

**AN INVESTIGATION ON THE EFFECTS OF INDIVIDUALIZATION OF
LAND TENURE ON LAND USE PATTERN IN PASTORAL AREAS:**

A CASE STUDY OF LEMEK LOCATION NAROK DISTRICT

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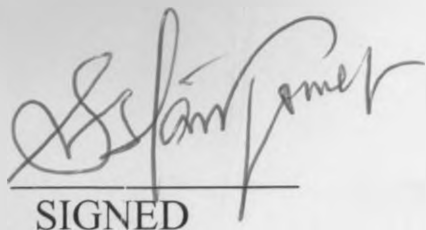
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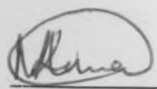
I Koriata Stanley Koinet declare that this project is my own original work and has not been presented for a degree in any other University.


SIGNED

25th June 2004
Date

DECLARATION BY THE SUPERVISOR

This project has been submitted for examination with my approval.



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DEDICATION

Dedicated to pastoral communities

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ABBREVIATION

KHRC	Kenya Human Rights Commission
KLWT	Koyiaki Lemek Wildlife Trust
OOWCA	Olchoro Oirowua Wildlife Conservation Association
G.O.K	Government of Kenya
CBS	Central Bureau of Statistics

ABSTRACT

The project investigates the effects of individualization of land tenure on land use pattern among pastoral communities with specific reference to Lemek location of Narok District. The area was previously a Pastoral zone but is now experiencing changes where other forms of land uses are emerging bringing to the fore the systematic socio-economic changes that are taking place within the pastoral set-up.

Pastoralism is an old activity probably as old as the pastoral communities, which practice it over the years. The various socio-economic and political interventions that have taken place over the years since the coming of white settlers have led to positive changes to the land use in the area of study.

Land ownership has undergone several phases of change. At independence the native reserves were administered through trust land Act that was entrusted to local authorities as trustees of the community land falling within its jurisdiction. Later on Land (Group Representatives) Act [CAP 286 of 1968 revised 1977] was introduced in the Pastoral areas of Kenya to *assign definite property rights to specific ... groups so that the consequences of misuse and return to investments in future productivity are made specific, to the holders of those property rights;* (Davis, 1970 in J. Holland).

The present system, which is believed to be the best type of land tenure, is the privatisation of land ownership through the process of adjudication and registration of land.

The study comprises both quantitative and qualitative data that will be collected by the researcher through interviews, questionnaires, field visits or obtained from relevant published and unpublished literature.

The study found out that the group ranch members themselves initiated Group ranch subdivisions to individual titles in Lemek. This removed the communal nature of land holding and controls giving the landowners the freedom of choice as far as their intended use of land and its management are concerned. This encouraged landowners in diversification of land use to other activities such as crop production and wildlife tourism

CHAPTER 1

1.0 INTRODUCTION

Basic dilemmas in pastoral society are the situation brought about by natural increase in population and animal population (domestic and wildlife) against a finite resource base called land. The situation is so serious since the only known source of livelihood in most pastoral societies can no longer support everybody and therefore the need to diversify in order to make ends meet.

Other factors such as socio-economic interactions, changing lifestyle can be linked to changes that are taking place in the area. It is therefore imperative that there should be clear understanding of the effects of individualization of land tenure on land use pattern in pastoral areas.

The land tenure amongst the Maasai was communal and no individual owned land. All community members used Land communally. After the coming of the white settlers land Tenure in the whole of Kenya changed tremendously from communal holding to individual holdings in most areas. The various forms of ownership manifested over the years brought new land use pattern, which is currently taking shape.

1.1 PROBLEM FORMULATION

Land throughout the history of man has been a very important and special resource as it forms the basis of all human existence. Before the advent of colonialism, almost all communities in Kenya had their social and economic organizations based on land. Various groups of people either practices simple forms of agriculture or were hunters, gatherers, pastoralist, etc.

Until the coming of the Europeans to East Africa the Maasai people were made up of diverse, usually autonomous and geographically separate groups, sharing common language, and culture. Each section had its own territory and autonomous political structure; each locality was a self-contained ecological and social unit, which managed its own affairs.

A number of self-regulatory mechanisms built into the Pastoral mode of production have enabled these societies to maintain themselves through time (Hapland, 1976). The mechanisms were supported by natural calamities, which slowed down the net growth rates both in animal and human population for instance the rinder-pest and smallpox epidemics in eastern Africa in the 1880's.

