

AFRICAN CONSERVATION CENTRE

**Maasai Livelihood and Household
Sources of Revenue Report**

Survey Report

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September 2015

“A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base; - capital is a social relation between people, not an attribute of rich or poor households or individuals”

DfID, 1999, Section 1.1; Scoones, 1998, and Carney, 1998,4

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ACRONYMNS

ACC	African Conservation Centre
ASAL	Arid and Semi Arid Lands
AU	African Union
CBO	Community Based Organization
CSO	Civil Society Organization
GDP	Gross Domestic Product
IGAD	Inter- Governmental Authority on Development
MM	Millimeters
NGO	Non -Governmental Organization
TME	Tarangire –Manyara-Ecosystem
TNP	Tarangarire National Park
SMS	Short Message Service
US	United States

1.0. ABSTRACT

Understanding the complex relationships and causes of threats to sources of income and livelihoods and the prevailing poverty among the Maasai of Kenya and Tanzania is a necessary first step toward informed and effective policymaking and interventions as well as community food security and poverty reduction initiatives. This overview paper provides a glimpse of the interplay between policy and legal regimes and the challenges that this community has to grapple with in seeking incomes and livelihoods from household to community levels. It has four general objectives: (1) to generate a report of key cases; (2) to highlight data bases including information on key respondents; (3) generate context dependent indicator variables; and (4) to propose variables common to Kenya and Tanzania that can be used for comparative purposes. The paper suggests that the main determinant of Maasai wellbeing can only be equated to livestock wealth juxtaposed against household and community needs with an eye on the key pillars of pastoralism. The paper notes that the main driver of Maasai pastoralist income and livelihood vulnerability is as a result of policy and legal frameworks, threats to the pillars of pastoral production system and climate variability. It concludes that there is need for Kenya and Tanzania to domesticate continental and regional policy frameworks for pastoralism as a foundation for generation of policies and legal frameworks that appreciate, value and support pastoralism not only as a source of income and a livelihood system but also as a key pillar of economic development based on the sector's contribution to the two countries Gross Domestic Product (GDP) where the sector accounts for at least 14% of the ¹GDP in Tanzania and about 10% in Kenya. In addition, the pastoralism sector provides vital social, cultural and ecological services that have ensured the survival and thriving of fauna and flora and a vibrant culture that is the selling angle for the wildlife based tourism industry – a key contributor to the economies of the two countries. In the two countries it emerged that pastoralist collection of data, analysis, and storage is not consistently adequate. In certain subsectors such as drought management, relevant information is available for dissemination and use in disaster management in Kenya but there is generally inadequate information on pastoralists and pastoralism that would be critical in planning, institutional memory and improvement towards best practices such as monitoring and evaluation of pastoralist risks trend analyses.

Disclaimer

The views expressed in this study are strictly those of the author and do not necessarily reflect those of its sponsors and funders.

¹Ced Hesse: Tiempo Newswatch: Climate Change and Pastoralism

2.0. SYNOPSIS

The design of this study can be described as a grassroots based natural experiment that adopted a rural approach aimed at bringing out the views of the subjects while not losing sight of literature on the same. The Maasai of Kenya and Tanzania while living in different nation states are one community existing in different national regimes therefore confronting diverse social, political and economic realities. This paper therefore relied on a standardized questionnaire tailored to suit the Maasai context with special emphasis on cross-border information and the social, cultural, economic and political dynamics. The authenticity of the study data used in this paper is representative of the views and feelings of the Maasai pastoralists from a broader perspective of similarities and diversity in the context of cross border realities. The major handicap is the lack of official data and statistics that renders the desk review narrow in seeking to paint a clear picture of the situation of this community in both Kenya and Tanzania. Most of the literature reviewed for purposes of this survey was based on studies undertaken in Kenya and Tanzania by researchers and scholars such as Prof. John Galaty, 1981; Helmut, 1995; Ibrahim and Ibrahim, 1995; Bekure et al, 1991 among others that presented a clearer picture of the Maasai pastoralists income sources and livelihoods. The data in this report is not conclusive due to the aforementioned reasons and therefore should be looked at from the perspective of the narratives from respondents and the literature that was examined. The main indicators of social-economic wellbeing among the Maasai in Kenya and Tanzania must be looked at through the livestock lenses since livestock forms the bedrock of Maasai existence from the services that livestock provide as opposed to monetary terms in order to provide a foundation upon which future work can be based to bring out long-term intervention outcomes. Within the study sites in both Kenya and Tanzania, livestock remains the key feature as a source of income and livelihoods with 100% of the Mara and Laikipia, 99% of Loita, and 98% Amboseli households in Kenya and 100% of Tarangire, 98% Endoimet, 100% Natron and 96% Loliondo households in Tanzania. In addition, about 95% of all households in these areas look at livestock as a key source of wealth with diversification in terms of crop growing generally being more of an after- thought or test case activities. In all the study areas this action analysed available literature on household surveys and used questionnaires and most importantly formal and informal semi-structured interviews with selected community members. The focus was to understand the community basis of their income and livelihoods as pastoralist without losing sight of the key pillars of their production and economic system. The important variables that emerged from community informants from each study area that would be important for any future work on this community include; (1) availability of land and livestock resources, (2) livestock numbers/herd sizes; (3) family size, and (4) access to alternative sources of income and livelihoods

