
43	Cherangani Hills	Small Deterioration
44	Lake Baringo	Small Improvement
45	Lake Bogoria Nat Res	Slight Improvement
46	Lake Elmenteita	No change
47	Lake Magadi	Small Deterioration
48	Lake Naivasha	Small Deterioration
49	Lake Nakuru Nat Pk	Slight Improvement
50	Maasai Mara NR	Moderate Deterioration
51	Mau Forest Complex	Moderate Deterioration
52	Mau Narok/Molo Grasslands	Large Deterioration
53	North Nandi Forest	Small Deterioration
54	Ol Donyo Sabache	Slight Improvement
55	South Nandi Forest	Small Deterioration
56	South Nguruman	No change
57	Busia Grasslands	Large Deterioration
58	Kakamega Forest	Large Improvement
59	Mt. Elgon	Small Deterioration
60	Sio Port Swamp	Small Deterioration
Potential IBAs		
P1	Boni and Dodori Forests	Small Deterioration
P2	Kongelai Escarpment	Not ascertained
P3	Malkamari National Park	Not ascertained
P4	Mt Kasigau Forest	Not ascertained
P5	Mt Kulal Forest	Major decline

State of habitats and species

The government of Kenya recognizes that future sustained economic growth requires sound and equitable allocation of resources in management of forests, wetlands, moist grasslands and arid / semi-arid land ecosystems, which harbour Kenya's key biodiversity habitats and many of its cultural and spiritual sites that are crucial for biodiversity conservation. However, this government plan and wish is yet to be realized—most forests have been destroyed and now there are reports of floods, landslides, reduced water flows and drying up of rivers and springs all due to conversion and/or destruction of forests.

Based on the analysis from site reports, at least there was moderate improvement in Aberdare National Park while Amboseli National Park recorded a small improvement in habitat status. Sites like Maasai Mara recorded a deterioration, and a number of sites such as Mau Forest Complex, Busia Grasslands and Machakos Valleys still recorded large deterioration, just as in 2006. Dispersal and migratory areas for wildlife have been encroached, blocking free wildlife movement into and out of parks such as Nairobi National Park and Maasai Mara National Reserve. The state of wildlife habitats demands immediate and concrete action.

Protected Areas IBAs

Thirty-five IBAs (58% of all IBAs) are under the protection and management of Kenya Wildlife Service (Parks and Reserves) and Kenya Forest Service (Forests). The data showed increased responses in the form of patrols in parks and reserves and these seem to have led to a substantial reduction in the number of illegal activities, resulting in improved quality of various IBAs such as Aberdares, Mt Kenya and Amboseli National Parks. The initiative by KWS to relocate 228 elephants from the Shimba Hills to the Tsavo National Parks eased congestion, reducing habitat destruction by elephants.

Unprotected IBAs

There are twenty-five (42%) unprotected IBAs in Kenya. Sites that recorded large deterioration during this reporting year include the Mukurwe-ini, Machakos and Kianyaga valleys, Dakatcha Woodland, and Kinangop, Mau Narok / Molo and Busia grasslands. The problem in Machakos Valleys is particularly acute, largely because of rampant uncontrolled sand mining and cultivation into the riverbeds. The endemic Hinde's Babbler is now found further away from known sites in Mukurwe-ini and Kianyaga Valleys, although a GIS-based survey carried out by BirdLife International established that there is still some sizeable good habitat in the IBAs. It seems likely that the birds have been disturbed by increased threats arising from human activities, and the general trend for the habitat and Hinde's Babbler is quite worrying.

Most moist grassland habitats in Kenya have received virtually no conservation attention from government authorities, remain largely unprotected and are vanishing at an alarming rate. For example, large portions of Kinangop Plateau grasslands have been converted to wheat farms; and only a few patches of grasslands remain in Busia, where large areas have been converted to small scale farms and sugar cane plantations. In response, Nature Kenya has purchased 95 acres of grassland habitat for the perpetual conservation of the endemic Sharpe's Longclaw—but much more grassland is needed to save the species, and its future depends on the good will of farmers.

In Dunga and Yala swamps, the effect of papyrus harvesting is still a major concern. Dakatcha Woodland IBA is facing many threats, including commercial and subsistence logging, extensive charcoal production (20 kilns recorded in a 1km transect) and poaching of wild animals for sale and domestic utilization. Since unprotected IBAs are increasingly being threatened, as they are under private ownership, or communal ranching schemes or unallocated pieces of land, more awareness and education as far as their importance for birds and other biodiversity needs to be done.

Top on the threat list is now the Tana River Delta. Despite its large size, it is now under severe threat from sugarcane growing companies. The Mumias Sugar Company (with the Tana and Athi River Development Authority, TARDA) and MAT International have plans to convert over 100,000 ha of Tana Delta seasonal wetlands to irrigated sugar cane. Vast numbers of cattle currently use the Delta grasslands as dry season grazing, and local farmers and fishermen also depend on the river's water for their livelihood. Local people, pastoralists and civil society in Kenya and outside have protested the decision by government to support the projects. The best option for Tana seems to be to promote multiple uses, e.g. livestock, fishing, small scale agriculture and tourism that are compatible with conservation and sustainable development objectives.

Forest IBAs

Kenya is still operationalising the Forest Act 2005, including setting up the Kenya Forest Service and designing structures and regulations for effective forest conservation. It is too early to assess the impact of this effort by the government. The post-election violence in late December 2007 to January 2008 led to high insecurity in the country and made forest policing very difficult. Rich forest ecosystems that are of value culturally, economically and ecologically are being destroyed by the relentless march of cultivators, loggers and charcoal makers. The upsetting of the ecosystem balance has grave consequences, for people and for other biodiversity.

The five main "water towers" (Mt Kenya, Mt Elgon, the Aberdares, the Mau Escarpment and the Cherangani Hills) are under severe threat from deforestation. A study by NEMA and other stakeholders shows that rivers that originated from the once expansive Mau forest are receding and are heavily polluted; the levels of phosphates and nitrates have reached dangerous proportions in the Mara River that stretches to neighbouring Tanzania. The chemicals are released into the river when rainwater washes off fertilizer used by farmers who have encroached on the forest. Soil erosion has also increased as farmers clear the forest and leave large swathes of steep land bare. Hydro-electric power stations, especially the new Sondu Miriu, cannot operate at full capacity because there is not enough water to move the turbines. Lake Nakuru is badly hit by siltation from loss of forest cover in the Mau Forest Complex.

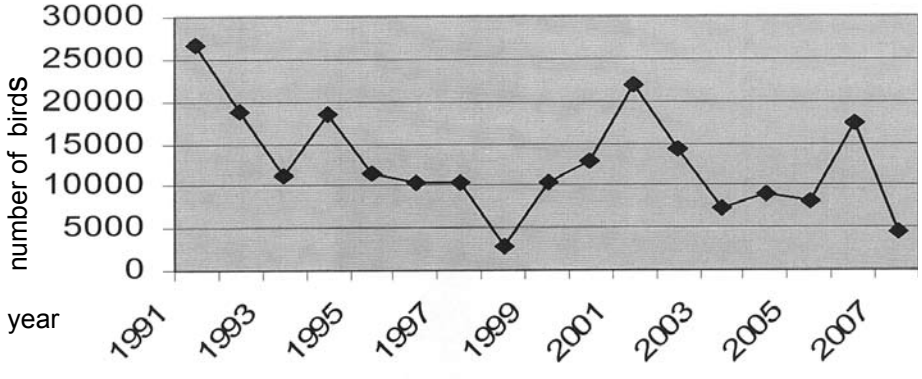
Wetland IBAs

Wetland IBAs are important for the conservation of resident and migratory birds and fisheries in Kenya. Local communities living adjacent to these wetlands also benefit as they draw water from them for domestic use and irrigation. Protection of rivers, lakes, swamps and other wetlands is vital to Kenya's future as water demand increases and climate changes. The delay by the government to enact a wetlands policy and the lack of regulations and guidelines threatens the survival of these fragile ecosystems. The wetlands policy has been in draft form for a long time and this has led to a number of threats to the ecology of some wetlands such as Yala Swamp, Tana Delta and Lake Naivasha, among others.

