EXECUTIVE SUMMARY

Over the past decades, the Ol Pejeta Conservancy, located in the north of Kenya, set up an innovative system to integrate livestock farming and wildlife. It was based on research showing that cattle could be used as an “ecological tool” to manage rangelands, maintain heterogeneity, maximise biodiversity and therefore attract tourism. This led to more income and diversified income sources (tourism and cattle) as well as jobs for locals.

In 2006, OPC initiated the programme “Linking Livestock Markets to Wildlife Conservation”, targeting local pastoral communities who depend primarily upon livestock and have been struggling with droughts and weak infrastructure.

Working together with Lewa Wildlife Conservancy, OPC started purchasing cattle from these pastoralists, paying prices up to 30 percent above market rates. The cattle is then transported to OPC and Lewa, where it is held and fattened for sale and eventually the high-quality meat is sold on premium markets such as Nairobi.

By 2010 seventeen conservancies had joined the programme, which is monitored and managed by the Northern Rangelands Trust, an umbrella organisation of community conservancies. NRT coordinates the activities of the conservancies and offers trainings in sustainable cattle holding management and basic business skills to the communities.

As a result, overgrazed areas, biodiversity and wildlife recovered, making the area more attractive for tourism, which in return produces jobs and income for the entire region. The pastoralist communities benefited from the sale of their cattle above market prices and have been integrated into the economic cycle and have improved their economic capabilities.
INTRODUCTION

Richard Vigne, the CEO of Ol Pejeta Conservancy in northern Kenya, watched the sky with scepticism. There was still no sign of rain. The current drought in the region had caused a lot of cattle to die. Although the inhabitants of Ol Pejeta Conservancy were used to dry periods, what they were witnessing this year went far beyond. A couple of years ago, they had started an ambitious programme called Linking Livestock Markets to Wildlife Conservation, which was to illustrate the reciprocal benefit of both community development and wildlife protection. The recent developments meant a step backwards especially for the northern conservancies of the Northern Rangelands Trust, an umbrella organisation of Kenyan community conservancies.

Livestock is the main source of livelihood for pastoral communities in northern Kenya. Poor rangeland management and excessively large herds (as a result of inefficient market systems, unpredictable weather patterns and cultural traditions) have led to environmental degradation from overgrazing. Consequently, wildlife numbers have diminished in these areas due to the lack of forage and pasture. Pastoralists are also exposed to economic risks, particularly in times of drought. At the same time, efforts to conserve nature are complicated through the collateral effects of the pastoral livestock management.

One of the major problems the pastoralists face is the lack of accessible and equitable livestock markets in reach of the communities. Long distances separate them from the nearest local markets, which means that they risk the value of the animals on the way there. Furthermore, a high dependency exists on brokers or middlemen and often the pastoralists have to pay fees to be able to sell their cattle on the markets.

At the same time, conservation efforts in northern Kenya are hindered by the these livestock management problems among the pastoralists’ communities because overgrazing and poor rangeland management damage the environment and reduce wildlife numbers. This also leads to complications in the development of tourism and diversification of income. Reliable and equitable cattle markets for pastoral communities could serve as incentives to reduce herd levels and improve livestock management.

In 2006, the Ol Pejeta Conservancy pioneered a programme to achieve environmental and social impact: In partnership with the Lewa Wildlife Conservancy and the Northern Rangelands Trust NRT the programme “Linking Livestock
Markets to Wildlife Conservation” was set up. The aims of the programme were to improve the living conditions of semi-nomadic Samburu and Maasai pastoralists through cattle trading and selling high quality meat, as well as to contribute to wildlife conservation efforts in northern Kenya. This was going to be achieved by reducing livestock densities through improved returns per head and access to markets for the communities.

BACKGROUND

NORTHERN KENYA

CLIMATIC AND SOCIO-ECONOMIC CONDITIONS

The northern region of Kenya is an ethnically diverse area. Its defining feature is its arid to semi-arid climate. Total annual rainfall in the semi-arid districts ranges between 150 mm and 550 mm per year, with less rainfall in the drier regions of north eastern and eastern Kenya where evapotranspiration is high. Rainfall usually spikes in April and November with prolonged periods of drought between these months. An exception to this weather pattern is Rift Valley, where rainfall is more evenly distributed over the year, making it better suited for horticulture. Population density ranges from 1 to 2 people per km² to 358 per km². Based on the climate conditions, the economy of the arid districts is dominated by semi-nomadic pastoralists, who live primarily on cattle farming (see box). In the better-watered, semi-arid areas of Rift Valley and North Eastern Province, a more mixed economy prevails, including rain-fed and irrigated agriculture, agro-pastoralism, small-scale businesses based on dryland products and conservation or tourism related activities.