The tenure of land amongst the Maasai was communal and no individual owned land; although people are given, chance to utilize land in the manner that is acceptable to the rest of the community.

After several hundred years of what seemed to have been a self-sustaining and well-balanced mode of pastoral production, Maasai society has recently undergone dramatic changes. During the last half-Century, however Maasai pastoralism has began to have detrimental effects on local environments due largely to progressive over-population, overstocking and overgrazing

that have resulted mainly from the loss of highly potential areas on which their traditional herding systems were formerly based. Paradoxically, much of the injurious effect has either been caused or exacerbated by poorly designed and highly erratic development schemes and policies that were imposed on them during this time (Jacob, 1975: 419).

A basic dilemma in Pastoral societies is the situation brought about by natural exponential growth in the human and animal population against a finite resource base.

In 1975 it was estimated that there were 164,000 Pastoral Maasai in Kenya occupying about 40, 000 square kilometers (Dhyani, 1993) their livelihood was based on nomadic pastoralism which refers to a way of life based on herding. It depended on mobility, which translates to insufficient resources for people and their livestock to stay in one place throughout the year.

Since the coming of the White settlers, the land ownership among the Maasai has undergone tremendous changes from communal land to individual ownership in some areas. With the rapid changes in land management, the community pastoralists are left with less control to land use pattern among the former communal land, which is now allocated to individual landowners who would determine the best form of use to put the parcel of land under his/her control.

The various aspects of ownership manifested over the years have brought new changes to otherwise Pastoral communities, new land use pattern are taking shape, and Pastoral-nomadic systems, which were previously based on delicate ecological and social interrelations, are starting to breakdown. Land that was previously used by Pastoralist during the harsher season is currently being converted to permanent agriculture and Wildlife conservation. In more recent times, the Maasai have lost additional, land through administrative decisions to keep them out of the wildlife areas, gazetted as national parks and national reserves for instance

Maasai Mara game reserve, Amboseli National Park, Tsavo National Park and Samburu game reserves.

The adjudication of pastoral areas thus portrays a serious implication both negative and positive to people still depending in pastoral activities for livelihood. Since a large proportion of the population has never been to school their income would definitely depend on livestock. However, as noted by (Holland, 1996) "Participation in formal education and employment often strengthen Pastrolism as it provides the resources other family members require to continue a more traditional existence."

It is therefore important to seek and establish the effects of land adjudication and consequent individualization of land tenure on pastoral land use patterns. The study seeks to address this question.

1.2 STUDY OBJECTIVES

The study aims to: -

1. Examine the changes in land tenure in Lemek location in the last 30 years.
2. Examine the changes in land use pattern over the last 30 years
3. Determine the effects of changes in land tenure on land use patterns.
4. Suggest ways of integrating the emerging land tenure system with appropriate land use patterns.

1.3 HYPOTHESIS OF THE STUDY

Individualization of land tenure has caused major changes in land use patterns in Lemek Location Narok District.

1.4 SIGNIFICANCE OF THE STUDY

Lemek is a unique area of study, since it is one amongst the very early areas of settlement of Maasai community, when they were moved from Nakuru and Naivasha areas to create room for the European Settlers. This later became one of most important areas for exclusive use for nomadic-pastoralism and wildlife grazing (Ottichilo, 2000: Omondi, 1994).

Prior to 1968, the land within the area was owned by indigenous Maasai people on communal basis and was held as a trust land for them by the local Authority (Gachugu, 1996). However, at the start of mid 1960's the status of land ownership was changed from trust land to group ranch through the land (Group representative) Act of 1968.

In 1986, a presidential decree on the land (Group representative) Act was issued, allowing for a subdivision and adjudication of ranches, into individual parcels thus; allowing private owners holding freehold titles to move in. This form of ownership, increases in human population, permanent human settlement, agricultural activities, wildlife conservation and tourism are increasingly putting a lot of pressure to the existing land use. The system of land tenure sets the context in which all these activities must operate. Thus, an investigation to the effects of land tenure systems on the land use patterns would be useful for the development of the pastoral areas sustainably. The study is important for land use planning and utilization.

1.5 RESEARCH METHODOLOGY

The study will rely on both primary data and secondary data. The primary data will be collected through personal interviews and as well as administering semi-structured questionnaires to various government officials, residents of the Lemek and interest groups in the area of study in order to obtain views regarding land adjudication and registration and the subsequent changes in land use.