3.0 BACKGROUND

The Maasai of Kenya and Tanzania form some of the most well publicized pastoralist communities in East Africa. They are often described as the people of the “cattle complex” because their existence is based on livestock production. For the past 100 years, the social –economic situation of the Maasai has morphed in response to a variety of factors ranging from colonization, independent nation states’ policy and legal regimes, the cold-war affiliations, introduction of cash economy, land tenure changes, introduction of western education and formal employment as well as demographic trends that have shaped the social-economic situation of the Maasai community in Kenya and Tanzania. The Rift valley that hosts the Maasai cuts across Kenya and Tanzania that provides striking resemblances for the two nation-states ranging from climatic regimes, demographic trends, natural resources and well as colonial history. However, the key differences are remarkable based on Kenya’s post-independence capitalistic and Tanzania’s socialist inclinations made famous by state intervention in and ownership of the economy, a reduction in reliance on agricultural exports, and forced villagisation (*ujamaa*) of the rural population (from Barkan, 1994). Maasai pastoralism forms part of livestock production that is characterized by an intricate traditional governance system, utilization of land and natural resources including fodder, water and minerals and livestock herds that has defined the habitation of Kenya and Tanzania’s marginal and variable climatic zones (Galaty and Johnson 1990-*emphasis added*). Maasai pastoralists’ generally subsist wholly or in part upon their animals, and have for millennia made efficient use of available resources in Arid and Semi Arid Lands (ASAL) by using livestock to convert grasses and browse into animal protein to be consumed by people (Pratt and Gwynne 1977; Dyson-Hudson 1980; Lamprey 1983). Livestock serve many roles in pastoral society: as both the means and outcomes of production, as sources and objects of labor, as values, and as social, cultural and capital goods (Galaty and Johnson 1990). Pastoralists have adapted to the inherent and historical risk of climate variability in ASAL. Further, Livestock and wildlife have coexisted for thousands of years providing alternative income to Maasai through wildlife enterprises including tourism thereby providing living proof that traditional pastoralist strategies sustain wildlife as well as livestock. However, land excisions and other restrictions on resource access as a direct influence of national production and development policies and frameworks present new risks that decrease resilience and system stability base of Maasai pastoral production, livelihood safety and income regimes in Kenya and Tanzania. Climate change is expected to increase variability, further amplifying these risks. Human land-use strategies simultaneously determine and are determined by ecological patterns and processes, with wider linkages to political and economic drivers (Burnsilver et al. 2003). The drivers of land use changes are ultimately population growth, economic expansion, social and environmental human displacement, and poverty. The complex contexts of change must be thoroughly considered, or implications and cause and effect may be misinterpreted. Drivers are both additive and interactive, creating a complicated set of outcomes for people, their livestock, the physical and vegetative environment, and wildlife. All of these forces influence the current trend of land-use change, creating a context for the pastoral land-use and policies. Pastoralists have used the arid and semi-arid lands (ASAL) of Tanzania for millennia (Spear and Waller 1993). Because Tanzanian pastoralists share landscapes with wildlife, the policies that generally have the greatest impact on them are those that protect wildlife,

either directly through wildlife policy, or indirectly through land use policy and land tenure decisions that are usually made at the national level.

