

**Applications Session**

Learning from concrete successes of sustainably financing protected areas

**Workshop 9**

Conservation Incentive Agreements

**Direct payments as a mechanism for conserving important  
wildlife corridor links between Nairobi National Park and its  
wider ecosystem:  
The Wildlife Conservation Lease Program**

**Dr. Helen W. Gichohi**  
African Wildlife Foundation

**Introduction**

Nairobi National Park is part of a much larger system comprising the Kitengela, the Athi and Kapiti plains to its south. The system, much smaller than it was at the turn of the century, is thought to have once contained the second largest migratory population after the Mara-Serengeti. The Athi-Kapiti plains comprise approximately 2,200 km<sup>2</sup> of open rolling land. Nairobi Park the only protected part of the system is a mere 114 km<sup>2</sup>. The park serves as a dry season concentration area for the major wildlife migrants that make up over 50 % of the total wildlife biomass of the park. The Park is fenced on three sides and only the southern boundary marked by the river Mbagathi is open and allows the continuing movement of wildlife to the wet season feeding areas in the South. The Kitengela to its immediate south measures 390 km<sup>2</sup> and is used seasonally but also has a resident population of many of the herbivores represented in the park.

Livestock and large numbers of wild herbivores dominate the Kitengela, with wildebeest and zebra constituting over half the total wildlife population. Other wildlife species in the area include the Coke's hartebeest, Grant's gazelle, Thomson's gazelle, impala, eland and giraffe. Rhino and buffalo occasionally wander from the park into the Kitengela. Predators such as lion, cheetah, leopards and hyena and a high diversity of birdlife are also present.

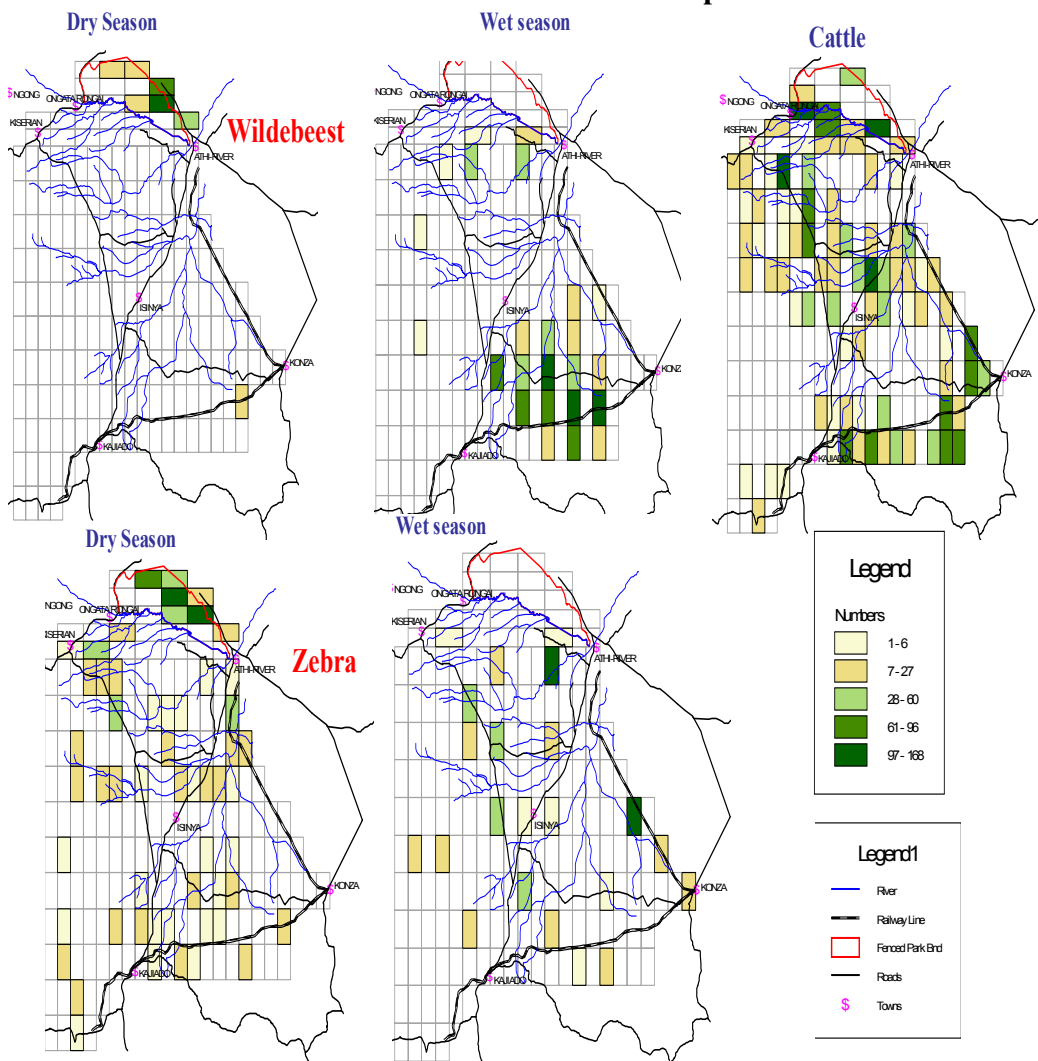
When the park was gazetted in 1946 it was immediately recognized that it was too small to meet the ecological requirements of the then large migratory wildlife. Kitengela plains and the Ngong Hills, which acted as drought refuge areas, were thus declared conservation areas, but unfortunately never gazetted.