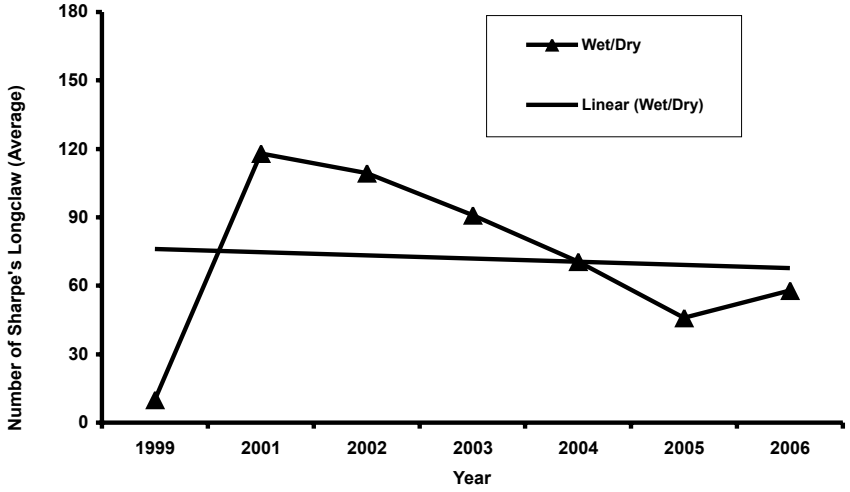
The main threat facing wetlands, including the riparian tussock grasslands, are human encroachment and settlement. Other threats to wetlands include over-exploitation, conversion and drainage for development activities, loss of catchment forests, pollution and colonization by alien invasive species. Among the impacts are a reduction in total number of birds counted on some Rift Valley lakes, as evidenced by an example drawn from Lake Naivasha (below), based on the waterfowl counts that have been taking place since 1991.

Illegal cutting of indigenous trees and unregulated agricultural practices, which have seen large amounts of water diverted for irrigation, are some of the factors contributing to the sorry state of the country's lakes, such as Lakes Nakuru, Bogoria and Elementaita. Climate change, overfishing, lack of effective management practices, discharge of pollutants, introduction of exotic species or shifting of species are also affecting our lakes.

Trends in bird counts on Lake Naivasha



Trends in numbers of Sharpe's Longclaw at Murungaru, Kinangop Plateau



as a result of conversion to wheat farming as seen in the Kinangop and Mau Narok/ Molo grasslands. Because of these threats, the status of the Kinangop and Busia grasslands indicates a higher deterioration level compared to previous years. In Kinangop (where detailed monitoring is taking place), the habitat is being converted to wheat farming, and numbers of endemic Sharpe's Longclaw have been going down as shown in detailed monitoring results in the graph at left.

The year 2007 was a particularly bad year for Kenya's wetlands: Lake Naivasha has been seriously affected by intensive flower farming; Yala Swamp continued to be drained for agriculture; and unsustainable harvesting of papyrus in Dunga, Kusa, Koguta and Sio Port continued unabated. The Sabaki River Mouth is threatened by looming adjudication of neighbouring land. The Tana Delta is the most seriously threatened, by plans to plant sugarcane for sugar and bio-fuel.

Woodland and Dryland IBAs

There are 12 IBAs in arid and semi-arid areas, which remained more or less intact due to low impact from human activity. But Dakatcha Woodland, due to its unprotected status, is facing serious threats from logging, charcoal production and poaching for commercial purposes. The resource use in Dakatcha Woodland is not sustainable and risks upsetting the ecological balance. Urgent measures to protect Dakatcha Woodland are needed, and Nature Kenya has started conservation actions with support from BirdLife International and CEPF (Critical Ecosystem Partnership Fund). Machakos River valleys continue to be degraded by uncontrolled sand harvesting and clearing of vegetation.

Grassland IBAs

Grassland habitats in Kenya have received very little conservation attention from authorities, although they contain a suite of restricted-range bird species. This is largely because they are located on privately owned farms. Most grassland habitats are disappearing

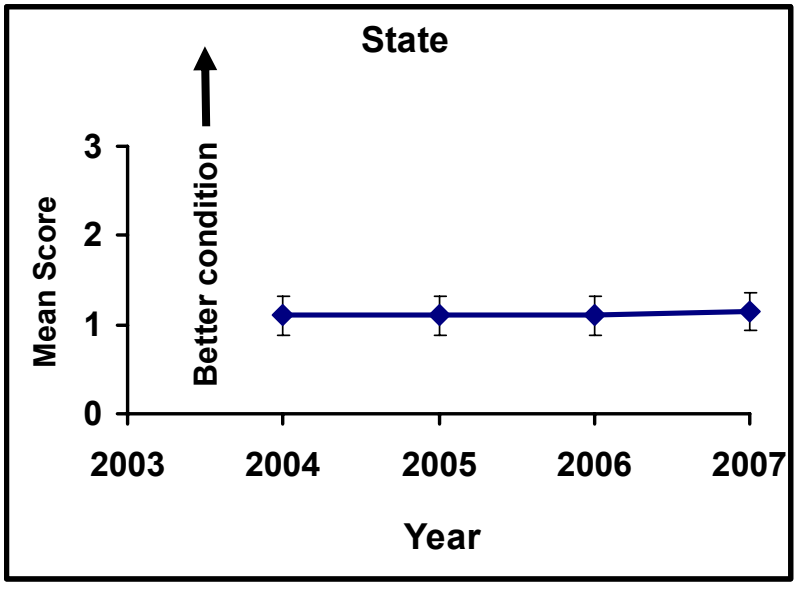
General observations

There has been a slight improvement in the status of the IBAs from 1.10 in the past three years to 1.13 during this reporting period. Conservation responses in IBAs also increased in 2007, but are still too little to offset the ever increasing pressure. The state of IBAs is being shaken, even though the data shows a stable trend.

Poverty, driven by un-employment, high cost of living and unreliable rainfall, among other factors, are key drivers to loss of prime biodiversity habitats because of heavy reliance on nature by poor people for their basic needs, including firewood, charcoal and building poles. Kenya has many conservation policies, legislation and institutions; but because they are either poorly coordinated or very poorly resourced, they have not been effective enough to control the high levels of habitats loss through land degradation, cutting of trees, drainage of wetlands and pollution of rivers and lakes.

Trends in the State of Kenyan IBAs (n = 60)

Values plotted are mean scores with error bars representing ± 1 standard error.



Pressure: Threats to IBAs

The overriding threat to Kenya's IBAs continues to be the ever-increasing human demand for land, coupled with changes in land use. Poverty and population increase remain the major challenges. See table at right for trends in the threats for the past four years. There was a slight increase in the number of threats reported in 2007 as compared to 2006. Although this increase could be attributed to an increased rate of reporting as a result of the awareness created, the need to grow more crops for local food sufficiency, export and industrial use, plus the rising demand for other land uses, means that there will be increasing pressure on natural habitats. Human settlement / Urbanization and Siltation / Soil erosion were each recorded in three more IBAs compared to year 2006. Overall, the pressure shows an upward, worrying trend.

Major threats to IBAs, 2004 to 2007

Threat	2004 (% of IBAs)	2005 (% of IBAs)	2006 (% of IBAs)	2007 (% of IBAs)
Agricultural encroachment/Illegal cultivation	22	55	62	63
Overgrazing/illegal grazing	43	57	62	63
Illegal logging/vegetation destruction	32	55	60	60
Uncontrolled firewood collection	32	43	58	62
Human settlement/urbanization		47	53	58
Fires		43	43	45
Invasive exotic species		27	33	37
Destructive tourism activities		35	35	35
Charcoal burning	32	28	32	33
Illegal hunting/poaching/trapping		27	28	30
Unsustainable water abstraction			28	30
Illegal fishing methods and over fishing		27	28	28
Siltation/Soil erosion			27	32
Pollution		25	25	27
Wetland drainage/filling			18	22
Natural events			15	17
Human wildlife conflicts	10		12	12
Habitat degradation by wildlife			10	12
Destructive mining activities			8	12
Infrastructure development			7	8
Medicinal plant collection (debarking and uprooting)			7	8
Blocking of migration corridors			7	7
Eutrophication			5	7
Diseases/toxins			3	3
Egg collection			3	3

Agricultural expansion, Illegal cultivation

Agricultural expansion has remained the most important threat, with a 1% increase between 2006 and 2007. Agricultural expansion and illegal cultivation was a threat in 24 out of the 35 protected IBAs. Changes in land ownership and use has led to commercial agriculture in Busia and Kinangop grasslands, Mukurweini and Machakos valleys and the areas adjacent to the Maasai Mara National Reserve, fragmenting natural habitats and landscapes.

Agricultural activities are also an issue around Lake Bogoria and Lake Naivasha, where abstraction of water for irrigation is a major threat. Clearing of vegetation for cultivation is a major threat in Mt Elgon and the Tana Delta, among other IBAs. Encroachment and agricultural expansion and intensification remain key problems in the Mau Forest Complex.

It can be predicted that in future years, agricultural expansion will continue to be an even bigger threat. Kenya's economy is very dependent on agriculture, and the near collapse of the agricultural extension services means more virgin land is opened up to cope with increasing population pressure and unreliable rainfall. Growing plants to produce biofuel is another factor that leads to food insecurity and degrades lands currently under biodiversity conservation. The issue of biofuel must be urgently addressed as it threatens not only biodiversity but also human survival.

Overgrazing and Illegal grazing

This is the second most important threat after agricultural expansion. Grazing of livestock and crop cultivation all are related threats for they link directly to food production and the quest for national development as Kenya's economy is largely dependent on agriculture. Overgrazing and illegal grazing is a threat in 38 (63%) of the IBAs. Overgrazing has caused massive amounts of soil erosion and silting in Lake Baringo and Bogoria, and is a major issue in Lake Naivasha, among others. The effect of overgrazing on the bird species in IBAs needs to be investigated further.