The whole region of northern Kenya displays many of the characteristics of remote rural areas: A high poverty rate, isolation, insecurity, weak economic integration, limited political leverage, and a challenging natural environment (desertification in the north). All these combine to produce high levels of risk and vulnerability. 18 of the 20 poorest constituencies in Kenya, where almost 80 percent of the population live below the poverty line of USD 1.25, are in northern Kenya (Government of Kenya 2008: Constituency Report on Well-being in Kenya). The highest rates of poverty are observed among those who are no longer directly involved in pastoralism, particularly those without livestock who depend upon casual labour or petty trade in towns. There are also significant social inequalities within the region, particularly with respect to the rights of women, lower castes and minority clans. The inequalities between the North and the rest
of Kenya, in access to services and investments affect not just pastoralists, but the whole population of the region.

SPECIFIC CHALLENGES

ARID AREAS AND DROUGHT

Drought is a normal, recurring but temporary characteristic of arid areas. It is the consequence of a reduction in the amount of rainfall received over an extended period of time relative to the average. Drought periods should be anticipated and can be managed. Failure to manage them well has major social and economical consequences. Some examples of effects of drought on a pastoral economy are:

- Loss of livestock: Kenya is estimated to have lost livestock worth USD 77 million in the 1999-2001 droughts (while receiving food aid worth USD 200 million). This continued to be the case in 2010–2011;
TRADITIONAL NORTHERN KENYAN PASTORALISM

Pastoralism has a long tradition in northern and eastern Kenya. Historically, nomadic tribes used to move their livestock – mainly cattle, goats, sheep and camels – from one pasture to another. Large rangelands of today’s Kenya, Somalia and Ethiopia were used for grazing. Livestock has been the main source of food and income for most nomadic tribes and clans for generations. Typically, derived products like milk or a mixture of blood and milk have served as the most important staple foods, while meat is only eaten on special occasions. Additionally most of the people also eat roots, barks or vegetables.

Over the last century it became increasingly difficult for nomadic tribes from the ethnicities of Samburu, Maasai or Turkana to find nourishing pastures for their herds. Growing numbers of population and the gradual degradation of grazing land have led to reoccurring violent conflicts about natural resources, like pastures and water. As a consequence, some of the tribes settled down and became semi-nomadic or sedentary communities. The housing of semi-nomadic communities in rural areas is still very basic. Round huts measuring a few metres in diameter are very common. These huts usually have walls made of mud and cow dung with thatched roofs. In cities shelters made of corrugated iron have become affordable solutions for poor people, whereas wealthier people live in houses made of brick.

Nowadays, Kenyan pastoralism means the extensive production of livestock in semi-arid and arid rangeland environments. It takes many forms, but its principal defining features are still livestock mobility and the communal management of natural resources. The primary policy challenge is how to protect and promote mobility for semi-nomadic communities and support the customary institutions that underpin pastoralism in a society, which is otherwise sedentary and tends towards more individualised modes of organisation and production.

Until recently, pastoral areas were viewed as net consumers of national wealth, offering poor prospects of return on investments. These perceptions are slowly changing as pastoralists take more of an active role on the national stage and as the economics of pastoralism become better understood (Luis Rodriguez 2008). The value of the intra-regional livestock trading within the Horn and East Africa, for example, most of which is managed by pastoralists, is estimated to exceed USD 60 million per annum (COMES 2009).
Reduction in pastoralists’ purchasing power through livestock mortality, declining condition of animals, and deteriorating terms of trade between livestock and grain;
- Reduced availability of nutritional food;
- Disruption in flow of livestock to market;
- Drought-driven sedentarisation contributes to localised environmental degradation;
- Increased risk of violent conflict about natural resources, such as pastures and water;
- Increased workload for women;
- Extended migration and the loss of homes and traditional livelihoods.

Poverty reduction, drought management and adaptation to climate change are strongly connected with each other. Poverty reduces people’s capacity to make choices and therefore increases their vulnerability to drought and the negative impacts of climate change.

WEAK INFRASTRUCTURE

“Kenya aspires to be a country that is firmly interconnected, where no part of it will any longer be called remote.” This government statement is highly significant for the North, where infrastructure is consistently ranked among the people’s top three priorities. Four aspects are of particular concern: transport (especially the road network), energy, water, and information and communication technologies (ICTs).

The persistent lack of infrastructure has undermined private sector investments and reinforced the separation of the region from the rest of the country. The transport network is thin, disjointed, and in some places non-existent. An area covering nearly 400,000 km² of land has less than 700 km of Tarmac (calculated from district development plans 2002–2008). The energy potential of the North, from solar, wind and geo-thermal, is available but largely untapped. Only one district in North Eastern Province – Isiolo – is served by the national electricity grid.