The national-level divergence in policies between socialism in Tanzania and capitalism in Kenya are highlighted within Maasai land. In Kenya, the impact of the Group Ranch programme has had profound implications for Maasai access to land and subsequent economics and livelihoods. Land tenure and conservation policies form an important context for contemporary pastoralist land-use patterns, as well as for household incomes and livelihoods. These in turn have strong implications for ecosystem integrity and sustainability. Feedbacks between pastoralist land use, and other alternative land use and production systems, and wildlife populations are often negative. One such land use is cultivation, which is increasingly used by pastoralists and others on the Tanzanian and Kenyan landscapes. Maasai transhumant land use has been widely contested since before the creation of game reserves and national parks in the 1950's. While extensive livestock herding as practiced by traditional Maasai is now generally accepted as being compatible with wildlife (Nelson 2000), cultivation in these ecosystems is still not believed to be consistent with wildlife conservation goals (McCabe 2003; Boone et al. 2006). Lambin et al. (2003) confirms that as 60,000 hectares of Serengeti-Mara rangelands were converted to mechanized agriculture during the period 1975-1995, the total wildlife population simultaneously declined by 58%. Lambin's study determined that land conversion to agriculture was driven by markets and national land tenure policies, while associated changes in wildlife numbers were driven by the location of cultivation in critical wildlife resource areas. In the Tarangire-Manyara Ecosystem (TME) of northern Tanzania, several forces have acted to disrupt historical ecosystem function, and sustainability, thereby increasing the vulnerability of both wildlife and human populations. Wildlife in and around Tarangire National Park (TNP) had documented declines from 1988-2001, with wildebeest declining by 88%, hartebeest declining by 90%, and oryx declining by 95%. With the rapid increase in human settlement and introduction of mechanized agriculture in the Maasai landscape in Kenya and Tanzania and imminent and already implemented land privatization, it is indisputable that wildlife populations and livestock will decline significantly in the next decade. Per capita livestock holdings on all the study sites have been on the decline based on the frequency of droughts, lengthy famines, decreasing space and livestock resources and unfavorable market dynamics. This has forced a small proportion of the Maasai to diversify their livelihoods to generate revenues from tourism, small scale agriculture and land-leases for mechanized cultivation. However, there is a massive imbalance in tourism incomes in favour of a small elite thereby making this alternative unresponsive to income and livelihood needs of the whole community.

4.0. METHODOLOGY

Literature review and interactive process with Maasai villagers were undertaken in Kenya and Tanzania for an in depth understanding of livelihoods and sources of revenue with

the main purpose of supplementing the quantitative study with on-the-ground details, which was not possible from quantitative findings of issues related to transhumant pastoralist livelihoods and revenue sources in a broader community context. It involved empirical investigation of combinations of modes of livelihood and, above all, of the relationships between them. It also involved broadening the limits of understanding changes in the borderlands of northern Tanzania and southern Kenya that have taken place over time.

The approach deliberately interrogated the structural, historical and institutional elements responsible for the changing contexts of community sources of incomes and livelihoods in macro and micro contexts. The time-frame window that was adopted was about 50 years from the transition of Kenya and Tanzania from colonial rule to independence in the 1960's with an eye on key variables and important trends of change proceeding from an overview of policies at the centre to rapid assessments at the villages and then reversion to the centre.

Further, semi-structured interviews and key informants were undertaken and further exploration of specific identified issues. Much emphasis was attached to the analysis of rural pastoralist Maasai livelihoods and sources of income in the study areas. For instance; in determining the percentages in the contribution of livestock to livelihoods and sources of revenue; respondents were asked to indicate the roles of livestock on a scale of between 0 and 10 or 0 to 100, this approach proved useful to the community and data collectors that led to useful basic quantitative data being gathered from participants, but the principal techniques were those associated with literature review.

However, emphasis was laid on the community's own definition of their circumstances, needs and outcomes aimed at integrating an element of community experiences on incomes and livelihood trajectories from households to local communities, regions and nation states. This was informed by community members daily lives and experiences and broader exploration of the constraints that limit their functioning and capabilities in the context of sources of revenue and livelihoods. In addition, the process involved examining secondary information available at institutional and country levels that provided a broad picture of the regional trends and informed the interrogation of inter-nation-states differences and the socio-economic indicators.