Illegal Logging and Vegetation Destruction

Some permanent rivers are reported to have changed to seasonal ones, while others have dried up completely due to human encroachment on forests, charcoal production and illegal logging in water catchment forests. This is a threat in 23 out of the 35 protected IBAs. Massive illegal exploitation of indigenous hardwood species for timber and charcoal has been reported in Mau Complex forests, Dakatcha Woodland, North and South Nandi forests, Cherengani Hills and sections of Kakamega Forest, among others.

Fuelwood collection

Fuel wood collection is allowed for subsistence use in many forests, but this is widely abused. Fuel wood

collection was reported in several IBAs (27 out of the 35 protected IBAs). There is need to investigate further the impacts on forest specialist bird species. Most of the IBAs are surrounded by a dense human population, dependent on fuel wood collection. The Kenya Forest Service has permit-based controls, but the rate of uptake is unsustainable as it is not based on sustainable yields.

Human settlement and urbanization

Increased human population has caused settlements to be carved out of some IBAs. Some traditional wildlife migratory corridors that once linked several sites have been blocked due to human settlement and related activities. This issue was reported to be affecting 20 out of the 35 protected IBAs. The most affected IBAs include Nairobi National Park, Mt Kenya, Mau Forest Complex and Shimba Hills. Mau Forest Complex, and particularly the Maasai Mau segment, have experienced serious pressure of human settlement. The government has tried to evict the illegal settlers, but with limited success given that 2007 was an election year.

Lake Naivasha is the most affected, with flower farms being the greatest threat to the ecosystem in addition to hotels and the poor sewerage system for Naivasha town. Maasai Mara is also threatened with the number of hotels and roads crisscrossing the National Reserve. Kenya Wildlife Service has tried to intervene to ensure the park has a master plan and effective control of the structures erected.

Fragmentation, isolation of ecosystems

Illegal encroachment on habitats is leading to their fragmentation, as noted in the Mau Forest Complex. The Mau Forest Complex is now being transversed from all angles and looks fragmented – no longer a continuous block, because of human activities. The same phenomenon is being experienced in Dakatcha Woodland as the population grows and more land is opened up by slash and burn for agricultural production. The escalating fragmentation of these habitats is likely to affect the gene flow and lead to inbreeding in some species.

Siltation and Reduction of Water Levels

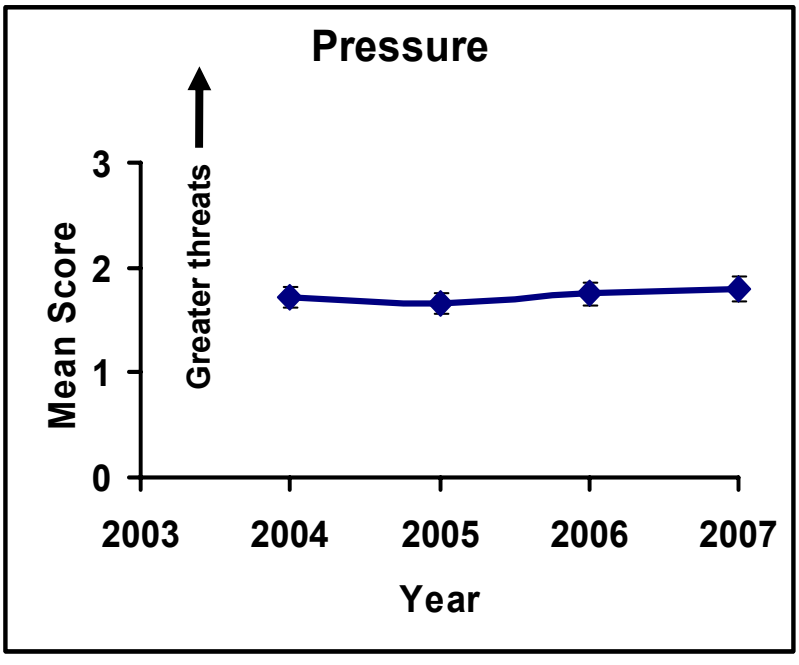
Fast-moving sediment loads arising from catchment areas where vegetation has been cleared is causing a lot of siltation in many wetland IBAs (12 out of the 35 protected IBAs). Lake Naivasha is under severe siltation, which increased since the 1980s with the loss of papyrus swamps, while irrigation has seen water levels drop by 3 metres. Similarly, Lake Baringo has witnessed severe siltation in the past 10 years as a result of the destruction of forests in its watershed and increased agricultural activities. Lake Victoria wetland IBAs are also suffering increasing siltation rates arising from clearing of vegetation in catchment areas and papyrus harvesting in riparian areas. Water abstraction was reported in 15 out of the 35 protected IBAs. Land in the highlands is cleared to cultivate food and cash crops, leaving downstream communities and ecosystems with a deficit.

Pollution

Pollution from large-scale flower farms is increasingly causing havoc on Lake Naivasha, the major fresh water lake in the eastern Rift Valley. The lake's ecosystem has been adversely affected by agrochemicals used in the horticultural farms and increased human activity. There are high levels of cadmium metal from the run-off from flower farms and the town sewer. Pollution remains a major problem in Dunga on Lake Victoria. Flooding seasonal rivers are sweeping chemicals and plastic bags into Lake Nakuru because of limited capacity to control such pollution. Similarly in Yala swamp, there's pollution of the water arising from the Dominion Group of Companies projects. Pollution in the Tana Delta is expected to be a major issue if the controversial sugar cane projects by Mumias Sugar and TARDA and MAT International go ahead.

Trends in Pressure on Kenyan IBAs (n = 60)

Values plotted are mean scores with error bars representing ± 1 standard error.



Introduced Species

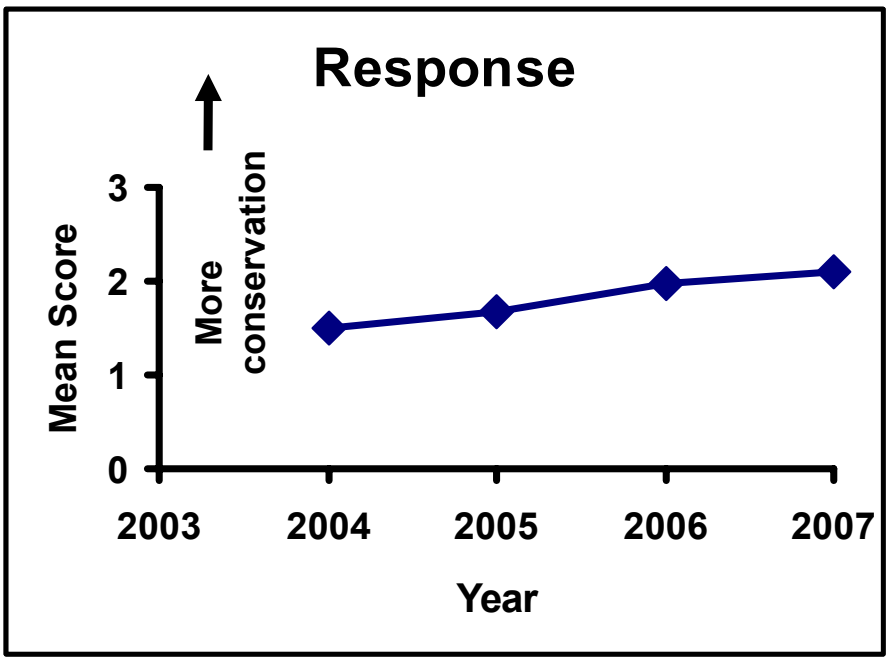
The biggest threats in most of the IBAs on Lake Victoria are the invasive plant species water hyacinth and now hippo grass. Lake Naivasha has been hit by another in a long list of invasive species, a fish (Common Carp *Cyprinus carpio*) that could drive out the other fish. There is very little knowledge and information on invasive species, and reporting on this threat is currently inadequate.