Rapidly increasing human populations and changing socio-economic lifestyles leading to greater natural resource exploitation have been identified as the greatest threats to wildlife conservation within the rangelands the world over (WRI 1997, Ellis et al, 1999; Foran and Howden 1999). Within East Africa, changes in land policies and high human population growth rates coupled with rapid changes in people's expectations over the past few decades have resulted in the expansion of cultivation, growth in the number of permanent settlements, and urbanization and diversification of land-use activities around many conservation areas.

In the mid-sixties land privatization began for areas previously held as communal lands. The change in land policy from communal to group ranches was seen as a compromise between the government's preference for individual tenure and the production requirements of the semi-arid zones. These two

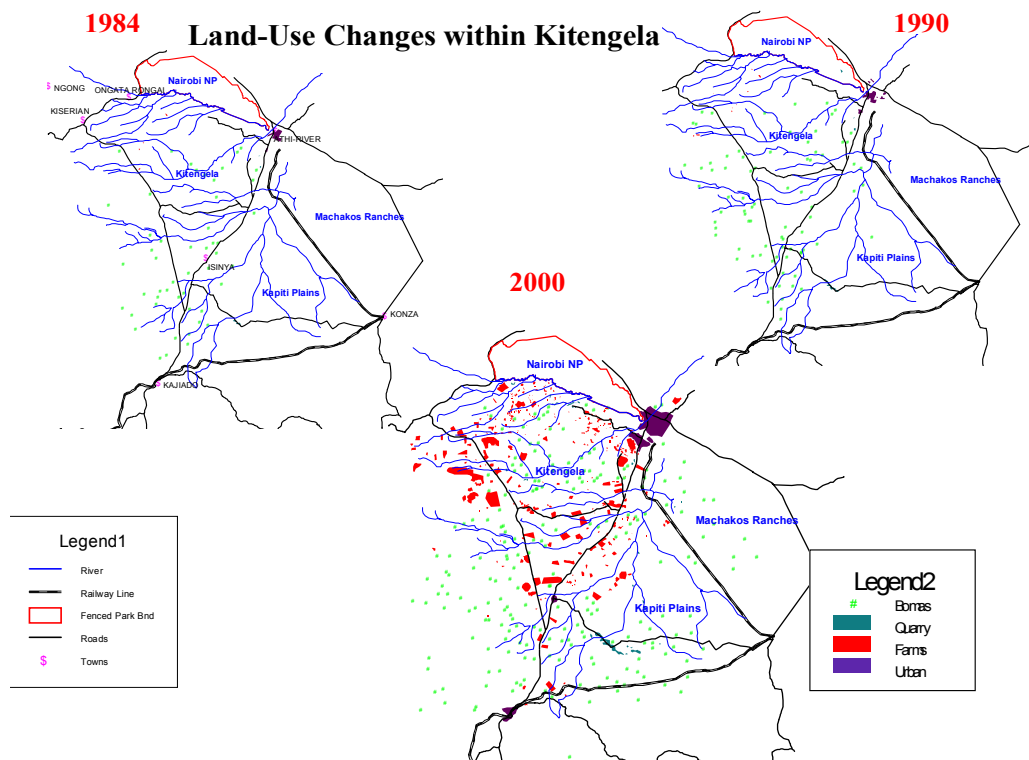
forms of tenure which provided for large land holdings allowed for the great mobility needed by wildlife and livestock in the East African savannas as well as their coexistence. However, the system failed to operate as expected and the Maasai owners began to push for sub-division. As a result the Kitengela group ranch measuring 18,292 with 214 registered members was subdivided in 1988 to individual landholdings (Kristjanson et. al. 2002). The subdivision has facilitated the rapid change in land with economic diversification from pastoral livestock to crop agriculture, quarrying and permanent settlement. In addition, its close proximity to the city of Nairobi has attracted industrialization (the development of the Export Processing Zone -EPZ) and an influx of non-maasai and increased the pressure for land for permanent settlement and speculation resulting in the rapid decrease in the per acre land holding. Consequences of these changes in land-use patterns include declining ecological, economic and social integrity of rangelands due to landscape fragmentation of landscape, declining rangeland productivity; diminishing wildlife migratory corridors, wildlife populations and diversity and cultural and economic diversification due to immigration (Gichohi et al. 1996).