INSECURITY, CRIME AND VIOLENCE

Northern Kenya is associated with insecurity and violence. This is particularly true of North Eastern Province, which continues to be perceived as insecure because of its proximity to Somalia. In reality, the situation is more complex.
First, it is important to distinguish between crime and insecurity. Levels of crime in the northern region are generally low. The provincial break down of reported crimes shows that in 2007 North Eastern Province accounted for a little over one percent of cases in the country, with one crime for every 1,675 people. This can be compared with Central Province, which reported one crime for every 447 people (Republic of Kenya 2008: Crime Statistical Report). Strong social and religious networks may be a factor in this even when it comes to an activity such as stock theft, which is common in the North. Only seven of the 1,040 cases of stock theft reported in Kenya during 2008 were committed in Northern Eastern Province. The province has, in fact, led the way in developing effective community-based peace-building mechanisms, which have transformed its social and economic environment. However, popular perception of insecurity still persists and is at odds with this reality.

Second, insecurity in the North is episodic rather than constant. It tends to be clan-based rather than directed at outsiders, and is primarily centred on identity or resources – driven by competition over natural or political resources or by a group’s desire to assert itself. One major incident, while appalling, can distort perceptions and cancel out less well-reported gains in peace building and conflict management. Given the reoccurring violent conflicts of some neighbouring countries and the pastoralists’ need for mobility, insecurity in northern Kenya has international dynamics and ramifications. Various cross-border peace mechanisms have been tried, but they tend to be sporadic and under-resourced, taking place in the absence of a comprehensive regional policy to facilitate interaction and coordination between states. Border controls are weak, such that in some areas peace is maintained more by the traditional interaction between pastoralist groups than by the presence of any state.

THE REGION’S UNTAPPED POTENTIAL

While the constraints facing the region are evident, its potential has been obscured; a significant amount of wealth exists under the radar. The potential for growth is arguably higher because the region is starting from a lower base than other Kenyan regions.

Research shows that some of the highest returns of investment – in roads, electricity and education; as well as the greatest effects on poverty – occur in marginal, rain-fed areas rather than in irrigated or more fertile areas (Hazell 2001). What has been lacking is adequate attention to the region, a proper
understanding of its needs and potential, and a deliberate political commitment to address them.

LIVESTOCK RANCHING AND TRADING

As populations increase, urbanise and become richer, more demand for meat and other livestock products is created (Delgado et al. 1999). Kenya is already a meat-deficit country, which means that it has to import meat. One study suggests that 400,000 jobs could be created and 50 percent of that meat-deficit could be met by increased livestock production from North Eastern Province alone (ReSAKKS 2008). An example, which illustrates the hidden wealth that lies in livestock trade, shows that revenue collection by the Samburu County Council increased ten-fold, to an average of one million Kenyan Shillings per year (approx. 10,000 Euro), after it started a partnership with the livestock marketing association in Archers Post to run a sales yard on a revenue-sharing basis (SNV 2008).

TOURISM AND WILDLIFE

Most protected areas such as game reserves and national parks are found in the arid and semi-arid lands (ASALs), giving the region a comparative tourism advantage. Tourism has developed to Kenya’s highest foreign exchange earner and contributes around 12 percent to Kenya’s GDP. There is an important linkage between pastoralism, conservation and bio-diversity. Over 70 percent of Kenya’s wildlife is found outside protected areas on land occupied by pastoralists. With the right incentives in place, research shows that wildlife numbers and diversity can be higher in areas adjacent to national parks than within the parks themselves (ASARECA 2009).

FURTHER POTENTIAL

In addition to livestock rearing and trading and tourism respectively, the possibilities are rich. Some of them are:

- **DOMESTIC TRADE:** The economies of the lowlands and highlands are complementary. Opening up the north will generate greater demand for Kenyan products. There is already significant movement of capital between parts of the North and Nairobi, which is set to grow further.
STRATEGIC POSITION: The region’s geographical location and its social and cultural attributes make it well-positioned to benefit from surplus capital in the Gulf, one of the fastest growing parts of the world. It is also the bridgehead to a regional economy of over 100 million people. Countries such as Ethiopia, South-Sudan and Somalia need outlets for their products, imports of manufactured goods and, in the case of civil war-ravaged South-Sudan and Somalia, material for reconstruction.

CLIMATIC CHANGE: Pastoralists have successfully managed climate variability for centuries. Their skills and knowledge will become more valuable as the impacts of global climate change become more pressing.