The secondary data will involve the review of various written literature found in the libraries, government offices, and other organizations involved in the various aspects of concern on the subject matter.

The last stage of the research will involve personal observation and recommendation of the changes which have taken place in the region i.e. study area.

1.6 SCOPE OF THE STUDY

The study will cover Lemek location in Ololulung'a division of Narok district.

The study will be looking into the effects of individualization of land tenure on land use pattern in Lemek area. The issues to be covered include the historical background of land tenure before, through colonialism, and after independence. The various forms of land tenure reforms that have affected the area of study, incidental factors such as the demographic factors and geographical factors that have contributed in one way or the other to the change of land use will be analyzed. Information will be sought for the last 30 years.

1.7 ORGANIZATION OF THE STUDY

The study is organized in four chapters.

Chapter 1 - is the introductory chapter would consist of brief introduction problem statement, the objectives of the study, significance of the study, and scope of the study and research methodology.

Chapter 2 - Consist of literature review, which includes literature review, which includes literature on various land tenures, concepts of land use in rural areas, pastoral land use and pastoral economy.

Chapter 3 - Would dwell particularly in the study area and consist of land use in the study area, population geographical and climatical factors, data analysis and presentation.

Chapter 4 - Would be the final chapter that gives the finding of the research, conclusions, recommendations and areas of further studies.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

A man is the owner of his land ... but in so far as there are other people of his own flesh and blood who depend on the land for their daily bread he is not the owner; but the partner, or utmost the trustee for the others. Since the land is held in trust for the unborn as well as for the living and since it represents in partnership the common life of generations, he will not lightly take it upon himself to dispose of it. (Kenyatta, 1938:27)

Land is without doubt an important aspect of life of any society. In societies in which land is about the only available source of livelihood and material wealth, the rights that the ownership of it will confer on any individual or group are paramount. In Kenya the history of ownership of title to land is complex and starts way back to the colonial days when western powers had justification for colonialism i.e. civilization, Christianity, education etc. Although these reasons were given, it is important to realize that colonization was a logical development of capitalism.

Europe shared Africa between itself and laws were made to authorize the way things should be done in the colonies and this was through adoption of African order-in- Council of 1889, the British Protectorate authorities introduced English law in East Africa. The order-in-Council stated that jurisdiction should "so far as circumstances permitted be exercised upon the principles of and in conformity with, the substance of the law for the time being in force in England".

Land rights by virtue of Protectorate status needed to be looked into so that the British government could have radical title to land and it followed that Kenya was partitioned into two regions namely the ten mile coastal strip and the rest of the area. A series of land laws reforms that followed gave the colonial government considerable vast areas of land inherited from the indigenous African people for the exclusive occupation of European settlers.

In the process of colonialization, Africans were continually pushed to marginal land, small in area so as to create artificial land pressure and scarcity of land, which would impact on African areas forcing them to move to white highlands in search of employment (Chemelil, 1984).

Colonial land policies created a lot of landlessness especially in central and western Kenya.

The colonial image of African pastoralists was that they were unproductive because they kept excessive number of livestock that overgrazed and ultimately degraded the land (Charles Lane, 1996). The misconception about the nature of pastoralism has not only provided justification for its transformation but also alienation process as witnessed in 1904 treaty where a few Maasai leaders agreed to sign the treaty that removed them from Nakuru and Naivasha areas of Rift valley and a second treaty of 1911 which moved them from Laikipia highlands. In exchange, their southern reserve was extended to include what is now Transmara District. Throughout the colonial times, the Maasai continued relatively undisturbed to practice pastoralism in spite of efforts by colonial government to get them to de-stock and use modern livestock management (Fosbrooke, 1948).

2.2 THE CONCEPT OF LAND TENURE

The term land tenure is derived from the Latin word “tenere” which means, “to hold”.

Generally, tenure is a rights term or mode of holding. Tenure defines the social relations between people in respect of the object of the tenure, in this case land. “Those with tenurial rights have a certain social status viz a viz natural resource in comparison to those without tenurial rights to those resources” (Lynch and Acorn, 1994).

Land tenure defines the method by which individuals or groups acquire, hold or transmit property rights in land. Property rights may include a variety of different rights e.g. to use, to transfer, to build on, to mine etc. Commonly referred to as “bundle of rights.”

Formal rules of tenure define the nature, content of property rights, and determine how society will allow individuals or groups to hold property rights in land or other resources and the conditions under which those rights are to be held and enjoyed.