### Wildlife/Livestock Movement within the Athi-Kapiti Plains



As in many wildlife landscapes in East Africa, the majority of wildlife is found outside PA boundaries where they spend significant portions of their annual seasonal cycles, on private or communal land. Most of the parks are therefore not ecologically viable in the absence of these dispersal areas, especially for species that require seasonal migrations (e.g. between calving and feeding grounds) to survive in large numbers.

Since the 1980s, vital wildlife areas of the Athi-Kapiti plains have progressively been partitioned and fenced off, reducing their accessibility to wildlife. Gichohi (1996) has reported that the area has experienced a substantial decline of wild herbivore populations, by approximately 50%, over the few years attributed largely to increasing human and livestock populations, changing land use, declining access to important resources and poaching. This reduction in wild herbivore numbers coupled with changes in distribution and use patterns have significant ecological impacts on the NNP and the entire ecosystem as is currently being demonstrated.



## The Wildlife Lease Program

The Wildlife Lease Program inspired by Friends of Nairobi National Park (FoNNAP) and The Wildlife Foundation (TWF) is an attempt to halt the loss of important migration lands linking Nairobi National Park, the dry season concentration area with the wet season feeding areas in the Athi-Kapiti plains. The initiative supports the Kenya Wildlife Service's (KWS) objective of supporting an ecosystem management approach that takes account of the species and habitats inside the park as well as the entire ecosystem.

The local conservation community as well as local landowners, have struggled to find ways to arrest these negative trends of fencing, cultivation and settlement in areas immediately south of the park. Efforts to develop community-based tourism activities were unsuccessful due to the many conflicting interests and an inability to develop a common vision within what is a fairly diverse community in the

Kitengela. As a result activities inimical to wildlife conservation continued to expand and human wildlife conflict intensified.

In 1999, a pastoral household survey by the African Conservation Centre (ACC) was undertaken to examine the impacts of the wildlife corridor and the effects of the year round presence of particular species on the welfare of the community. The survey also assessed the acceptability of an easement programme to the landowners. The survey found that landowners in this area suffer frequently from wildlife-related problems. Over 93.5% of the households interviewed reported a very significant increase in human-wildlife conflicts caused mainly by shrinking land sizes, lack of economic benefits from wildlife, increasing human population, increased risks of human attack, severe competition for water and grass, and frequent predation (Mwangi and Warinda 1999). In 2000 the local community made an appeal to the International Livestock Research Institute (ILRI) to follow up on the ACC survey in order to provide to landowners an estimate of how much would be a fair price per acre to the landowners to allow continued access to wildlife.

The ACC/ILRI survey of 2000 indicated that most of the landowners were willing to leave part of their land open (0.5-250 acres) in order to accommodate wildlife in exchange for monetary gain. Based in part on the findings of the ACC/ILRI survey, in April 2000, with modest funding from The Wildlife Trust (USA), the Friends of Nairobi National Park (FoNNaP) and The Wildlife Foundation (TWF), a small initiative was launched to provide direct financial incentives for conservation in the form of cash payments to individual landowners in return for their voluntary entry into a **Wildlife Conservation Lease (WCL)** agreement. This lease program was officially inaugurated at the launching of the Nairobi National Park Migration Appeal in November 2000.