NATURAL WEALTH: If Kenya has commercial deposits of oil and natural gas they will be found in the ASALs, particularly in the north and east of the country. Other natural resources include sand and gravel for construction, a wide range of precious minerals, soda ash, gums, resins, and medicinal plants. Dryland soils and vegetation store carbon, suggesting that the ASALs have the potential to generate payments for environmental services, such as carbon sequestration (ILRI 2006).
ORGANISATIONS

OL PEJETA CONSERVANCY

The Ol Pejeta Conservancy (OPC) is located west of Mount Kenya in an area considered to be semi-arid. Traditionally, areas of this sort have been used for cattle ranching, being unsuitable for rain-fed agriculture. As such, prior to the 1970s, Ol Pejeta was a highly developed and very productive cattle ranch. It was fully paddocked with an extensive fencing and water supply system. Importantly, wildlife was not tolerated, as they were seen as grazing and disease competition for cattle. During the 1970s, extended human settlement to the south, increasing elephant poaching to the north and a ban on wildlife hunting, caused elephant herds to begin taking up more permanent residence on Ol Pejeta and overall game numbers grew. This resulted in all internal fences being lost – it is not possible to maintain normal ranch fencing in the presence of large elephant populations. The livestock management system had to be adapted, becoming similar to the one used by pastoralists such as the Maasai. Cattle were now herded to graze during the day and kept in night enclosures, or “bomas” (a boma is a moveable enclosure, especially a palisade or fence, set up to protect a camp, herd of animals, etc.) at night where armed men guarded them.

Over time, these burgeoning wildlife populations caused the cattle ranching business to become less productive. In response to increasing demand for wildlife tourism, management began to see wildlife as an asset and the Sweetwaters Game Reserve was set up at the OPC.

LEWA WILDLIFE CONSERVANCY

The Craig family had owned what was known as the Lewa Downs since the 1920s and for over 50 years managed it as a cattle ranch. In 1983, encouraged by the rapid decrease of black rhinos, the first rhino programme started, which established the fenced and guarded Ngare Sergoi rhino sanctuary of about 5,000 acres at the western end of Lewa Downs. In 1995, the whole Lewa Downs were turned into a wildlife conservancy. Today, the 62,000-acre conservancy holds more than 19 percent of the world’s Grevy Zebra population, 50 indigenous black rhinos and 38 white rhinos, an abundance of the “Big Five” (lions, African elephants, buffaloes, leopards and rhinos), 65 other mammal species native to East Africa, and prolific bird life.

Community development projects that centred on wildlife conservation were started in 1995. The first was Ngwesi, a 16,500-acre group ranch to the northwest of Lewa. It had a lodge that was owned and run by the Ngwesi people, the
Laikipia Maasai. All profits from this conservancy were returned to the community, who became supporters of conservation. The Ngwesi conservancy turned out to be successful as there has not been any commercial poaching for a decade and wildlife recovered as intended. This encouraged other pastoral communities in drier areas further north to get involved in conservation too, and soon a bigger organisation was needed to coordinate the different interests and activities. In 2004, the Northern Rangelands Trust (NRT) was founded.

THE NORTHERN RANGELANDS TRUST

The Northern Rangelands Trust (NRT) is headquartered at Lewa Wildlife Conservancy. NRT is a non-profit, umbrella organisation to 17 conservancies in northern Kenya (Biligo Bulesa, Ishaqbini, Ngwesi, Kalama, Lekurruki, Ltungai, Meibae, Melako, Mpus Kutuk, Naibunga, Namunyak, Ngare Ndare, Ruko, Sera, West Gate, Kipsing, Eland Downs) aimed at developing community institutions in order to improve wildlife conservation and pastoralists’ livelihoods. NRT’s main area of work has been the education of pastoralist communities to make them understand why wildlife conservation will benefit them in the long run. The NRT consists of representatives from private and community-based initiatives in northern Kenya. NRT offers technical support and security advice, management know-how and rangeland management and facilitates tourism and eco-travel projects.

Currently 17 community conservancy groups have been established under NRT. Establishing a community conservancy includes:

- Setting up governance i.e. By-laws;
- Agreeing how to run the conservancy; and
- Agreeing on the economic activities that the community will engage in e.g., eco-tourism: an investor can build up camps/lodges, manages the lodges for a while and later reverts them to the community.

All the conservancies are members of NRT and work closely with the organisation to meet conservation, governance and socio-economic goals. For this purpose each member conservancy designates one representative to the Council of Elders, which is responsible for distributing financial benefits of wildlife conservation to all members equally. NRT is an innovative partnership, which works to facilitate community-led conservation initiatives in northern Kenya, promoting the collective management of ecosystems to improve human livelihoods, biodiversity conservation and rangeland management.
LINKING LIVESTOCK MARKETS TO WILDLIFE CONSERVATION

LIVESTOCK AND WILDLIFE

“It’s about selling cows in return for sustainable rangeland management; it’s about enhancing livelihoods, and creating alternative income streams for pastoralist communities”, said Richard Vigne, CEO of Ol Pejeta Conservancy, about the primary rationale of the Linking Livestock Markets to Wildlife Conservation programme. The programme intends to create income-generating employment for northern Kenyan semi-nomadic pastoralist communities through selling cattle meat on local premium markets and at the same time establishing perfect conditions for luxury tourism.