Responses: conservation action in IBAs

Following the recommendations made in the IBA Status and Trends report for 2006, various leading organizations were able to make very useful interventions and responses to avert negative trends in Kenya's IBAs. This led to the general increase in overall conservation status of the sites, as indicated in the response figure below. Some sites that scored low but positively in terms of conservation are Dakatcha Woodland, Sabaki River Mouth, Yala Swamp, Machakos Valleys, Tsavo East National Park, Samburu/Buffalo Springs and Maasai Mara National Reserves. Mau Narok/Molo grasslands recorded a reduction in terms of conservation action. Some key responses were:

- **Monitoring.** Kenya Wildlife Service (KWS) and Kenya Forest Service (KFS) have embraced IBA monitoring and field staff were trained, with 36 monitoring forms being returned to Nature Kenya and the National Museums of Kenya for analysis and reporting.
- **Forest Sector Reform**. The reforms at the Kenya Forest Service, though slow, are taking root. The Green Zones programme is facilitating forest rehabilitation in various natural forests in Kenya. The programme purchased vehicles and forest patrol equipment. This has helped to reduce illegal activities in a number of forest blocks in Kenya.
- **Participatory Forest Management (PFM)**. With the new Forest Act in place, there is a way forward to the management and conservation of forests in Kenya and mechanisms for community participation in natural resource management. PFM structures were established for some forest IBAs and some Site Support Groups (SSGs) applied to KFS to be considered for Participatory Forest Management (PFM) under the new Forest Act, enhancing communities' role in conservation.
- **Increased patrols**. In most of 2007 there were increased patrols by KWS and KFS rangers in most of the protected IBAs. As a result, the rate of commercial deforestation has gone down.
- **Charcoal**. Lifting of the ban on charcoal production and transport should lead to better forest resources management. The move follows introduction of new forest laws that allow individuals and communities to engage in legal charcoal business. Licensing will provide regulation in the utilization of forest produce while promoting conservation and sustainable production. Some rules are being developed by KFS on revenue sharing mechanisms to ensure the local communities feel part of the costs and benefits of forest management.
- **Sand harvesting, quarrying and corals**. To check the rapid environmental degradation caused by uncontrolled sand harvesting, quarrying and exploitation of corals along the coastline and other areas, NEMA is now issuing licenses to control these activities.
- **Mau Forest.** A concerted effort involving KWS, UNEP, KFS, Kenya Forests Working Group and Narok County Council has focused on Mau Forest Complex, with some evictions and boundary marking taking place. UNEP (United Nations Environment Programme) donated Ksh100 million towards the conservation of Mau Complex Forests, especially to plant trees. Mau Forest has also been discussed at the Cabinet level, though a legal discussion on the future of the forest has been affected by politics due to the 2007 elections.
- **Mount Elgon & Lembus Forest.** KFS is carrying out natural forest rehabilitation in Mt Elgon. IUCN, through support from NORAD, have supported programmes in Mt Elgon and Lembus forests, generating information for improved forest management.
- **Dakatcha Woodland.** CEPF provided support to initiate community action, and KFS sent a Forest Guard to Dakatcha Woodland after reports of massive destruction of the habitat. Logging and charcoal making continue, however.

Trends in Responses in Kenyan IBAs (n = 60)



• **Tsavo East NP.** The Management Plan for Tsavo East National Park is now in place.

• **Tour Guide Training**. KWS has been training tour drivers and guides on ethical guiding principles, including not harassing the rare species that tourists want to see.

• **Tourism Promotion**. KWS has broadened the taxonomic scope for marketing Kenya as a tourist destination to include birds and other smaller biodiversity outside the big five.

• **Education Programmes**. KWS enhanced education programmes within parks and reserves under its management.

• **Illegal transport of trees.** The provincial administration assisted by the police in Kilgoris are curbing illegal transportation of trees from and around the Maasai Mara National Reserve.

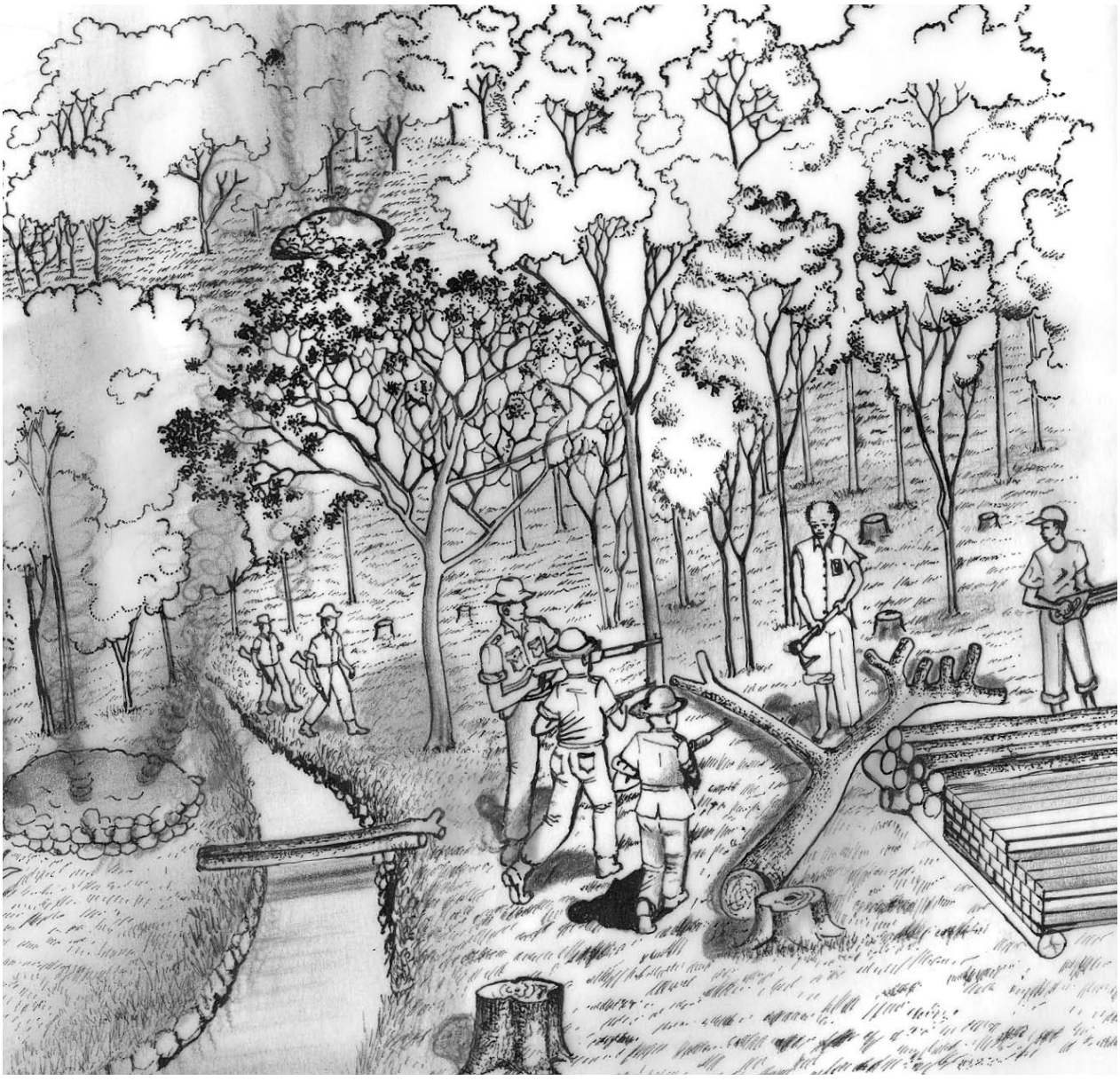
• **Tree planting.** A tree planting campaign to restore destroyed animal habitat was initiated in the Trans-Mara by the District Commissioner.

• **Lake Nakuru NP.** KWS planned to relocate some herbivores from Lake Nakuru National Park to ease pressure on pasture.

• **Yala Swamp**. The local people have realized that the reclamation project by the Dominion Group of Companies may not deliver the promised benefits, and their support for the project is waning.

• **Donor Response.** RSPB, BirdLife, USAID, KNH, NABU, IUCN, UNDP-GEF, DFID, EU, DANIDA-DOF and the Darwin Initiative, among others, supported monitoring, management planning, education, awareness, advocacy and livelihood improvements in IBAs.

• **Collaborative Action.** Nature Kenya, in collaboration with government agencies, promoted community-based conservation at 17 sites: Arabuko-Sokoke Forest, Mida Creek, Gede Ruins, Sabaki River Mouth, Dakatcha Woodland, Tana River Delta, Kikuyu Escarpment Forests, Kinangop Grasslands, South Nandi and North Nandi Forests, Mount Kenya, Mukurwe-ini valleys, Kakamega Forest, Dunga Swamp, Yala Swamp and Cherangani Hills.



Recommendations

Based on the information and data received in 2007, the following recommendations are made to reverse the rate of biodiversity loss in Kenya's Important Bird Areas:

Re-consider the promotion of bio-fuel crops

- Re-consider the promotion of biofuel crops. Biofuel crops often require **more** energy than they provide, and are grown on land that could grow food or protect biodiversity essential for the future of humankind. In addition, many biofuel projects in Kenya have failed in the past, due to inadequate information about the crop, the fuel, the production, marketing, etc.
- Re-consider the Tana Integrated Sugar Project (TISP) and other projects to grow irrigated sugar cane in the Tana River Delta in view of the environmental costs of the projects and the benefits that accrue from the present mix of farming, pastoralism and tourism.

Reform the EIA process in Kenya to take greater account of biodiversity

- Promote less subjective reports in the review being undertaken. Natural resources and processes, and in particular biodiversity, should be assessed at their true value in terms of ecological services to the nation and the planet.
- Require an Environmental Impact Assessment (EIA) for any development within or bordering Important Bird Areas.