A land tenure system represents the relation of men in society with respect to that essential and scarce commodity –land. (Okoth- Ogendo, 1975)

2.3 TYPES OF LAND TENURE SYSTEMS IN KENYA

Land tenure systems in Kenya can be classified as customary tenure, "modern " tenure and public land tenure (Lynch and Arcon, 1984).

These systems have a direct effect, either individually or in articulation, on land use and management conservation of environmental resources.

2.3.1 Public Land Tenure

Public land tenure refers to the phenomenon of the government as a private landowner. It originated from the crown land ordinance of 1902 which declared "all waste and unoccupied land" in the Protectorate "Crown land". The concept of Crown land was defined by the 1915 Crown land ordinance to include land in actual occupation by the "natives".

In 1938, the Crown lands (Amendments) ordinance excised native reserves from Crown lands. These were subsequently vested in an Independent Native Land Trust Board by the native land trust ordinance of 1938. At independence, land in nature reserves became trust land under the Trust land Act (cap laws of Kenya) and was vested in the respective county councils which hold the land for the benefit of resident upon adjudication and registration such land ceases to be trust land.

2.3.2 Customary Land Tenure

In Pre-historical times, communities in today's Kenya had their own legal systems based upon their customs and practices. Elders or clan leaders who performed both civic and spiritual duties enforced these customs. The community determined powers exercised by clan leaders. These powers included keeping of peace, settling disputes, performance of rituals.

protection of gods and shrines and guarding against drought, famine and other disasters. The land tenure systems were communal; committees shared land under the authority and advice of community elders. Different persons could hold bundle of rights including access and grazing rights in the same land and group rights in land could be transferred from one generation to the next. Gender, age and position in the clan and the family were all factors that played role in decision-making.

Although the notion of land ownership as exclusive ownership did not exist in pre-colonial times, there was a difference between Primary and Secondary interest in land. Most of the tribal customs were based on patrilineal systems and the male elders usually managed the land. Communal land ownership is based on the principle that land is a free gift of nature and common asset for all beings. Every person has a right to use it and was recognized by the community, a factor that gives maximum security to the individual.

As (Nyerere J. 1967) put it "To us in Africa land was always recognized as belonging to the community. Each individual within the society had a right to use the land because otherwise he could not earn a living. But the Africans right to the land was simply the right to use it"

The aim of official policy since the middle of 1950s has been to systematically replace customary or traditional systems with "modern" tenure system through the process of adjudication of individual or group rights under customary land and their registration.

Customary land tenure systems in Kenya are a multiple one due to diverse multi-ethnicity of its population. Customary land tenure systems have also evolved due to the demographic changes, the intensification and diversification of agricultural production and climatic and ecological

changes. The dominant features in a customary tenure system are that individual or groups by virtue of their membership in some social units of production or political community have certain guaranteed rights of access to land or other natural resources (Okoth – Ogendo; 1979b: 97).

Rights of control are derived from sovereignty over the area. The control is for guaranteeing of access to resources, which is dependent on land-use type and the social organization of the community. Among the Kikuyu for instance, allocation of land rights and regulation of use was effected by the *mbaari* (sub-clan) (Chege Waiganjo, 1993).

In pastoral communities such as the Maasai, because of ecological constraints and need for wider access rights, control was located in sub-tribe. Resources that did not require extensive investment had to be shared. The regulatory mechanisms imposed by the community such as exclusion of outsiders, seasonal variations in land use and social pressure ensured sustainable resource utilization.

The breakdown in traditional authority brought about by the systematic imposition of the institutions of modern states has undermined the capacity of community structure that regulated land-use. Population pressure and tenure insecurity introduced by process of land tenure reforms have encouraged competition for access to land and other natural resources. The process of land tenure reforms has transformed the common property regimes to situation of open access with concomitant adverse impacts on land use and the conservation of natural resources.

2.3.3 Modern Land Tenure

Radical changes that have been deliberately initiated in tenure arrangements prior and after independence in African countries have been justified on the basis of the expected improvement in productivity, land-use planning and decision making which they would generate. The process of land tenure reforms initiated by the colonial government in Natives Reserves has conferred individuals and corporate entities exclusive property rights over parcels of land. Colonial legislation and post-colonial legislations outlines distinct stages in the process of land tenure reforms. This include ascertaining of individual or group rights under customary tenure, consolidation of all pieces of land over which each individual or group has a right and the allocation to individual or group of a single consolidated piece of several units, registration of existing rights and issuance of a certificate of ownership.