5.0. MEASURES OF WEALTH AMONG THE MAASAI

In the course of this survey, it emerged that the definition of poverty among the Maasai runs contrary to the universally accepted focus of one American Dollar (1US\$) a day and

instead focuses on such aspects as landlessness, childlessness, lack of livestock among others; however, in principle the measure of wealth among the Maasai is based on livestock herd size and family size. This is critical as it provides vital aspects in measuring localized determinants of wellbeing as opposed to universal standards. It is equally important to juxtapose the community definitions with national and global measures of wellbeing in order to achieve a clear picture of the scope and magnitude of income and livelihoods among the Maasai pastoralists.

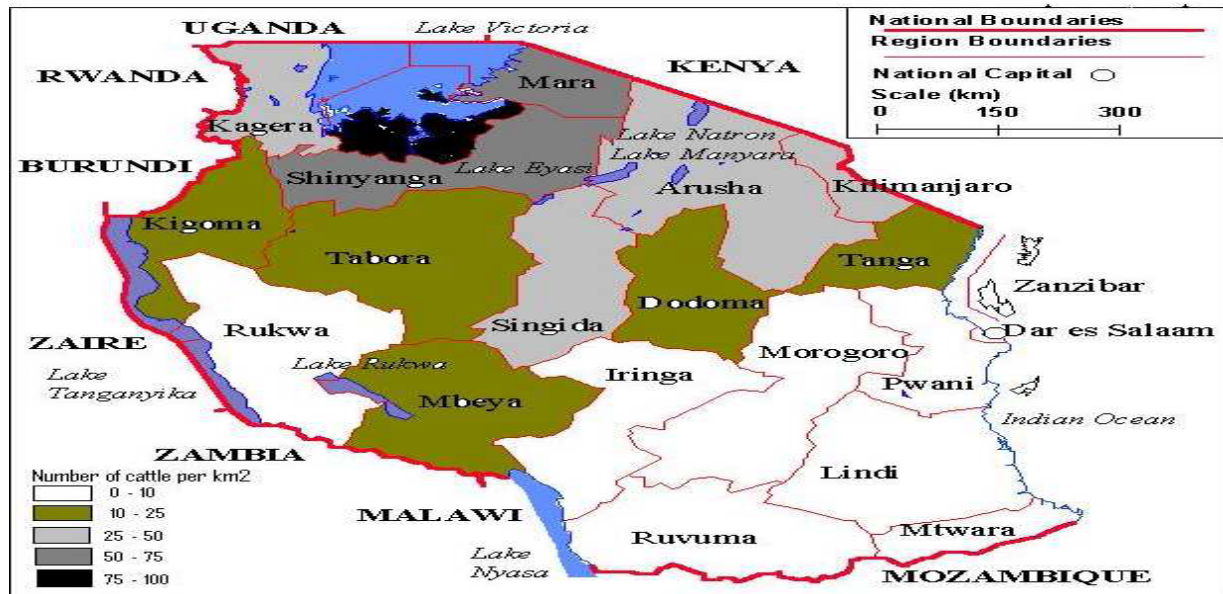
5.1. Diversification Patterns

Across Maasai land in both Kenya and Tanzania large-scale privatization of the rangelands for both commercial and conservation purposes has undermined the productivity and viability of transhumant pastoralism. Instinctively, the decreasing returns of this production system has forced the Maasai at community and household levels to explore alternative or supplementary income and livelihood options aimed at food security and poverty alleviation. Diversification often involves a change along one or more of the following dimensions; an expansion of the set of income sources, a change in the key sources of income, and/or a change in location. Across the study sites in both Kenya and Tanzania, livestock continues to feature as a source of income with 100% of the Mara, Laikipia, Amboseli and Loita households, 100% of Endoimet, Natron, Loliondo and Tarangire, households having cattle, goats and sheep. Most important, for all households in the focus areas, livestock continues to be the main source of income and livelihoods. However, despite the centrality of livestock to the Maasai, an emerging mosaic of livelihood portfolios confirms that the community is gradually diversifying into other activities. While Maasai pastoralists across the wealth spectrum are diversifying in response to the changes in land tenure regimes and climatic conditions; diversification trends are demonstrably different across different spheres of wealth. Due to the reduced capacity of the rangelands to support pastoralists, poorer households who lose their livestock are less able to recover the losses during favorable periods. As such, the poor are forced to engage in other income earning activities out of necessity. Better off households, on the other hand, diversify in order to balance risks, buffer shocks and spread investments across a wider portfolio to maximize earnings potential. Every household in the areas of the survey in some way has evidence of diversification mainly through employment, engaging in income generating activities such as small businesses and crop growing that are non-traditional. However, the proportional composition of household income is dominated by livestock revenues with mean annual household income being closely related to the proportional contribution from livestock. For both Kenya and Tanzania, despite their very different circumstances, it is clear that wellbeing is primarily associated with livestock.