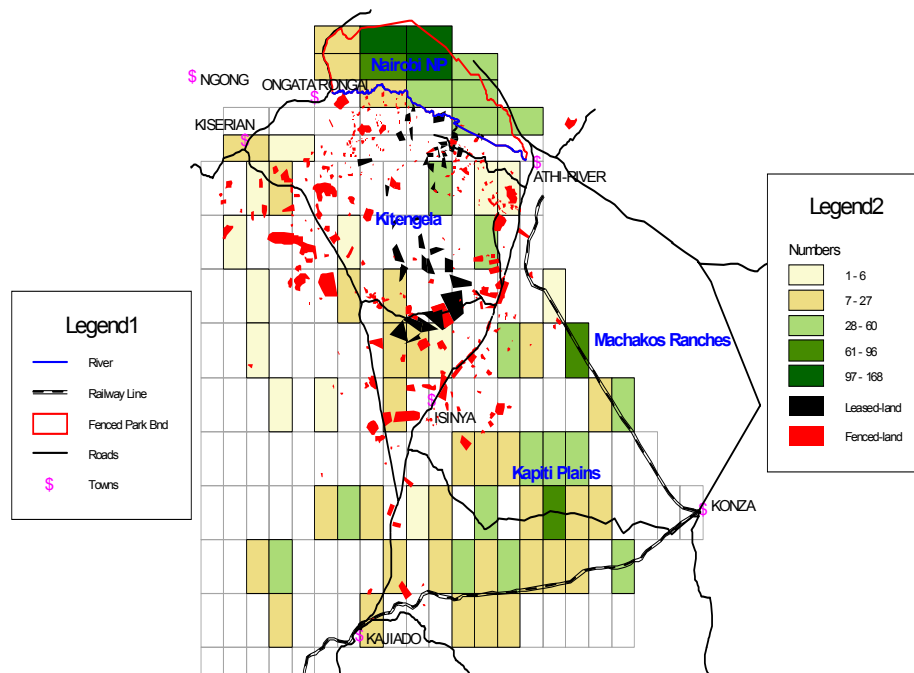
The WCL program began the pilot project with 214 acres owned by 2 households, growing to 2,708 acres by January 2001 and to 84 households covering 7,000 acres by April 2002. In July 2003, 115 households were signed up and a total of 8,400 acres were under this initiative. More families are on the waiting list with a total of more than 14,000 acres.

The project has depended on institutions external to the community interested in conservation of the greater ecosystem as well as conservation minded individuals in the community. It has also relied on external funding and plans are currently underway to raise 1 million USD to bring at least 60,000 acres of critical land under conservation management.

Issues of land in Kenya are highly contentious. The history of the creation of national parks, which alienated a lot of pastoral land, created a great deal of resentment against the national park movement. Any program associated with conservation and land are therefore looked on with suspicion and often assumed to be a precursor to the expansion of protected areas. At the advice of institutions and individual community members who had worked with the Kitengela community the lease was proposed as the easiest and best understood tool for use given the history of land in the area. The use of leases was also not new to many locals except in its application for wildlife conservation. With changes in land tenure from group ranch to individual ownership and as land holdings have diminished, the practice of leasing lands from neighbours or other community members for livestock grazing during crunch periods has grown. Using this well know system of 'buying rights of access and use' on private land it was easy to apply it to wildlife without arousing deep-seated suspicions over the potential loss of land.

To further convince them that the lease program posed no danger, the initiative relied on individuals from the local community to create interest and to allay fears. One of the individuals who acted as the initial champion for the lease program on the ground with FoNNaP is a member of the community. The participation of this bright, well educated Maasai landowner did much to galvanise action on the ground and had the impact of bestowing a rare confidence on the lease program in the minds of many less educated community members.