Develop new systems for enhancing the protected areas network

- Establish Community Conserved Areas (CCAs) and empower communities to protect and restore water sources, fragile ecosystems and cultural sites.
- Enforce any legal provisions for unprotected IBAs hosting rare or endangered wildlife.
- Develop action plans for Protected Areas and IBAs and ensure effective implementation. For Protected Areas that already have action plans, liaise with partners and donors to find ways of implementing them.
- Encourage collaboration among stakeholders to prevent blockage of wildlife dispersal corridors by human development activities.
- Develop a Conservation and Development Master Plan for the Tana River Delta to allow and regulate multiple use of this national asset.
- Advocate that the northern tip of Lake Natron within Kenya be designated a Ramsar site.
- Consider designating currently unprotected IBAs such as Busia Grasslands, Kinangop Grasslands, Yala Swamp, Dunga Swamp, Sabaki River Mouth, Tana River Delta and Dakatcha Woodland as Community Conserved Areas, managed by the people for the people.
- Consider designating the central part of the Mau Forest Complex as a National Park, as was done for the main Mount Kenya forests.

Develop and implement models for habitat restoration

- Implement the restoration of degraded forests by replanting indigenous species, and avoid planting eucalyptus near water sources and delicate riparian ecosystems.
- Invest in national tree planting campaigns to re-introduce and nurture the traditional species that preserved and protected our land.
- Revitalise Agricultural Extension Services to help farmers make better use of existing land rather than clearing natural vegetation.

continued on next page

• Conserve soil and water by promoting afforestation along streams with indigenous tree species and on farms with agro-forestry trees and shrubs.

• Develop sustainable dryland forest resource management, including regulation and sustainable production of charcoal, gums and resins, short rotation timber, essential oils, bio-diesel, tree fodder, carvings and basketry.

• Investigate sources of water pollution and find solutions to impacts of pollution.

• Take effective action to respond to climate change, including adoption of sustainable forest management, carrying out small and large scale reforestation and afforestation projects, and making use of carbon trading opportunities.

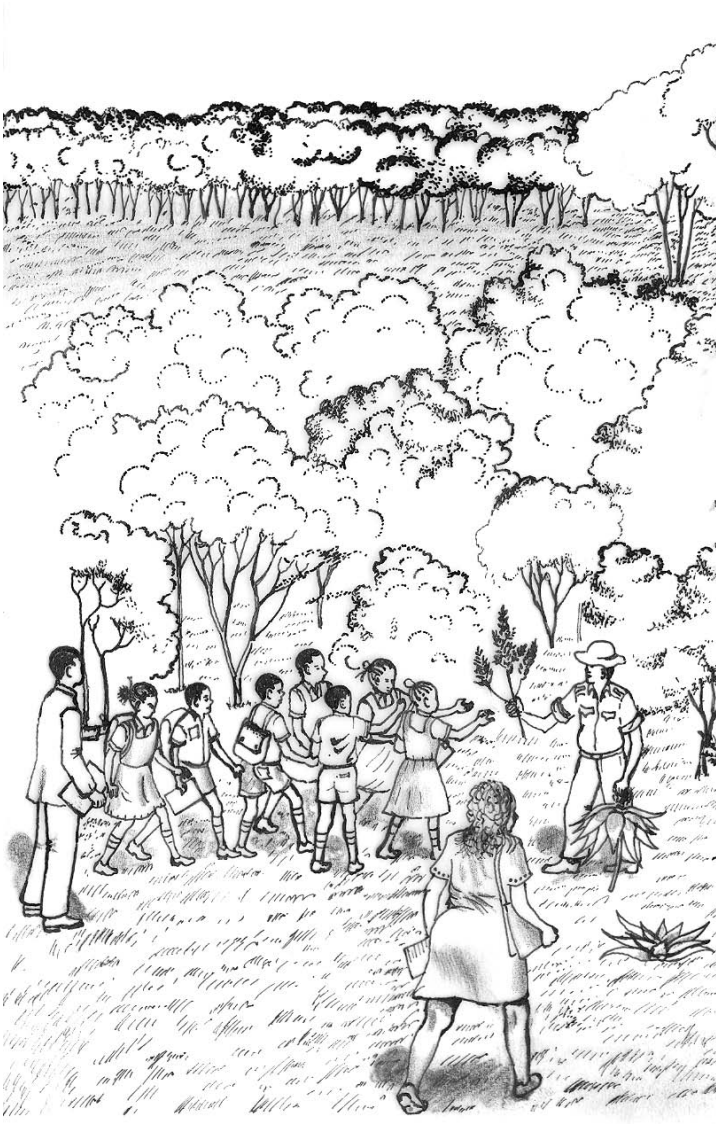
• Recognize and respect the boundaries of areas set aside for the national good, such as parks, reserves, forests and other protected areas. If necessary, educate and inform the local people, the provincial administration and other Government institutions on the need to respect these boundaries.

• Carry out detailed cost-benefit analyses to ensure that any agricultural expansion is well planned, impacts are assessed, mitigation measures are developed and projects that threaten biodiversity are dropped.

Develop incentives for public participation in Protected Areas Management

• Implement laws that provide for participatory natural resources management

• Use government funding including CDF and LATF to initiate Nature Based Enterprises (NBEs) including beekeeping and tree growing



• Locate new tourist infrastructure developments outside designated protected area boundaries.

• Promote conservation awareness in unprotected IBAs.

Enhance institutional and public participation in IBA monitoring

• Encourage all stakeholders to increase their participation in IBA monitoring. In future, monitoring data should be handed in before the month of November.

• Train more people on monitoring techniques and in how to fill the basic monitoring forms, to improve the quality of data gathered.

• Build monitoring capacity for local communities neighbouring IBAs.

• Review the boundaries of certain unprotected IBA such as Kianyaga Valleys, since populations of Hinde's Babbler were found outside the current IBA boundary.

• Initiate fact finding missions by members of IBA-NLC institutions to less-visited IBAs to generate up to date information about the conservation status of these IBAs, their species and habitats, as well as helping to identify local contacts on the ground for future monitoring.

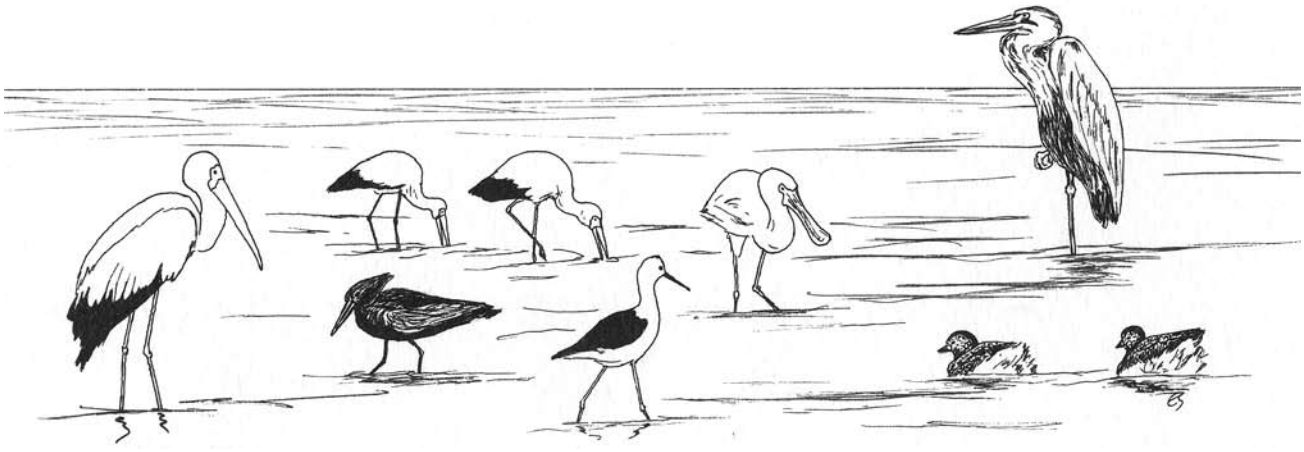
Recommendations for National Managing Institutions and Non-government organizations

Kenya Forest Service:

- Streamline the process of engaging Community Forest Associations (CFAs) in forest conservation and provide guidelines to reduce misdirected efforts.
- Prioritise opportunities for communities to benefit from selling carbon credits and find markets as incentives for forest conservation.
- Seek to increase revenue for conservation work by finding opportunities to receive payment for ecosystem services.
- Finalize Participatory Forest Management (PFM) guidelines
- Review the boundaries of forest Important Bird Areas and Key Biodiversity Areas with a view to clearly marking them and acquiring title deeds.
- Initiate a comprehensive assessment and inventory of the biodiversity found in each forest, prioritizing the biodiversity-rich forests; and creating web and GIS enabled databases of these forests.
- Increase resource allocation (especially financial) towards forest rehabilitation.
- Develop forest-specific Management Plans, prioritizing biodiversity-rich forests.
- Review regulations to support sustainable charcoal production.
- Encourage data collection from sites where data has previously not been received.
- Liaise with Local Government to undertake a rapid assessment of biodiversity-rich trust lands experiencing high biological resource degradation, with a view of taking concerted action at a local level, using the provisions of the Environmental Management and Coordination Act (1999) and Forest Act (2005).
- Keep other stakeholders informed of initiatives taking place at various IBAs.