5.2. Summary of Endoimet, Natron, Loliondo and Tarangire in Tanzania

These zones are predominantly semi-arid and receive between 400-550 mm of rainfall annually between December and March. Pastoralism serves as the social-cultural-and economic foundation for the Maasai pastoralists, although there is some crop cultivation i.e. maize and beans as an income and livelihood supplement strategy especially by those resident on the foothills of Mount Kilimanjaro at Endoimet, Loliondo, and the eastern slopes of Ngorongoro. However, livestock and livestock product sales mainly provide households with monetary

Distribution of Cattle Population in Tanzania



Source; Ministry of Livestock and Fisheries Development

5.3. Institutional and Policy Environment relating to pastoralism in Tanzania

35 out of 40 respondents from the four zones representing 87.5% of those contacted blame the negligible performance of the pastoralist livestock sector as an economic and social development foundation to lack of an enabling environment in terms of policy and legal frameworks in Tanzania. Indeed, majority of respondents confided that pastoralism is viewed as a ‘menace’ with government using such terms as “*nzige/locusts*” to describe them at the highest policy and governance levels in the country. Further, they asserted that pastoralists quest for their land rights can be traced back to the period immediately after independence where a report on management of range land which was commissioned by the government and supported by the World Bank came with a suggestion that pastoralism should be changed to modern ranching system. This brought about the enactment of the **Range Development and Management Act 1964** (No. 51 of 1964) entitled “*an Act to provide for the conservation, development and improvement of grazing lands*” as the means to establish Range Development Areas and a Commission charged to rehabilitate, conserve, develop and improve natural resources in the area which failed to recognize; (i) people [communities]; (ii) livelihoods [livestock] and (iii) traditional governance that form the pillars of pastoralist production that also serve as the vanguard to ecological and wildlife conservation. Eventually, this law could not achieve the intended objectives as it lacked ‘a human face’ and public participation in its formulation and therefore marked one of the policy and legal framework failures relating to pastoralism in Tanzania.

The enactment of the national land laws in 1999 and the National Land policy in 1995 still portend myriad challenges to Maasai pastoralist a number of issues on pastoralist such as incidences of the pastoralists' customary title, recognition of traditional land management institutions, the fact that land can be transferred by the President under 'public interest' where it is to be used by investors, the fact the 'Pastoral Title' appears to inhere in the individual rather than the collective. This led to the enactment of various laws that seem to address Pastoralist issues in details, these laws are;

- The Livestock Identification, Registration and Traceability Act, 2010 (Act No. 12/10) which was enacted in order to provide for the establishment of the National Livestock

Identification, Registration and Traceability System for purposes of controlling animal diseases and livestock theft, enhancing food safety assurance; to regulate movement of livestock, improve livestock products and production of animal genetic resources; to promote access to market and to provide for other related matters.