## Zebra and Wildebeest Distribution, Fenced and Leased Lands in the Athi-Kapiti Plains



## Implementation of the lease program

In return for agreeing not to fence, quarry, cultivate or subdivide the designated area of land, and to actively manage their land for wildlife and sustainable livestock grazing, TWF pays a fee of Kenya shillings 300/acre (approximately US\$ 4 per acre) per year directly to the landowner. This arrangement is formalized through a written contract between the individual land owner and the WCL. Currently the WCL pays US\$4 per acre per year, with a 5% base annual inflation factor built in.

The average participating household earns US\$ 400-800/year from its WCL paid three times year at the beginning of the school term. Payments have therefore, been used mostly to support education of children in the participating families and is one of the reasons for its strong success.

Before land is brought under the protection of a WCL, several critical steps must be taken:

- Land must be confirmed to lie within the primary wildlife migration/dispersal area.
- Titles are checked to verify clear ownership, the recorded location of each parcel, and the exact number of acres owned by the household.
- Physical verification is also undertaken and measurements of areas around houses and livestock enclosures that will not be used by wildlife are taken. These are excluded from the lease as the WCL program only pays for open unfenced land.

A number of additional steps are undertaken to enhance the quality and control of the WCL program and to enhance its positive conservation and social benefits:

- The annual WCL fees are paid in three tranches, in an open ceremony held three times a year during the last weekend before schools resume. This has encouraged households to use the funds to pay school fees.

- Field representatives of The Wildlife Foundation are based on the ground on a full time basis in Kitengela to monitor conformance with the WCL program.
- Wildlife Conservation Lease statistics and payments are recorded by computer, and also manually in a ledger book at The Wildlife Foundation office.
- To facilitate greater community participation in achieving their common goals, a new association was formed by local landowners to provide a collective forum for discussions and decision making on wildlife matters: the Kitengela Iparakuo Landowners Association (KILA). This association is acting as a focal point for discussing issues with other stakeholders involving the Wildlife Conservation Lease program and other issues relating to wildlife lands in Kitengela.
- Formalizes the WCL strictly between The Wildlife Foundation and individual landowners,
- Conducts all transactions openly and with full transparency.
- Distributes funds directly and equitably to every family in the program, based solely on the area of land under contract.
- The benefits are direct and families can individually decided on their economic priorities without reference to the wider community.

## Key Partners

Several key partners have been involved in the program's implementation or supported the WCL program in various ways, either through funding or providing technical support.

FoNNAP, a voluntary membership organization initiated the project with support of the Wildlife Trust and was the initial home of the lease program. The International Fund for Animal Welfare (IFAW), East Africa has provided some funding. Three agencies have provided technical support, AWF legal inputs, ACC and ILRI critical information on wildlife movements as well as socio-economic data that has been used to support the program. Kenya Wildlife Service, the national agency responsible for wildlife conservation has also been very supportive of the program.

## Successes of the lease program to date

The WCL initiative represents an innovative, "direct payment" approach to sustaining wildlife on private lands in an important and threatened grassland ecosystem in Kenya. It aims to protect and ensure sustainable management of this highly threatened yet nationally important ecosystem by countering the accelerating trend of land conversion through a combination of interventions that have provided direct benefits to the local community inhabitants, who as owners of land, have increasingly made land use choices that have been negative for wildlife conservation. The program has:

- Made direct payments to landowners for performing a valued service, that of conserving habitat and wildlife access. The link between the payment and conservation is therefore unequivocal.
- While the fee is modest, it has so far proven to be adequate to attract a large number of willing participants and to enable participating families to hold on to their land rather than sell it to meet short term cash needs.
- The combination of the program's fees and livestock yields are greater than can be realized by conversion to crop cultivation in that area and has therefore provided strong disincentives for farming.
- An obvious social benefit has been the improvement in school enrolment especially of girls, as more families are able to pay school fees.

## Lessons from the lease program

- The value of providing financial payment that can be linked directly to wildlife conservation in an area where communities have very limited sources of income is high.
- The timing of the payment based on the community's request has yielded high social benefits and is helping the households under the program to educate their children.