Initially, OPC decided to exclude cattle from its Sweetwaters Game Reserve, principally because it was felt that their presence was incompatible with the presence of fee-paying visitors. With time, the management realised that provided cattle were kept discreetly and in sustainable numbers, their presence was acceptable to visitors wishing to see wildlife. Indeed many visitors to the Ol Pejeta Conservancy were so interested in the cattle operation that the management started to organise ranching tours and the basic idea of a broadly established ecologically sustainable business model was born.

Local scientific evidence – much of it developed on Ol Pejeta Conservancy – showed that cattle can be used as an “ecological tool” to manage rangelands, maintaining heterogeneity and maximising biodiversity. The Ol Pejeta Conservancy has an annual rainfall of over 700 mm per year, received in two main seasons, often with no prolonged dry season. This enhances good growth of grass, which if not grazed and dunged, becomes rank, stale and therefore unsuitable for all grazers, including wildlife. Cattle are used as a tool to intensively graze such areas to improve the quality of grass. The trampling effect and controlled grazing of cattle recover the quality of grass very quickly, something that simply cannot be done with wildlife. After cattle disturb the grounds in the paddocks, the dominant grass species, Pennisetum and Themeda, are phased out and the nutritious Cynodon comes out and flourishes due to the added manure from cattle droppings. Once the cattle are moved from the paddock they leave “hot spots” with grass that attracts wildlife to graze on them.

On Ol Pejeta, controlled grazing of cattle has not only resulted in an increase of wildlife numbers but also profits. Before the integrated system that combines
wildlife conservancies and cattle rearing, the annual profitability per acre was USD 8.00 for wildlife and USD 0.60 for livestock, giving a combined profitability of USD 8.60. After the integration, it increased to USD 11.20. An integrated system of cattle production and tourism therefore provides more income and better margins than an “either, or” situation.

BENEFITS OF WILDLIFE-LIVESTOCK INTEGRATION

The integration produces the following results (OPC 2011):

- Maximising land productivity and profitability (from USD 8.60 to 11.20 per acre per year);
- More local and regional employment from tribal communities. People have to be hired – to move and guard the bomas and manage the conservancy – to ensure successful integration;
- Reduced business risk in times of poor tourism. Tourism is a fickle business that is prone to drastic downturns. The presence of a livestock enterprise may therefore assist to carry organisations through periods of tourism downturn and reduced revenues. A livestock enterprise can thus be described as a “risk management” tool;
- High quality meat for Kenyan markets – livestock are sold both to Nairobi and to the Kenya Meat Commission as a source of readily available and affordable food.

START OF THE PROGRAM

RATIONAL AND SET UP OF THE PROGRAMME

Pastoralist communities of the Northern Rangelands Trust who depend primarily upon livestock for their livelihoods – and for a number of reasons such as the semi-arid context, defunct government marketing infrastructure, lack of efficient access to reliable markets and cultural beliefs – are compelled to operate a risk based livestock production and management system. Under this system, traditionally very large livestock herds are accumulated and then massively depleted by drought. The environmental, economic and social value lost is significant.

In response to this ecological rationale and earlier mentioned regional constraints and potential, the Linking Livestock Markets to Wildlife Conservation programme was established in 2006.
The programme was intended to improve conservation in northern rangelands by establishing a more sustainable and equitable cattle market for pastoralists. It is a revolving fund that is used to finance the acquisition and trading of community owned livestock.

The set up of the programme was intended to be as follows:

NRT would manage the Linking Livestock Markets to Wildlife Conservancy. OPC was going to buy cattle from farmers living in communities in the North. The cattle would then be taken to the LEWA Wildlife Conservancy to graze, which benefited the grazing lands and increased wildlife population. After a certain amount of time when the cattle gained an appropriate weight, they would be further taken to Ol Pejeta where they would be examined and eventually slaughtered. Finally, through their established distribution systems, the high quality meat would be sold at profitable prices on markets in Nairobi, etc. OPC would merely cover their costs and the remaining profit margin would go to NRT. NRT would use these profits to train farmers in the conservancies in the North on sustainable cattle holding techniques and therefore contribute to awareness-raising about the benefits of controlled grazing and wildlife conservation.
Hence, the aims of the programme were set out:

- Link pastoralist communities' cattle to high value markets in the major centres (e.g. Nairobi) using OPC's existing and well-developed marketing and distribution systems, in a manner that is reliable, predictable and commands significantly higher prices;
- Provide advice and assistance to pastoralist groups to improve the quality of the product offered for sale, thereby laying further foundation for increased cash flows back to them;
- Advise and assist pastoralist groups to implement appropriate cattle stocking rates and sustainable rangeland management systems;
- Implement appropriate technologies to enable the establishment of wildlife and livestock integration (e.g. predator-proof fences); and
- Provide facilities to hold and fatten livestock as a means to hedge normal market fluctuations.