“Maasai income and livelihoods differ between families; there are extended families and smaller families. Mostly extended families comprises of elders with more than one or two wives and an average of 15-20 children. Providing for these dependents demand that a cow is sold on a monthly basis to provide for food supplies such as maize flour and other necessities and meet other costs associated with daily survival of the family in the village. Whereas the Maasai do not provide exact figures in terms of livestock wealth or children, most family heads –that are considered rich have about 200 heads of cattle and 400 sheep and goats across Maasai land. A few might have more but on average they range between these figures. Among those that are considered poor, they have on average of 40 cows and 70 to 100 goats and sheep. Mostly we Maasai sell our livestock to cater for our needs and to make some money. The money is also used to buy food and other supplies that are required by the family; on average large families sell a cow monthly which fetches about 400,000 Tanzania shillings which is enough to meet the financial needs of these families. The poor sell a sheep or goat each week on average that fetches about 30,000 to 40,000 Tanzania shillings depending on the market rates and seasons and this is used to provide for family essentials and have some little money set aside for emergencies. However, for the well to do families, crop growing is also used to supplement livestock products and those in formal employment also support their families. However, on average about 15% of family livelihoods and income needs are met by crop production. On the other hand, remittances by siblings in employment account for about 45% of family livelihoods and income needs. In hard times, we get food support from government and other agencies like the World Food Programme.” – 65-year-old village elder– Hasidi Ole Marau from Enkare Sero (Natron).

- The Grazing-Land and Animal Feed Resources Act, 2010 (Act No. 13/10) enacted to provide for the management and control of grazing-lands, animal feed resources and trade and to provide for other related matters. The main purpose of this Act is to commercialize livestock keeping, it fails to see Pastoralism as a system of livelihood for a substantial number of livestock keepers and commercial activities that exist being an exception rather than the rule.
- Other related Pastoral legislation includes The Animal Diseases Act, The Veterinary Act, The Hides, Skins and Leather trade Act, The Animal Welfare Act.

“Women among the Maasai do not own a lot of animals and they therefore form the majority of community members that engage in alternative sources of income and livelihoods such as crop growing, bead jewelery trade and selling milk and other items to complement livestock products. However, some men do engage in crop growing but they are perceived as miserable by their counterparts and that is why most of them shy away from such ventures. My eldest son is employed in one of the tourist camps in Tarangire and his monthly financial support has ensured that not many animals are sold to buy provisions such as sugar, salt and maize flour. However, for such major requirements as medical services, my family which comprises of three wives and eighteen children, a cow has to be sold to cover such expenses. We cannot grow crops where we live because of wildlife from Tarangire and therefore other than the support we get from my son, we dependent almost entirely on our livestock for survival and development which is affected by droughts and famines and restrictive laws that prohibit grazing in the protected areas. The average number of animals sold per year is about 10 cows and 20 sheep and goats, in bad times it is difficult to recover these because birthing is constrained but in good times, these animals are recovered quickly because birthing is frequent and therefore we do not feel the loss”; 54-year-old, Namanu ene Tialal from Tarangire-interviewed in August 2015

Despite the existence of these legislative frameworks the pastoralist land tenure remains largely undefined and issues of rights to access and hold and communally manage remain elusive. Grazing ranges in Tanzania have the characteristics of *terra nullius* “No man’s Land” due to this lack of clear legislative safeguard and customary land title is only recognized if the land is formally registered according to stipulations of the Village Land Act.

5.4. Summary of Laikipia, Mara-Loita and Amboseli in Kenya

These areas form part of Kenya's arid and semi arid lands that cannot support sustained and reliable crop production. The key ecological features include climatic conditions that are marked by low yearly rainfall (about 250-600mm), which shows high variability, both in space and time, coupled by year round high temperatures. These climatic conditions result in short growing seasons often randomly scattered in space and time and low pasture. These areas are however inhabited by a rich diversity of flora and fauna that are adapted to these conditions. The plants, which constitute pastures, are the main source of feed for pastoral herds. Maasai pastoral system therefore utilizes this ecology by converting the vegetation into useful animal products such as milk and meat on which the pastoralists depend for livelihood and income. The main source of income for households is pastoralist livestock keeping, with close to 98.0% of households engaged in this particular activity both as a social-cultural and economic preoccupation according to 38 respondents. Alternative crop farming is practiced by about 2% of households' in response to the vagaries of nature and as a means to supplement dependency on livestock and livestock products. Among the Maasai in the target areas, employment is emerging as a legitimate form of alternative income and livelihood system which has significantly reduced pressure on livestock for household upkeep. Further, in Amboseli, Laikipia, Mara and sections of Loita eco-tourism activities have also emerged as a means of complementing livestock dependence for household upkeep. Respondents confirmed that each village has a relative or member engaged in some form of employment which has reduced dependence on livestock by about 43%. On average, household and family incomes and livelihoods are measured according to the size of livestock herd. In the target areas, household livestock numbers range between 50 (20 cows and 30 goats and sheep) and 400 (100 cows and 300 sheep and goats) across the Loita-Mara, Amboseli, Laikipia axis. In good times, cattle fetch between 10,000 and 30,000 Kenya shillings which is enough to meet household needs for one month depending on whether the family is monogamous or polygamous. On average; monogamous families sell one cow or four sheep or goats each month while polygamous families sell two cows or six sheep or goats per month depending on pressure for money. The money is used to purchase supplementary foodstuff such as maize flour and to pay for school fees and hospital bills. After drought maulings, those households in the lower echelons of income seek employment and use the money to build new herds while those in the higher echelons maintain a manageable herd and re-stock after such incidences. Further, whereas eco-tourism activities such as conservancies are predominant in Laikipia and Mara; those in the lower cadre of income complain that the earnings are often in the hands of a small elite and the formula for distribution is not known. A small section of the community engages in agricultural activities but maintain livestock herds as a form of personal and family pride and a measure of wealth especially in the Mara and outlying areas that are suitable for agriculture. In bad times, the well to do suffer loses estimated between 40% and 60% while those in poor quotient suffer between 60% and 100%.

