

IFMA 22 Congress, Tasmania, March 2019

Sub-theme: Environment & resources

**RANGE MANAGEMENT FOR CROPS, LIVESTOCK & WILDLIFE
ON KENYA'S EQUATOR**

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Applied paper: 2,847 words

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Abstract

There are considerable challenges to be faced to earn a livelihood from the semi-arid land of Laikipia, Kenya. These include periodic droughts, lack of water resources, poor infrastructure, lack of political support and the need for cooperation with neighbours. Since Kenya became independent in 1963, there have been big changes in the management of these properties, the most notable being the introduction of tourism in the 1980s which has prospered owing to the large reservoir of wildlife which exists in the area and the formation of Conservancies to protect the latter. Much of the income of the ranches is now derived from upmarket tourist lodges and safaris. However, they are still major food producers especially of quality livestock and some crops. Particular reference is made to the combined Lewa/Borana Conservancy which consists of two privately owned conservancies which have removed the fences between them to establish the largest Conservancy in the Country with a rich population of wildlife. A large area of land within Lewa was owned by one of the author's relatives until the 1980s and his personal experience of its development over the past half century is detailed in this presentation. Conclusions for a better future are drawn.

[Word Count 200]

Keywords: pastoralists; ranchers; wildlife; Conservancy; management

Introduction

The demise of nomadic pastoralism and/or wildlife populations has long been predicted and widely studied along with conflicts between ranchers and nomads. Laikipia County in central Kenya is the focus of the present paper, home to over 400,000 of Kenya's 50 million population. Characterised by semi-arid, cool, grassy uplands with open woodland, the area has pastoralists, diverse wildlife and tourism alongside ranches. Many of the

ranches in the less favourable areas find it necessary to derive much of their income from tourism now but this has only really developed during the past four decades. Laikipia was described poignantly by Errol Whittall in 1956 (p.190 in Huxley, 1991):- "...the great grass plains of whistling thorn that stretch northwards across Laikipia ...These are the ranching lands of Kenya with their swamps and their rivers which have their sources in the mountain ranges, with the homesteads clustering beneath the flat-topped thorns beside the watercourses. For much of the year these grazing lands are scorched by the sun ... and as the drought holds for month after month, one can marvel at the sleek cattle which live on the sparse but rich stargrass (*Cynodon plectostachyus* and *C. dactylon*), which, with the passing of the rains, dries into a hay of unsurpassed quality and richness, but which is nonetheless deficient in trace elements..."

The question of competition and even of the ultimate compatibility between nomadic pastoralism and wildlife is debated (Niamir-Fuller *et al*, 2012). Rangeland grabbing is an issue as elsewhere in East Africa (Galaty, 2013). The need for baseline surveys and mapping of pastoral migratory patterns is articulated for the Lahaween in neighbouring Sudan by Sulieman & Ahmed (2017). It has long been argued that indigenous and scientific knowledge must be integrated (Agrawal, 1995) and TEK (Traditional Environmental Knowledge) is now 'fashionable' in academic circles as well as for practical realism in concerted landscape management. What farmers want from rangeland management is well articulated by Smith (2006) for the veld of South Africa, taking proper account of varying agro-ecological zones and stocking within the grazing capacity accordingly. 'Rules of thumb' are proposed for cattle to sheep ratios, and for goat browsers. Wildlife ratios advocated to be managed are:- 40% bulk grazers, 20% concentrated grazers, 20% mixed feeders, and 20% browsers in bushveld areas, while a ratio of 50:50 bulk grazers to concentrated grazers is recommended for grassveld areas.

The whole issue of wilding to accommodate nature is fascinatingly discussed in relation to a post-millennium case study of a 1400-hectare Estate in south-eastern England (Tree, 2018). The proper valuation of natural capital is a focal principle of upcoming agri-environmental policy in the UK and elsewhere (Helm, 2015). It remains to be seen what lessons might be applied to the case of Laikipia discussed below. It is certainly part of the challenge for Africa to conserve and integrate trees, involving community dialogue and jointly agreed action (Maathai, 2009).

Background

Although located at 1,800m altitude with moderate temperature, much of the Laikipia region in Central Kenya is semi-arid and thus not suitable for intensive agriculture.

There exists an east/west band of large ranches located between the more productive farm land to the south and the nomadic pastoralist areas of the more arid land to the north. The Laikipia region of Northern Kenya caught the attention of the international media in 2017 following the murder of a prominent expatriate rancher and the wounding of a well-known conservationist. This had been occasioned by a particularly severe drought in a national election year causing pastoralists to invade privately owned ranches. This is not a new problem but rapidly increasing human and animal populations in the pastoral areas plus an ever increasing influx of arms which emanate from neighbouring Somalia coinciding with political interference over land issues, put ranch owners in a siege situation. This has been well documented and was outlined in a poster contribution by Tim Roberts, one of the authors, to the last IFMA Congress (Edinburgh, 2017). The drought has now ended; political differences have somewhat abated and a sense of normality has returned. Currently there are some initiatives described here to attempt to deal with some of these issues and to avoid such chaos during future droughts which are cyclical and are sure to recur. This cannot just be the initiative of the ranch owners themselves but needs the support and commitment of the Government and local authorities as well.