COMMUNITY LIVESTOCK TRADING, PURCHASING AND MARKETING

Once a community conservancy is approved for participation, OPC informs the communities about cattle purchase dates in advance. The conservancy then holds community meetings to determine which individuals would like to sell their cattle and how many each can sell with special preference given to those in particular need of cash. OPC travels to each community on the date of purchase and reaches an agreement with the cattle owners on the sale price for groups of cattle classified according to grade. Cattle are allocated into 15 different grades depending on weight, but also on age and condition. Grades 1–9 relate to cows, bulls and steers while grades 10–15 relate to weaners and calves.

OPC buys up to 30 percent above market prices for cattle purchased from the NRT conservancies. This has created immense interest within the communities and achieved measurable conservation and rangeland management improvements. OPC has a target purchase price of KSh 0.70 per kg live weight for steers and KSh 0.60 per kg live weight for bulls and cows.

The pilot programme was initiated in 2006 with Ngwesi Conservancy, a Laikipia Maasai community of about 6,000 people. Ngwesi Conservancy is located north-west of Lewa Wildlife Conservancy. Ngwesi people implemented one of the first conservation programmes in this area after Lewa became a wildlife conservancy in 1995. In 2006 and 2007, Ol Pejeta Conservancy bought 802 cattle from Ngwesi
worth KSh 10,859,73818 (about 118,000 Euro, as per 2007). This source of income attracted other communities too. Over the course of 2008 and 2009 OPC purchased a total of 796 cattle from eight additional communities. The total number of cattle purchased from the northern communities by OPC since inception of the programme has been 1,965.

ORGANISATION OF THE PROGRAM

From the beginning NRT, Lewa and OPC worked directly with pastoralist communities to establish and meet certain conservation and livestock management standards, financial transparency and community governance.

Establishing regulations for pastoral areas is a critical component of conservation. Many communities have thus developed grazing bylaws, which designate “core” conservation areas where livestock are not permitted and “buffer” zones, where livestock are permitted only at certain times of the year and in certain grazing blocks. This system prevents the ecosystem from becoming overly

<table>
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<tr>
<th>CONSERVANCY</th>
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<th>PURCHASES PER YEAR</th>
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TABLE 1: Purchases of Livestock (2006-2009)
stressed due to unmanaged grazing; encouraging environmental regeneration and eventually attracting increased numbers of wildlife. In some areas, cattle graze on the same rangelands with wildlife. To curb predation, night-time predator-proof paddocks are erected where the cattle are kept at night. These paddocks are mobile and rotated with time.

The pastoral communities under the NRT conservancies are expected to work in community-managed groups and keep livestock numbers to acceptable limits as set out by OPC. OPC then responds to these standards by purchasing community livestock and eventually selling the high-quality meat on premium markets. This links marginalised pastoralist communities to markets that pay higher prices than traditional markets, and reduces the need for excessive drought-prone herds and sets incentives for better rangeland management.

FURTHER ACTIVITIES

The Linking Livestock Markets to Wildlife Conservation programme seeks to channel both communities’ motivation and awareness through programmes aimed at improving rangeland management, implementing livestock monitoring.

LIVESTOCK TRAINING

Periodic workshop and rangeland tours are held for members of community grazing committees. NRT held the first workshop in October 2007, which was attended by grazing committee leaders from nine community conservancies. The members discussed challenges, best practices and future plans regarding their conservation efforts and toured the rangelands of Ngwesi, Sera and Kalama to learn about the livestock management techniques in those areas.

MONITORING AND TAGGING

An effective monitoring and measurement system is a key component of ensuring that the communities participating in the conservation programme benefit from cattle sales to OPC, while providing valuable data for livestock and rangeland analysis. Livestock monitoring can help ascertain an animal’s ownership and state of health, in addition to providing information on herd dynamics and pasture conditions. The information is then linked to a database that stores information on sales, pricing, and other cattle details such as origin and vaccination histories.
The Ngwesi Conservancy has introduced a tagging system for its herds using RFID (radio frequency identification devices) ear tags purchased by NRT. These tags, which can withstand extreme weather conditions, provide permanent identification for individual animals. The database records the names of cattle’s owners with corresponding ear tag numbers, animal’s locations, origin, sex, age, weight, class and vaccination history. By December 2009, a total of 3,426 cattle from the Ngwesi Conservancy had been tagged.