6.0. POLICY ENVIRONMENT

The Government of Kenya has in place a National Drought Management Act to highlight practical and preventive strategies in addressing disaster situations. Other supportive policies that seek to address disaster risk reduction through programmes and projects or provide an opportunity to the reduction of disaster risk are Livestock policy, ASAL policy, peace building and conflict management policy, National Land Policy, National Land reclamation policy, policy framework on nomadic education, Food Security and Nutrition policy, Irrigation policy and Vision 2030, and the new constitution of Kenya, among others.

6.1. Institutional Constraints

Whereas there exists an enabling constitutional and policy framework there is a lack of understanding on the key characteristics of the most appropriate institutions to deliver livestock services to the poor and use livestock as a tool for pro-poor development and economic growth. An assessment of the quality of the pro-poor focus of the most important livestock services in Kenya reveals that the entire livestock service system often focuses on areas in the proximity of the urban zones, neglecting the more remote marginal and poverty stricken areas, because of the high transaction costs of delivering services to the poor in such areas. Moreover, their main focus is often still on increased production for food self-sufficiency, rather than on equitable growth, based on comparative advantages of commodities or species. For the specific services some key weaknesses are:

- **Animal health** services still mainly focus on ranches, whereas pastoralist keep both cattle and small stock, these have traditionally focused more on local and field efforts to control diseases rather than a broader health certification of animal and animal products;
- **Breeding services** often focus on the use of exotic breeds and their crosses, whereas Maasai pastoralists need the resilience that local breeds can provide, particularly if advised on how to improve production through proper management of local and environmentally adapted stock;
- **Extension services** often put the emphasis on crops and arable farming, as extension agents are often unfamiliar with pastoral technologies;
- **Credit services** do not have the suitable financial instruments for pastoral development, with its longer term credit needs and the lack of collateral, in particular for the common property based pastoral production systems;

“Amboseli is predominantly pastoralist and dependence on livestock for income and livelihoods is high. Farming is not viable because it will reduce the land available for livestock and wild animals and there is the risk of human wildlife conflict because of crops and the fact that some animals are not in the park but within community grazing areas. What is required is for community members to be compensated for harboring wildlife and proper measures be put in place to ensure that livestock products have good markets in Kenya and abroad in addition to women being encouraged to engage in tourism activities and selling of jewelry in a properly regulated way which will ease the pressure on livestock for income and livelihoods”-57-year-old Namanu ene Malit – a resident of Amboseli – interviewed in August 2015

- **Research services**, just as animal health and breeding services, often focus on large animals and imported breeds in high potential areas, and not emphasize the type of animals and the environments relevant to the poor; and;
- **Information services** are often still using the traditional methods of dissemination, such as technical publications in formal languages, while more suitable channels (radio, electronic, and SMS) in more appropriate local languages are often not available. These will be required not only for local dissemination of information but also for collection and distribution of data