Kenya Wildlife Service:

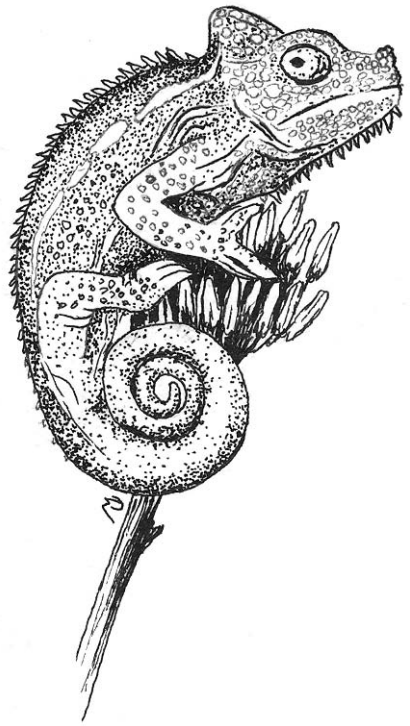
- Enhance collaboration with local communities around national parks and reserves.
- Develop policies and actions for sustainable use and conservation of Kenya's wetlands.
- Fast-track consultative development of Management Plans for implementation at national parks and reserves.
- Liaise with Local Government to undertake a rapid assessment of biodiversity-rich trust lands experiencing high biological resource degradation, with a view of taking concerted action at a local level.
- Promote tourism activities such as bird-watching at all IBAs, ploughing back revenue for conservation action at site level.
- Undertake branding of IBAs as sites of significance to tourists as part of tourism promotion efforts.



• Encourage data collection in areas where forms have not been returned in the previous years.
• Initiate a comprehensive assessment and inventory of the biodiversity found in national parks and reserves, prioritizing the biodiversity-rich ones; and creating web and GIS enabled databases of these parks and reserves.
• Keep other stakeholders informed of initiatives taking place at various IBAs.

National Museums of Kenya

• Carry out inventories at IBAs.
• Identify and survey new potential IBAs.
• Coordinate data storage, analysis and reporting to all stakeholders.
• Share the data and monitoring results and reports with all agencies and civil society.
• Fast-track designation of qualifying Kaya forests as National Monuments, and strengthen existing management structures.
• Train government staff and Site Support Groups on the details of monitoring.
• Enable free access to biological information, especially species distributions, for national use in conservation work.
• Keep other stakeholders informed on inititatives taking place at various IBAs.



National Environment Management Authority (NEMA)

• Liaise with Local Government to undertake a rapid assessment of biodiversity-rich trust lands experiencing high biological resource degradation, with a view of taking concerted action at a local level, using the provisions of the Environment Management and Coordination Act (1999).

• Streamline the EIA process as follows:

1. Increase transparency in process of responding to EIA licence applications; reviewing EIA study reports; and approving, questioning or rejecting EIAs. This includes (but is not limited to):

• listing all projects under review and slated for review on the website;

• making EIAs readily available to stakeholders; and

• giving full reasons for decisions to approve or reject a project's EIA in a public forum (such as the website and an advertisement).

This will "level the playing field" for investors and stakeholders alike.

2. Provide more training, equipment and funding to the EIA and Audit process. This includes (but is not limited to):

• technical backup to maintain an effective website where documents can be easily downloaded; and

• access to committees of experts in natural and social sciences.

3. Consider the welfare of all Kenyans and give support and backup to NEMA staff, even when a decision against an investment is made.

4. Enact regulations that require any project that falls within the Second Schedule of EMCA to carry out an EIA, whether the Director-General has replied to the application or not.

5. Put administrative mechanisms or checks and balances in NEMA to make sure that the Director-General replies to all applications. Allow the Director-General to extend the wait period for 30 more days (in the letter of reply) if he requires more time to read through a backlog of applications.

6. Enact regulations to require the project proponent to submit the project proposal, funds to pay for the EIA and a list of suggested experts to NEMA. Then NEMA to commission one of the experts and pay them for the EIA report.

7. Enact regulations to require NEMA to announce

the project, the chosen EIA experts, and where to get the details in a short press advertisement. The ad to give the link to the relevant pages of the NEMA website. The NEMA website to have a list of all projects that will be reviewed, and PDF files of project proposals and completed EIAs.

8. Require EIA consultants to employ the services of qualified biodiversity scientists (botanists, zoologists, etc.), or seek the written opinion of recognized and respected conservation organizations; the same to apply in the area of culture. Alternatively, the consultants to be required to consult a committee of experts with a broad range of expertise who can be called on to look at certain aspects of an EIA, and determine whether it meets the minimum standards required of an environmental, social or health description of the issues and impacts.

9. Put in place mechanisms to compensate conservation organizations, cultural entities or committees of experts who spend time responding to EIA questions or review EIA documents, at a set and standard fee.

10. Announce public and stakeholder consultations widely and in good time, and allow those wishing to come but not invited to attend at cost.

11. Record and report public and stakeholder comments in good time. The work of the consultants should not be finished until stakeholders' comments have been appended to the study report.

12. Consider the EIA/ESIA guidelines and procedures of the East African Community to see if they are applicable. If there are contradictions between the regional and national guidelines, the two may need to be harmonized.

13. Request consultants not to say whether the project should go ahead or not. Consultants instead be requested to list all the positive and negative impacts and mitigation measures for NEMA and its advisors to make the decision.

14. Make any and all EIA reports (full reports, NOT summaries) available to the public as:

i) PDF files of each chapter which can be downloaded from the NEMA website

ii) Plus any or all of the following:

- Published by the Government Printer
- Photocopies made available at cost on demand
- Copies deposited in several main centres in addition to NEMA headquarters, such as National Museum Library in Nairobi and NEMA offices in relevant districts.

15. Make results or summaries of Environmental Audits available as in 14 above.

16. Vest the final decision for approving, questioning or rejecting an EIA in an Approving Committee coordinated by NEMA. The Approving Committee to draw membership from stakeholders as well as experts. Such a Committee does not necessarily require a change in the Act; the Committee can be established in subsidiary legislation to advise the Director-General. However, it requires facilitation, funding and good will from the Government.

17. Announce the decision approving, questioning or rejecting an EIA in a public forum such as the NEMA website and a newspaper advertisement, with full reasons given.

18. Establish mechanisms to follow up the implementation of mitigation measures by the project. This will again need support, training and funding from the Government; and an open and transparent manner of operation. For example:

- A list of the mitigation measures approved for any project to be available on request, either by downloading from the website or as photocopies.
- Environmental Audits to include audits of all mitigation measures for projects and programmes approved by NEMA.
- Committee of experts to do occasional spot audits.

Nature Kenya and other NGOs

- Advocate for investment by other organizations taking part in conservation work, and mobilize resources to support actions at IBAs.
- Lead in facilitation of training in biodiversity monitoring for staff of various institutions.
- Initiate evaluation and re-evaluation of IBAs.
- Strengthen liaison with other organizations and institutions working in IBAs.
- Create a communication structure with local government to influence resource allocation at trust lands that are IBAs.
- Enhance community sensitization on value and conservation of IBAs.
- Advocate for government to increase allocation of resources to conservation.
- Advocate for sound conservation and development linkages at local, national and international levels.
- Facilitate joint communiqués by IBA-NLC on developments that are likely to have major negative impacts on IBAs.

Annex 1 Basic Monitoring Form

Monitoring Important Bird Areas in Kenya

Help to monitor IBAs — key sites for biodiversity conservation!
Please answer the questions below:

- **Give details wherever possible**
- Return a completed form once a year if you are resident at a site or a regular visitor
- Reports from any visit to an IBA are helpful. Please fill in relevant information any time.
- Consider making use of sketch maps as an additional means of recording key results. For example, use sketch maps to show the precise location & extent of threat, sighting of key species, extent of particular habitats, routes taken and area surveyed, etc.
- Return the completed form to the contact person at Ornithology Section, NMK or Nature Kenya

Part I: ESSENTIAL INFORMATION **(please use a different form for each site).**

Name of the IBA_____ Date_____

Your name_____

Postal address_____

Telephone/fax_____email_____

What area does this form cover? (tick one) ____ (a) The whole IBA or ___(b) Just part of the IBA?
If (b), which part / how much of the whole area?

Do you live at or around the IBA? ____(a) Yes ____(b) No
If (b) when did you visit the IBA and for how long?

What was the reason for your visit(s)?

Part II: MONITORING THE IBA

Answer all the questions as much as you can and fill in all the tables (i.e. provide sufficient information)
Please attach or send more sheets or other documents or reports as necessary.