- Though modest, the cash payments have enabled traditional Maasai families to hold onto their land in the face of heavy temptation to sell and to continue their traditional pastoralist lifestyle by helping them finance short-term needs for cash that often drive the sales.
- Individuals can act as catalysts to provide impetus to a program such as the WCL. This has been the case with the Kitengela lease program.
- The role of individuals from the community in galvanizing and providing confidence to the wider community has been valuable.
- Institutional partners have provided valuable information that has to focus the lease program spatially and to provide much needed socio-economic information that has helped provide strong justification and supporting data. In this way the TWF has been able to focus on its area of strength.
- The WCL program has also avoided another common problem with community conservation initiatives -- a focus on providing development benefits rather than achieving conservation.
- The WCLs must be combined with other mechanisms in order to secure important migration crossings at the Mbagathi river and critical calving grounds for wildebeest and zebra in the south eastern part in order to retain connectivity and function between vital parts of the ecosystem.

## Challenges

Several key challenges to the program remain even as the popularity of the program grows and the benefits from it are realised by both the human community and wildlife.

The biggest challenge so far emanates from the rampant land sales that occur especially in the areas contiguous to the two tarmac roads that bound the Kitengela. Although the rate is slower now than it was five years ago, the fact that the newcomers often opt to fence their parcels continues to be a significant threat to the leasing process. A second challenge arises from the amount of the lease fee currently being offered. The USD 4 per acre is sufficient primarily for those who prefer a pastoralist way of life and who still own large tracts of land. The reason for this is high and rising value per acre of land. As the demand for land grows and the value per acre rises, younger people will find it difficult to resist selling especially as the sources of alternative income continue to be limited and the earnings from a combination of livestock and the lease remain modest.

The lease program needs to find ways to transition into multi-year contracts to improve planning and ultimately to perpetuate arrangements such as easements in order to assure the long-term availability of land for wildlife. Land purchase should also be considered in order to secure high value crossings points into and out of the park and lands under the lease program that come up for purchase.

## Replication potential

The lease program is looking to raise a medium-sized grant from the GEF to help expand the project to meet the goal of 60,000 acres over the next 4 years. The proposed 4 year program would lay the groundwork for a longer term program that will demonstrate the effectiveness of the approach. During this period, it is intended that AWF will work with government and key partners to facilitate development of a national institution that will undertake similar work and apply this, other economic tools and where possible purchase land in priority conservation areas facing similar challenges of land fragmentation and conversion. These problems are expected to escalate as land is subdivided around prime wildlife areas in the Maasai Mara, Amboseli and Laikipia. Fundraising to establish a Trust Fund under the national Trust will follow. These processes are also intended to provide the impetus for the development of a supportive policy and economic framework for the application of these tools more broadly.

## References

Kristjanson, P., Radeny M., Nkedianye D., Kruska R., Reid R., Gichohi H., Atieno F. and Sanford R. 2002. *Valuing Alternative land-use options in the Kitengela wildlife dispersal area of Kenya*. ILRI Impact Assessment Series No 10. A joint ILRI (International Livestock Research Institute)/ACC (African Conservation Centre) report.

Gichohi H.W 1996. The ecology of a truncated ecosystem: The Athi-Kapiti Plains. PhD thesis, University of Leicester, U.K.

Gichohi, H.W, Gakahu C. and Mwangi E. 1996. Savannah ecosystems. In: McClanahan T.R. and Young T.P. (eds.), *East African Ecosystems and their conservation*. Oxford University Press, Oxford, UK. Pp 243-270.

Galaty J.G. 1994. Having land in common: The subdivision of Maasai group ranches in Kenya. *Nomadic Peoples* 34/35: 109-122.

Gichohi H. W & Sitati N. 1997. Population estimates and distribution of large herbivores in the Kitengela/Athi-Kapiti ecosystem: June 1996 and July 1997 aerial surveys. Unpublished data, Nairobi, Kenya. 19pp.

## Acknowledgements

Ed Losli of The Wildlife Foundation has been the main champion and prime mover of this project, raising funds and working with other agencies to implement this program. His commitment to the maintenance of an open ecosystem is unwavering.

David Nkedianye was the initial local level contact for the project and did much to convince his fellow landowners of the potential of the lease program.

Robin Reid from ILRI and other institutions mentioned in the report were also important players in providing information as and other forms of support.

### **Further information/contacts:**

Mr. Ed. Losli, The Wildlife Foundation ed-l@att.net

Dr. Helen Gichohi, African Wildlife Foundation hgichochi@awfke.org

Dr. Agi Kiss, World Bank GE Akiss@worldbank.org