LUXURY TOURIST LODGES

While livestock production will continue to be an important source of income for pastoralists in the northern communities, elders at many conservancies acknowledge that alternate forms of livelihood are also needed. To this end, most of the conservancies have established some form of tourist infrastructure, with eight conservancies operating tourist lodges that brought in a total income of KSh 17,764,264 in 2009. Altogether these lodges employ 118 people, with almost 100 more employed indirectly. Additional lodges are currently under development at Ishaqbini and Sera, with plans for more at other conservancies.

RESULTS, FUTURE OPPORTUNITIES AND CHALLENGES

Community leaders in most of the NRT conservancies have recognised their responsibility and the connection between better livestock management, wildlife conservation and successful eco-tourism. They have acknowledged that better livestock management would have to entail a reduction in the size of their herds and/or an increase in the quality of the cattle offered for sale. They are also well aware that wildlife numbers in their areas will not increase without better management of cattle grazing areas. This is a critical issue for them as six out of the seventeen conservancies operate luxury tourism accommodation on-site, of which wildlife sightings are an important component.

BENEFITS OF THE LIVESTOCK TRADING TO THE COMMUNITY

Since the pilot programme began at Ngwesi, a marked improvement has been noted in both the quality of livestock offered for sale from the various community
conservancies and the management of grazing lands. Community leadership has demonstrated a continued interest in learning best livestock management practices.

In terms of conservation, although improvement has been a gradual process, key environmental indicators have been positive. Within three years of its inception, ground vegetation cover has increased at Ngwesi, and the numbers of key wildlife species have generally either increased or remained constant. The community has been able to reinvest some money received from cattle purchases in separate business ventures, such as the community lodges and extensive tourist infrastructure.

As a result of the livestock trading programme, the settled and semi-nomadic communities have benefited mostly through:

- Marketing of their cattle: Ol Pejeta, through its abattoir, is able to offer competitive prices throughout the year. The communities are therefore better off economically;
- Improvement of cattle: Ol Pejeta has good commercial bulls and cows on offer to upgrade the community stock. As such, the communities are able to get a better herd through this upgrading, and thereby fetch better sale prices;
- Ol Pejeta’s livestock personnel are on hand to offer assistance with disease problems and their control. This ensures communities are not losing their livestock owing to preventable and curable diseases;
- Ol Pejeta has provided grazing to some northern communities in times of drought. Northern Kenya experienced several cycles of drought in the last few years. Ol Pejeta and Lewa Wildlife Conservancy enable communities to rear their herds successfully during otherwise unmanageable times by providing grazing grounds;
- Ol Pejeta has rehabilitated 3 cattle dips in the community areas and supplies the acaricides and expertise.

**CHALLENGES AND OPPORTUNITIES**

Despite the successes achieved through the project, a number of interventions are still required to raise living standards and economic empowerment of northern Kenya communities. To begin with, the creation of incentives for communities to participate in wildlife management, conservation and tourism initiatives is crucial. Also, it is important to develop tourism products that are appropriate to the context and culture of the region.
In general, the strengthening of the marketing of tourism in the region, both domestically and internationally is of great importance to further attract tourists to the remote areas of northern Kenya. Furthermore, incentives for groups or individuals willing to invest in tourism in ways that deliver sustainable benefits to local communities need to be created. The facilitation of access to skill (training) and capital (micro-loans) for communities wishing to develop tourism-related products and services, including community-owned enterprises or conservancies is another challenge that will have to be met in the upcoming years.

Establishing a livestock enterprise fund, which meets the needs of livestock producers and traders, administered through commercial banks would hold a great opportunity. The promotion of financial services that are culturally acceptable in the context of the Islamic religion would be important, same as exploring how national funds could be channelled through these.

Also, the development of financial services relevant to the needs of the region (such as index-based insurance) should be supported. In the long run, it is imperative to develop mechanisms to attract long-term capital inflows to finance large-scale investments in the region.
SPECIFIC WILDLIFE AND LIVESTOCK RELATED CHALLENGES

Further challenges include conservancy related issues, regional challenges and a broadly based mixture of policy implications. In summary, there are specific ecological, cultural, economic and political realities that define what is possible and achievable in northern Kenya. The policy implications of these realities are illustrated in Table 2.