Note: Guidelines on how to fill the table on the next two pages is provided at the end of this form

For more information, please contact **Nature***Kenya* - The East Africa Natural History Society
P. O. Box 44486, 00100 Nairobi, Kenya Tel: (020) 3749957 / 3746090
Or by E-mail: office@naturekenya.org

THREATS TO THE IBA ('PRESSURE')

General comments on threats to the site and any changes since your last assessment (if relevant):

THREAT TYPES	Score			Details
	Timing	Scope	Severity	
1. **Agricultural expansion & intensification** Give details of specific crops, e.g. oil palm, or animals, e.g. cattle				
Annual crops - shifting agriculture				
Small-holder farming				
Agro-industry farming				
Perennial non-timber crops Small holder plantations				
Agro-industry plantations				
Wood & pulp plantations Small-holder plantations				
Agro-industry plantations				
Livestock farming & ranching – Nomadic grazing				
Small-holder grazing, ranching or farming				
Agro-industry grazing, ranching or farming				
Marine & freshwater aquaculture, Subsistence/ or artisanal aquaculture				
Industrial aquaculture				
2. Residential & commercial development Give details of type of development & issue				
Housing & urban areas				
Commercial & industrial areas				
Tourism & recreation areas				
3. Energy production & mining Give details of specific resource & issue				
Oil & gas drilling				
Mining & quarrying				
Renewable energy				
4. Transportation & service corridors Give details of specific type of transport & issue				
Roads & Railroads				
Flight paths				
Shipping lanes				
5. Over-exploitation, persecution & control of species Give details of issue				
Direct mortality of 'trigger' species (those species for which the site is recognized as an IBA) hunting & trapping				
Persecution or control				
Indirect mortality (bycatch) of 'trigger' species- hunting				
fishing				
Habitat effects – gathering plants				
logging				
Fishing & harvesting aquatic resources				
6. Human intrusions & disturbance Give details of specific activity & issue				
Recreational activities				
War, civil unrest & military exercises				
Work & other activities				
7. Natural system modifications Give details of the alteration & issue				
Fire & fire suppression				
Dams & water management and/or use				
Other ecosystem modifications				
8. Invasive & other problematic species & genes Give details of invasive or problematic species & issue				
Invasive alien species				
Problematic native species				
Introduced genetic material				

THREAT TYPES	Score			Details
	Timing	Scope	Severity	
9. Pollution Give details of pollutant, source if known (e.g. agricultural, domestic, industrial) & issue				
Domestic & urban waste water				
Industrial & military effluents				
Agricultural & forestry effluents & practices				
Garbage & solid waste				
Air-borne pollutants				
Noise pollution				
10. Geological events Give details of specific event and issue				
Volcanic eruptions				
Earthquakes and tsunamis				
Landslides				
11. Climate change & severe weather Give details of specific event and issue				
Habitat shifting & alteration				
Drought				
Floods				
12. Other: If the threat does not appear to fit in the scheme above, give details here of the threat, its source if known and how it's affecting the IBA				
1				
2				
3				

BIRD POPULATIONS AND HABITATS ('STATE')

General comments on condition of the site and any changes since your last assessment (if relevant):

If you have **estimates or counts of bird populations**, or other information on the important bird species at the IBA, please summarise these in the table below:

Bird species or groups	Population estimate (Pairs or individuals)	Details or other comments

If you have information on the **area** of the natural habitats important for bird populations at the IBA, please summarise it below. Please note any major changes since the last assessment in the 'details' column.
Habitat area codes: Choose from:
Good (overall >90% of optimum), Moderate (70–90%), Poor (40–70%) or Very Poor (<40%)
If you do not know the actual habitat area, give your best assessment of the current habitat area at the site, in relation to its potential optimum if the site was undisturbed. The percentages are given as guidelines only: use your best estimate. Please justify your coding in the 'details' column.

Habitat	Current area (area code) if known (Include units e.g. ha, km^2)	Details / comments / changes

If you have information on the **quality** of the natural habitats important for bird populations at the IBA, please summarise it below. Please note any major changes since the last assessment in the 'details' column.
Habitat quality rating: Choose from
Good (overall >90% of optimum), Moderate (70-90%), Poor (40-70%) or Very Poor (<40%).
Give your best assessment of the average habitat quality across the site, in terms of its suitability for the important bird species. The percentage ranges relate to the population density of the 'trigger' species in its key habitat. Thus 100% means that the species is at carrying capacity in its habitat. The percentages are given as guidelines only: use your best estimate. Please justify your selection in the 'details' column.

Habitat	Quality rating	Details / comments / changes

CONSERVATION ACTIONS TAKEN AT IBA ('RESPONSE')

General comments on actions taken at the site, including recent changes or developments:

Please tick the space next to the text that applies for each of conservation designation, management planning and conservation action below. Please add any details and where appropriate give a brief explanation for your choice.

CONSERVATION DESIGNATION

___Whole area of IBA (>90%) covered by appropriate conservation designation
___Most of IBA (50–90%) covered (including the most critical parts for the important bird species)
___Some of IBA covered (10–49%)
___Little or none of IBA covered (<10%)
Details and explanation

MANAGEMENT PLANNING

___A comprehensive and appropriate management plan exists that aims to maintain or improve the populations of qualifying species
___A management plan exists but it is out of date or not comprehensive
___No management plan exists but the management planning process has begun
___No management planning has taken place
Details and explanation

CONSERVATION ACTION

___The conservation measures needed for the site are being comprehensively and effectively implemented
___Substantive conservation measures are being implemented but these are not comprehensive and are limited by resources and capacity
___Some limited conservation initiatives are in place (e.g. action by Local Conservation Groups) Very little or no conservation action is taking place
Details and explanation

PART III: INFORMATION ON PEOPLE, INSTITUTIONS AND ACTIVITIES

Please record any details of Local Conservation Groups (LCGs) (e.g. Site Support Groups (SSGs), Caretaker Groups) established at the site in the table below.

LCG name	Number of members	Male members	Female members	Other information

ACTIVITIES UNDERTAKEN AT THE IBA

In the table below, please indicate the activities undertaken by any of the LCG, other CBO, the BirdLife Partner, Government agencies or other organisations or people at the IBA. This should include current activities, and activities carried out in the last four years. **Notes on action types**

1. **Land and water protection** Actions to identify, establish or expand parks and other legally protected areas.
2. **Land and water management** Actions directed at conserving or restoring sites, habitats and the wider environment.
3. **Species management** Actions directed at managing or restoring species, focused on the species of concern itself.
4. **Education & awareness** Actions directed at people to improve understanding and skills, and influence behaviour
5. **Law & policy** Actions to develop, change, influence, and help implement formal legislation, regulations (including at the community level), and voluntary standards.
6. **Livelihood, economic & other incentives** Actions to use economic and other incentives and to influence behaviour.
7. **External capacity building** Actions to build infrastructure resulting in better conservation, including through civil society development (e.g. enhancing community role in decision-making on natural resource use).

Action type	Action undertaken by:					Details
	LCG	Other CBO	Birdlife partner	Government	Other (specify)	
1. Land / water protection						
Site or area protection						
Resource & habitat protection						
2. Land & water management						
General site or area management						
Invasive or problem species control						
Habitat or natural process restoration						
3. Species management						
General species management						
Species recovery						
Species (re)introduction						
4. Education & awareness						
Formal education						
Training						
Awareness, publicity, communication						
5. Law & policy						
Public legislation						
Policies and regulation						
Private sector standards & codes						
Compliance, enforcement & policing						
6. Livelihood, economic & other incentives						
Linked enterprises & livelihood alternatives (e.g. ecotourism)						
Substitution (alternative products to reduce pressure)						
Market forces (e.g. certification)						
Conservation payments						
Non-monetary values (e.g. spiritual, cultural)						
7. Capacity building						
Institutional & civil society development						
Alliance and partnership development						
Conservation finance						
8. Other (e.g. surveys, monitoring, research, EIAs)						
1						
2						
3						

PART IV: ADDITIONAL INFORMATION

Please give any further information or details that you think may be helpful. For example:
Number of conservation staff and volunteers Number of visitors Revenue generated
Interesting bird records Lists or details of other fauna or flora
Useful contacts (for research or conservation projects, tourism initiatives etc.) Other notes.
Please attach or send more sheets or other documents/reports as necessary.

Thank you for taking the time to fill in this form!

Guidelines for filling the table of threats to IBAs

To score the threats to IBA table (on second page of Monitoring Form)

Please score each threat that is relevant to the important birds and habitats at the IBA. Threats should be based on your observations and information, and scored for Timing, Scope and Severity. In the 'details' column, please explain your scoring and make any other comments. Please note any changes in individual threats since the last assessment. If threats apply only to particular bird species, please say so.

To scores for Timing, Scope and Severity. The numbers are there to help you score, but are intended as guidance only. You don't need exact measurements to assign a score. For scoring combined threats, Timing, Scope & Severity scores should either be equal to or more than the highest scores for individual threats; scores cannot be less than those allocated to individual threats.