- 1) National policies that continue to² distort the development context in which sustainable pastoralist can thrive, such as price subsidies that encourage farmers to expand into rangelands; economic development policies that do not provide incentives and opportunities to pastoral production systems.
- 2) Land tenure laws that discourage or distort common property ownership, management, access as well as pastoral mobility.
- 3) Land use planning policies, and land use planning regulatory frameworks that continue to encourage sedentarisation and individualisation of land and resources and restrict pastoral participation in democratic and transparent planning processes;
- 4) National economic policies that restrict pastoralist movement across boundaries and restriction to access the protected areas which often harbour important resources for pastoralist economy. Additionally pastoralists especially those in the Maasai Mara face arrest, confiscation of their herds when they stray into the game reserve yet during the wildebeest migration they spill over to pastoralist grazing areas forcing families to move their herds away to avoid the contaminated grass as a result of wildebeest calving. Despite creating room for the wildebeest which brings Kenya huge monetary benefits, pastoralists get nothing in return for these services.
- 5) Lack of knowledge of successful models for mobile pastoralist service delivery, including health, education and financial services, as well as appropriate marketing and productivity improvement techniques/technologies adapted to extensive pastoral situations.

“One of the strategies that the Maasai of Laikipia are using to supplement dependency on livestock is to engage in Conservancy business. Our young people are getting employment and the returns are playing a big role in meeting household and family financial needs which is important because our animals are not the main source of livelihood and income and therefore can be spared for hard times. From the start of these alternatives, most families have seen their herds increase from about 20 to 40 cows and this is good for honour and wellbeing. However, there is still prevalent risks to Maasai livelihoods and income because of lack of value for livestock compared to those in the ranches, there is therefore need for livestock services and regulated markets to enable pastoralists compete at the same level with producers of tea and coffee”, -70 -year-old Parmuala Ole Kampi – a resident of Laikipia North – interviewed in August 2015

² Pastoralist Development Network of Kenya policy briefing paper for the Pastoralist Parliamentary Group; 2013

- 6) A gradual erosion in many facets, of pastoralist traditional knowledge, customary rules and regulations, and social capital, which have occurred as a direct result of the barriers and root causes
- 7) Perception of pastoralist lands as idle and underused hence the target for extractive activities such as oil, gas, geothermal, solar and wind energy as well as major infrastructure projects.

7.0. CONCLUSION

The confluence of Maasai production system, market trends, ecological requirements and policy environments continue to pile pressure on transhumant pastoralism and undermine this social-cultural-ecological and economic system that has subsisted in the rangelands for millennia and ensuring the survival of man and nature. There is overwhelming evidence that the centrality of livestock in this system is what differentiates it from other animal production systems like ranching. The social and cultural system of Maasai pastoralists revolves around livestock and the key pillars that sustain it. A pastoralist is therefore a person whose means of livelihood is mainly tending to, grazing and or browsing animals. The levels to which the livelihood is dependent on livestock vary with location, socio-economic, environmental and policy factors. Policy and legal frameworks in conservation should be designed in such a way that they support pastoralism and play a complementary role in terms of income and livelihoods. Further, commercial and state interests in Maasai land in Kenya and Tanzania must address the threats facing pastoral production with special focus on poorer households in these areas. In addition, voluntary and social-culturally sensitive diversification should be encouraged as a means to close the income and livelihood gaps and as a response to the unpredictable climatic conditions. The two states through their policy making mechanisms should be guided by the *African Union Policy Framework for Pastoralism in Africa* in generating policies and legal frameworks that recognize, promote and protect pastoralism as an important economic and ecological sector necessary for the realization of the countries' development and economic blue prints as livestock remains the most important component of income generation and secure livelihoods among the Maasai.

8.0. ACKNOWLEDGEMENTS

In the course of generating this paper, a lot of support was received from John Letai of Laikipia, Etirr Nalengo' of Pastoralist Development Network of Kenya, Simon Lanki and Agnes Mberai from Tanzania who were instrumental in data collection. Special appreciation also to all pastoralist organizations, scholars, researchers and friends of pastoralists who have generated invaluable information that is in an important way influencing and informing the gradual shift in perceptions about pastoralists and pastoralism not only regionally but globally. Further, sincere thanks go to I-CAN programme partners who provided genuine and invaluable review of the first draft of this paper. Finally, I am grateful to the I-CAN Programme and African Conservation Centre for providing me with the opportunity to undertake this task.

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