DROUGHT MANAGEMENT AND CLIMATE CHANGE

Reducing poverty through well-planned development strategies, such as those described in the case study will minimise the negative effects of drought and strengthen people’s capacity to adapt to climate change. In the context of

<table>
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<tr>
<th>REALITY</th>
<th>POLICY IMPLICATIONS/ GOVERNMENT INTERVENTIONS</th>
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<tbody>
<tr>
<td>A REMOTE REGION, with rudimentary transport, energy and communications system</td>
<td>• Incentives to attract investors to the region. • Strategies to strengthen national cohesion. • More concerted efforts with regard to public information and extension.</td>
</tr>
<tr>
<td>A DISPERSED POPULATION scattered across a large area in relatively small settlements</td>
<td>• Higher per capita cost of service delivery, meaning there need to be alternative • approaches to extension and community organisation • Potential for technology to overcome the challenge of distance.</td>
</tr>
<tr>
<td>A MOBILE POPULATION, for whom mobility is a rational response to environmental conditions</td>
<td>• Innovation in service delivery methods • Flexibility within the design of national initiatives, such as the census, household surveys and policy polling days. • An arid environment, with a distinct livelihood system (pastoralism), and a population vulnerable to drought and the impact of climate change Framworks to negotiate mobility across borders, both domestic and international.</td>
</tr>
<tr>
<td>A SOCIAL SYSTEM that places a premium on communal patterns of decision-making and ownership</td>
<td>• Decentralised management of land and natural resources. • Alternative/ hybrid systems of justice • Reconciling individual and group rights (e.g. with respect to gender).</td>
</tr>
<tr>
<td>AN ARID ENVIRONMENT, with a distinct livelihood system (pastoralism), and a population vulnerable to drought and the impact of climate change</td>
<td>• Environmental and social impact assessments of all interventions. • Investment in risk reduction (drought &amp; conflict management) and social protection programmes. • Adaption strategies for climate change.</td>
</tr>
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**TABLE 2:** Realities and Policy Implications
pastoralism, strategies are needed that reinforce pastoralism and prevent the overstocking of livestock and continuing ecological degradation. This should, however, be complemented by strategies to help the growing town-based population find viable non-pastoral jobs for living.

ACCESS TO MARKETS

There is need to explore marketing windows not just for the live cattle but for livestock products such as milk. Other products such as camel milk and meat, which may have high price or nutritional advantages should also be publicised. It is also necessary to identify countries of significance for livestock marketing and promote market opportunities.

Community leaders at many conservancies are also looking at smaller-scale opportunities for diversifying income and reinvesting from livestock production. A reliable market for the communities’ cattle would also allow the use of cash for opening small stores selling groceries, household goods or veterinary products.

CONFLICT MANAGEMENT

Conflict management has turned out to be crucial to settle disputes about grazing areas between semi-nomadic tribes. Effective conflict management and negotiation mechanisms between resource users can contribute effectively to the success of the project.

Addressing the problems of human/wildlife conflicts, for example, through better management of wildlife corridors and fair compensation schemes is a prerequisite to make the Linking Livestock Markets to Wildlife Conservation project sustainable and profitable in the long run.

INFRASTRUCTURE

There is an imperative need to improve the infrastructure necessary for both investment and security reasons. The large size of the region means that infrastructure investments in different sectors should be well coordinated in order to reinforce each other and deliver maximum benefits (for example, water run-off and roads, or energy and ICT). The location of the region presents possibilities for cross border collaborations in infrastructure development with Ethiopia and Somalia.

A more robust infrastructure in northern Kenya will stimulate investment and growth. It will create jobs, reduce poverty, improve terms of trade and lower...
the cost of doing business. In parts of neighbouring Ethiopia, public investments in roads and extension have increased consumption growth by 16 percent and reduced poverty by nearly 7 percent (Dercon, S. et al. 2007). Better infrastructure will stabilise the region, improve security, and strengthen its integration with the rest of the country. By equalising investment and creating opportunities for social interaction, it will reduce the feelings of separation between the people of the North and other parts of Kenya.

SOCIAL IMPACT

Even though conservancies’ challenges have changed over time they are still very much based on the local and regional constraints and potentials discussed earlier in this case study. Nonetheless, Linking Livestock Markets to Wildlife Conservation has had a significant social impact. Firstly, the programme generates income for remote communities in northern Kenya, therefore integrating them into economic cycles and giving them access to markets.

Through trainings offered by NRT – periodic training seminars and workshops on business skills and financial literacy – the communities have improved their economic capacities. Furthermore, the attitudes of the communities in the northern frontiers have changed drastically and they fully realise the potential of and participate in wildlife conservation as part of their lives. Therefore - and through controlled grazing initiatives - wildlife could be conserved. Through increased wildlife populations, the area has become more attractive for tourism, which in return produces jobs and income for the entire region.

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