Timing of selected threat	**Timing score**
Happening now	3
Likely in short term (within 4 years)	2
Likely in long term (beyond 4 years)	1
Past (and unlikely to return) and no longer limiting	0

Scope of selected threat	**Scope score**
Whole area or bird population (>90%)	3
Most of area or bird population (50-90%)	2
Some of area or bird population (10-50%)	1
Small area or few individual birds (<10%)	0

Severity of selected threat	**Severity score**
Rapid deterioration (>30% over 10 years or 3 generations whichever is longer)	3
Moderate deterioration (10–30% over 10 years or 3 generations)	2
Slow deterioration (1–10% over 10 years or 3 generations)	1
No or imperceptible deterioration (<1% over 10 years)	0

1. **Agricultural expansion & intensification** Threats from farming and ranching as a result of agricultural expansion and intensification, including silviculture, mariculture and aquaculture. Note that wood and pulp plantations include afforestation, and livestock farming and ranching includes forest grazing. Agricultural pest control and agricultural pollution-specific problems apply to 5. Overexploitation, persecution & control' and 'Pollution' respectively, apply to 9

2. **Residential & commercial development** Threats from human settlements or other non-agricultural land uses with a substantial footprint; resulting in habitat destruction and degradation, also causing mortality through collision. Note that domestic or industrial pollution-specific problems apply to 9.

3. **Energy production & mining** Threats from production of non-biological resources; resulting in habitat destruction and degradation, also causing mortality through collision. Note that renewable energy includes windfarms.

4. **Transportation & service corridors** Threats from long narrow transport corridors and the vehicles that use them, including shipping lanes and flight paths; resulting in habitat destruction and degradation, erosion, disturbance and collision.

5. **Over-exploitation, persecution & control** Threats from consumptive use of wild biological resources including both deliberate and unintentional harvesting effects; also persecution or control of specific species. Note that hunting includes egg-collecting, gathering includes firewood collection, and logging includes clear cutting, selective logging and charcoal production.

6. **Human intrusions & disturbance** Threats from human activities that alter, destroy and disturb habitats and species associated with non-consumptive uses of biological resources.

7. **Natural system modifications** Threats from actions that convert or degrade habitat in service of managing natural or semi-natural systems, often to improve human welfare. Note that 'other ecosystem modifications' includes intensification of forest management, abandonment of managed lands, reduction of land management, and over grazing. 'Dams & water management/use' includes construction and impact of dykes/dams/barrages, filling in of wetlands, groundwater abstraction, drainage, dredging and canalisation.

8. **Invasive & other problematic species & genes** Threats from non-native and native plants, animals, pathogens and other microbes, or genetic materials that have or are predicted to have harmful effects on biodiversity (through mortality of species or alteration of habitats) following their introduction, spread and/or increase in abundance.

9. **Pollution** Threats from introduction of exotic and/or excess materials from point and non-point sources causing mortality of species and/or alteration of habitats. Note that domestic and urban waste water includes sewage and run-off; industrial and military effluents includes oils spills and seepage from mining; agricultural and forestry effluents and practices includes nutrient loads, soil erosion, sedimentation, high fertiliser input, excessive use of chemicals and salinisation; and air-borne pollutants includes acid rain.

10. **Geological events** Threats from catastophic geological events that have the potential to cause severe damage to habitats and species.

11. **Climate change & severe weather** Threats from long-term climatic changes which may be linked to global warming and other severe climatic/weather events.

Annex 2 Pressures and Threats on IBAs in 2007

Site Code	Site Name	Destructive Tourism Activities	Fires	Invasive /Exotic Species	Illegal Fishing Methods/Overfishing	Overgrazing/Illegal Grazing	Human-Wildlife Conflict	Habitat Degradation by Wildlife	Water Abstraction	Human settlements/Urbanization	Infrastructure development	Pollution	Firewood Collection	Siltation/Soil Erosion	Eutrophication	Diseases/Toxins	Wetland Drainage/Filling	Illegal logging /Vegetation Destruction	Natural Events	Charcoal Burning	Agriculture encroachment/Illegal cultivation	Illegal hunting/Poaching/Trapping	Egg collection	Medicinal Plant collection	Road Accidents	Blocking of Migration Corridors	Destructive Mining Activities	Military Activities	Total
1	Aberdares (Nyandarua) Mts		F	F	K	K	X	X	K	X			F				K	K	K		K								13
2	Kianyaga Valleys								X	X			X								X								4
3	Kikuyu Escarpment Forest						X		F	X			X					X			X								6
4	Kinangop Grasslands		F			X				X	X										X								5
5	Mt. Kenya Nat'l Pk & Res	X	F		K	K			K	K		X	F					F		F	K		F						12
6	Mukurwe-ini Valleys		X	X									X								X								4
7	Arabuko-Sokoke Forest	K	F					F					K					F	F	X	X	X							9
8	Dakatcha Woodlands					X				X			X					X		X		X							6
9	Diani Forests	X	X							X								X				X							5
10	Dzombo Hill Forest																				X								1
11	Gede Ruins Nat'l Mon.	F				F							F								X								4
12	Kaya Gandini																	X			X								2
13	Kaya Waa									X																			1
14	Kisite Island	X			X													X					X						4
15	Kiunga Marine Nat'l Res	K									K	X						K	X		X								6
16	Mida Cr, Whale Is, Malindi/Watamu	K		K	K	K			K	K			K				K				K								9
17	Marenji Forest																	X		X		X							3
18	Mirima Hill Forest									X			X					X				X							4
19	Sabaki River Mouth	X	X	X	X					X		X					X			X	X						X		10
20	Shimba Hills		K	X			X	X		K		X	K					K			X	X					K		11
21	Taita Hill Forests			X		X	X				X		X					X			X	X		X					9
22	Tana River Delta			K	X	K			K	X	X	X	X	X	X		K	X			X	X							14
23	Tana River Forest			X		K			X			X	X							X	X								7
24	Tsavo East National Park	K	K		K	K			K	K			K				K	K	K		K	X				K			13
25	Tsavo West National Park	K	X	X		K							K				K	K		X		X							9
26	Chyulu Hills Forests		K			K			K				K	X				K		X		X		K					9
27	Dida Galgalu Desert																												N
28	Lake Turkana			X	X	X							X						X										5
29	Machakos Valleys					X				X			X	X							X						X		6
30	Masinga Reservoir				X									X	X														3
31	Meru National Park	K	X		K	K			X				X			X					X			X					9
32	Mwea National Reserve				K			X		X			X	X				X											6
33	Samburu, Buffalo Spring NR	X		X		X		X					X	X				X	X										8
34	Shaba National Reserve	X				X							X							X							X		5
35	Dandora Ponds			X																									1
36	Nairobi National Park	K	K			X	X			X		X		X						X						X	K		10
37	Dunga Swamp	K	X	X	X	X				K	X	X					K	K	X		X								12
38	Koguta Swamp					X						X						X			X								4
39	Kusa Swamp		X			X				X		X		X				X			X								7
40	Ruma National Park		K			K			K	X	X		K	K				K		K	K	K							11
41	Yala Swamp		X		X	X				X		X	X	X			X	X			X								10
42	Amboseli National Park	K				K		K	K				K	K			K		K	K	K								10
43	Cherangani Hills					X				X			X	X				X		X	X								7
44	Lake Baringo	X		X	X	X			X					X					X	X	X								9
45	Lake Bogoria Nat'l Res	X	X	X		X			X					X		X		X	X		X	X							11
46	Lake Elmentaita					X				X			X	X				X		X							X		7
47	Lake Magadi											X																	1
48	Lake Naivasha			X	X				X	X		X		X	X			X			X					X			10
49	Lake Nakuru National Park	K	K	X				K		K		X	K	K	X							X							10
50	Masai Mara National Reserve	K	K	K	K	K	X		K	K		K	K	X			K	K		K	K	X		K		X	K		19
52	Mau Forest Complex		F	F		F			F	X		X	F	X	X			F		X	X								12
52	Mau Narok/Molo Grasslands		X			X			X	X			X								X								6
53	North Nandi Forest		F	X		F				F			F					F		X	F								8
54	Ol Donyo Sabache					X							X																2
55	South Nandi Forest		X			F				X			X							X	X	X							7
56	South Nguruman					X				X																			2
57	Busia Grasslands		F	X		X				F							F	F			X								7
58	Kakamega Forest	K	F	K	K	F			K	K	X		X				F	K		F	K	K		X					15
59	Mt. Elgon		K			F	X		K	K			K	F			K	K			F	K							11
60	Sio Port Swamp									X		X						X											3
	Total	**21**	**27**	**22**	**17**	**38**	**7**	**7**	**20**	**35**	**7**	**17**	**37**	**20**	**5**	**2**	**13**	**36**	**10**	**20**	**38**	**18**	**2**	**5**	**0**	**4**	**7**	**0**	
	Percentages	**35**	**45**	**37**	**28**	**63**	**12**	**12**	**33**	**58**	**12**	**28**	**62**	**33**	**8**	**3**	**22**	**60**	**17**	**33**	**63**	**30**	**3**	**8**	**0**	**7**	**12**	**0**	

Members of Dakatcha Woodland IBA Site Support Groups, with reknowned bird guide David Ngala, monitor birds along a transect in the coastal woodland. Photo by Alex Ngari.