Personal Experience

A large area of land lying north of Mount Kenya was owned by the father-in-law of Tim Roberts. He acquired it from an uncle of his who had been granted the property as a soldier settler following the first World War. Although located in Meru District it is an extension of the Laikipia semi-arid ranch country. It was not until after the second World War that development really began with ranches, cattle, sheep and goats plus varied cropping on the irrigable areas which were adjacent to a permanent small river flowing from nearby Mount Kenya. He established an extensive dairy operation, the milk being marketed in nearby Meru District. This market ceased on Independence in 1963 and the dairy equipment was sold to the newly established Meru Dairy Cooperative Union. Meantime, crops were grown in the fertile irrigable areas: notably tobacco and maize. The former was halted by opposition from a local tobacco company and the latter grown primarily for local consumption. Wheat was tried on the non-irrigable land in the early 1970s but proved to be a failure in the longer term with only one profitable harvest over a 5 year period. (To

this day the land has not reverted to its original state!) In contrast to the improved livestock on ranches in Laikipia, his livestock (and on neighbouring Lewa) had not been improved so a viable livelihood was difficult to achieve. My father-in-law's nickname by the local Meru people was '*Karamoni*' – 'a finger in many pies'. He demonstrated this in his next project which was to obtain a jaggery (brown sugar) press from Western Kenya at a time when large sugar factories were being established to replace the small privately owned sugar mills. He had established sugar cane which grew well on the 'black cotton' soils next to the river. However sugar juice proved to be a far more marketable product than the brown sugar itself, as it was used for brewing by the local people in the adjoining Districts. (Local brewing was banned later by President Moi but fortunately after the farm had been sold!) Eventually in the late 1970s part of the property was sold to the adjacent Lewa Downs and the main ranch to a trio of politicians led by a member of the Boran ethnic group from the north of Kenya who brought some of his people to work on the land. In their possession for just over 20 years it was then sold and became part of the Lewa Conservancy as it then was. However a small proportion along the river where cropping is possible was retained by the Boran community and has been fenced off for them to farm as well as to provide labour for the conservancy. Then, in 2016, the fences between Lewa and the neighbouring Borana Conservancy owned by second generation settlers (not to be confused with the ethnic Borans), were removed to form a protected area of land extending to around 40,000 hectares. Public roads passing through the Conservancy are open to everyone, and livestock ranching takes place alongside wildlife management and conservation. In earlier years there was always a conflict with wildlife – lion killing livestock or elephants invading the sugar cane, for example. Modern technology has reduced this conflict.

Conservancies

These are sometimes a mixed blessing as expressed by the current owner of Borana. Wildlife is of course vital for the operation of their tourism business and grants from overseas are often available for the additional costs of protecting the wildlife e.g. fencing. However, safeguarding the rhino population, for example, requires 24 hour surveillance, the cost of which outweighs the grants received. The cost of translocation of rogue elephants runs into millions of dollars, though this is borne by the Kenya Wildlife Services (KWS). It was suggested that trophy hunting, though an anathema to the speaker and most

people, could bring in much needed financial support. The Kenya Wildlife Conservancies Association is doing much to address these problems. What is for certain is that wildlife has a more secure future in the Conservancies where poaching is better controlled than in the wider environment of National Parks and Reserves.

Marketing of Pastoralists' Cattle

One of the myths of pastoralists in the 21st century is that they maintain large numbers of stock to demonstrate their wealth. This may have been the case in the last century but in the modern era they are as interested in financial gain as any other producer. The more likely explanation is that they do not have a satisfactory marketing outlet because of exploitation by middle men in the meat trade. This has been demonstrated by the two schemes operated by Borana and Lewa which operate slightly differently. On Borana, an agreement is made with local pastoralists to bring their cattle to a weighbridge on a particular date. If in reasonable condition and apparently healthy these animals are weighed, have an electronic tag implanted and are brought onto a particular area of the Conservancy. Usually it takes at least 3 to 6 months before they reach a marketable condition at which point they are sold to reputable buyers to whom the ranch already sells its own improved stock. The animals are weighed again and after deduction of a management fee (20%) the owner is credited by mobile transfer of funds to his/her bank account. The animals are held on the ranch for the owner with no payment when they are accepted. This has worked well with good trust on both sides and enabled a good relationship with neighbours. In contrast, Lewa pay for the stock when they are weighed and enter the ranch, keep them until they have improved, then sell them on to a ranch in a more favourable fattening area for finishing. However, their margins are small, which means that this system is less profitable.

Water Resources

The Borana/Lewa conservancy lies to the North of Mount Kenya from which any rivers or springs emanate. Two main factors have contributed to a major decline in these water sources: firstly, the retreat of the glaciers on the mountain which formerly acted as a 'reservoir' for the flow off the mountain; secondly, the massive increase in irrigation by flower farms and smallholders, often illegally. This greatly reduces the flow of rivers which were once perennial but now stop flowing during the dry season.

The Government has been lax at addressing this issue but the Laikipia Wildlife Forum, a community-based organisation with its headquarters in Nanyuki, is attempting to bring water users together to create better regulated schemes.

Community Involvement

Much is being done by Conservancies to improve the lives of people living within and in the vicinity. There has always been neglect by Central Government of the pastoralist people in the north who are as alien to the populations and politicians in the more favourable areas as to western societies. This is borne out by the fact that towards the end of the last century, land in Laikipia was being marketed to wealthy Nairobi residents at prices similar to those in high potential areas bearing no relation to its productive value. Much of this land thereafter remained idle or was abandoned and was infiltrated by pastoralists from further afield which helped to contribute to the chaotic situation in 2017. Much of this land has been severely degraded by overgrazing as there has been no land management.

The Conservancies are now taking a hand in the betterment of local people's lives by supporting schools and health centres and providing income generating activities. For example, on Lewa local women produce beadwork and other crafts, though the best example of this is to be seen on Segera ranch further west. There, a Women's Group has been able to buy land and put up a building where their work takes place with an adjacent shop. It is located just outside the main gate of the ranch which welcomes up-market tourists. These are taken to see the Group, encouraged to buy their products which are invoiced and then paid for when checking out of the lodge in Segera. The proceeds are then transferred to the Women's Group bank account by mobile phone.

Conservation

Borana/Laikipia is fortunate to be bordered to the south by the Ngare Ndare forest reserve; to the north-west by the Mukugodo forest reserve, and to the north by the Il Ngwesi Conservancy. Contrary to earlier observations, these are all well managed with some participation from Borana/Laikipia itself and thus provide an even greater area for wildlife to explore. The management of wildlife itself is a complex operation. Without the right balance of predators the numbers of some species can spiral out of control. The vegetation may be overgrazed or damaged by one species which affects the survival of other grazing

animals. There are bound to be some losses of domestic stock to predators but much improved night time enclosures and the use of electric fencing can reduce these.

Politics

There is no doubt that national devolution during the last decade has helped the rural areas of Kenya but as one cynic observed, as long as it is not a devolution of corruption! The other negative has been the increase of staff in the implementation of this process, the costs of which the Local Authority has to meet by increasing taxes.

The chief executive of the Laikipia Wildlife Forum in a 2017 article in *Swara*, the magazine of the East African Wildlife Society, emphasised ‘the importance of property rights, the rule of law and land ownership as being vitally important’.

The indifference of central government to the plight of the people in the north of Kenya must be overcome. There is a Pastoralist Parliamentary Group formed by politicians from the pastoralist area but how much influence they have remains to be seen. At least there is a growing number of well-educated young people from the area who are becoming involved in improving local living standards. An impressive example is the newly appointed Laikipia Public Service Board instigated by the Laikipia Governor, which has good representation of women and young people and replaces its predecessor which was dismissed in June 2018 for its poor service to the community.

Nanyuki Pastoralist Conference 2018

ECHO is an international agricultural support agency. ECHO exists to reduce hunger and improve the lives of small-scale farmers worldwide. It provides agricultural and appropriate technology training to development workers in more than 165 countries. As had been the hope at IFMA 21 in Edinburgh (Roberts, Poster 2017), an ECHO pastoralist meeting was repeated again in Nanyuki, Laikipia in early 2018. This was the third such conference to take place in Kenya being a biennial event. Attracting pastoralists and some ranchers from within Kenya and neighbouring countries, it provides a forum for discussion of the problems faced by participants and attempts to find solutions. Three days of talks are followed by field visits, and in 2018 about 15 participants travelled the 50km from Nanyuki to the Lewa/Borana Conservancy.

An excellent dialogue was held with the ranch owner/manager in which their scheme to assist local pastoralists to market their animals and the trials and tribulations of managing

wildlife were discussed. At the time of the visit the Kenya Wildlife Services (KWS) were engaged with the removal and transfer of some young rogue elephants which had been damaging small farmer neighbour's crops.

Conclusions

There is an immense amount of work in progress to improve living standards in Laikipia, and to attempt to avoid the serious conflict of 2017. The Government will need to play its part by reducing the number of guns in the North to reduce lawlessness. The ethnic groups themselves will need to address the issue of breakdown of traditions whereby the younger generation do not respect their elders. The ranchers themselves will have to remain resilient and hopefully look forward to more secure land and property rights which the Community Land Act has been set up to resolve. This presentation reflects the personal viewpoint of one of the authors who in no way claims to be an expert on a fast-changing scenario viewed from afar. He is fairly certain that his late father-in-law would thoroughly approve of the evolution that has taken place for his land to remain productive and become a haven for wildlife in the 21st century. His co-author endorses these aspirations for practical and harmonious co-existence of pastoralists, ranchers and wildlife.

Finally, there is a move afoot for the UN to designate 2020 as the International Year of Rangeland & Pastoralists, which would no doubt provide much publicity and impetus for improvement for one of the most challenged environments on the planet.

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