Land registration in the native trust areas (now trust land vested in the respective county council before registration) was done in regions with high agricultural potential such as central and western provinces and land with lower agricultural potential mostly arid and semi-arid part of the country where the dominant land-use is pastoralism.

A different form of registration system was initiated 1968 through the Land (Group representative) Act. Here the registration of group ranches was viewed as a compromise between individual ownership and the need for access to wider resource in dry lands. Under the systems, Communal land is divided into smaller units (Ranches), which are registered in the names of the group representatives elected by the members of the group. Every group member has rights in the ownership of the group land in divided shares.

The Registered Land Act Cap.300 lays down the legal framework that governs registered land. It provides that "the registration of a person as the proprietor of land vests in that person the absolute ownership of that land together with all rights and privileges relating thereto save for the over-riding interests".

Registration transformed the legal status of registered land from one susceptible to customary rights and interest to individual absolute ownership. The process also converted land into a commodity, which could be sold, leased, charged or mortgaged at the absolute discretion of the proprietor.

2.4 LAND TENURE SYSTEM IN KENYA DURING COLONIALISM

It is widely appreciated that land as a resource is unique in the sense of being significantly different from other factors of economic, social and political life. Land is a platform for almost all human activities from it we get everything we use or value be it food, clothing, fuel, shelter, metal, precious stones etc. It is a means of life without which human activities could never have existed and on which then continued existence and progress depends on. Land is part of nature fixed in location, immovable and incapable of expansion in supply.

Land ownership in Kenya has undergone various phases of development before it reached the present land ownership form of individualistic land ownership through the process of adjudication and registration where most fertile areas in Kenya have applied this system. The colonialist who arrived in Kenya towards the turn of the 19th Century introduced the system to Kenya.

The justification for colonization included civilization of "Backward Continent", Christianization of the Africans who were considered pagans, education opportunities, humanitarian grounds to stop slavery and slave trade etc. It is important to realize that the colonization was a logical development of capitalism due to the industrial revolution in the latter part of the nineteenth Century. The European felt that there was a need to acquire land where they could get new and cheap material resources for their new industries. The inhabitant of these new lands would also provide a market for their surplus goods.

There thus arose the need to control land acquisition and utilization by the colonialist so as to achieve their prime desires and objectives. One of the important legal themes was the desire to colonize legally; many of these countries involved in colonialism want to have laws to authorize the way things need to be done in the colonies.

The British government authorized the British East Africa Association to administer present day Kenya. In 1888, the Association became Imperial British East Africa Company and Kenya continued to be a sphere of influence until 1895 when Kenya became the British East Africa Protectorate.

The other major task at the time of the newly formed Protectorate was to acquire radical title to land and this could be done through conquest, agreements – (verbal), treaty and sale. They first divided the region into two portions namely the ten miles Coastal Strip and the rest – under natives. In 1887, there was an agreement between the Sultan and the British East Africa Association regarding the Coastal Strip, which was regarded as the Sultan dominion. It was agreed that the association was to administer the area. The Sultan vested all public lands in the association and the rest of 'Kenya' was to be administered by it on behalf of the British

government. The Indian Land Acquisition Act of 1894 was extended to Sultan dominion this was done under 58 of the 1884 Zanzibar order-in-Council and this order enabled the British government to extend certain Acts to land under the Sultan. By 1890, the Sultan dominion had become British Protectorate. The Act was extended to allow British government acquires land for public purpose. The same Act was extended to the rest of what was to become Kenya. However, this was done without judicial basis. The British government extended its foreign jurisdiction Act 1890 to apply to the colonies and therefore gives the crown power of control and disposition of "waste" and "unoccupied land". This was incorporated in the East African (lands) Order-in-Council of 1901 and Crown Land Ordinance of 1902. But, even, before these two statutes were operational, the East African Order -in- Council of 1887, which had been made under the foreign jurisdiction Act. This order applied the Indian land acquisition Act and the Indian transfer of property Act of 1882 in the East Africa Protectorate.

The Indian Land Acquisition Act enabled the authorities to acquire land compulsorily for the construction of the Uganda railway (Public Purpose).

The 1897 East African order-in-Council allowed the sale of freeholds within the Sultan dominion and elsewhere in the East African protectorate. The Uganda Railway Act of 1896 enable the acquisition of land for private use in railway zone the reason of this was to make sure that settlers use the railway for transport and thus enable the railway to pay for itself.

The 1901 East Africa (Lands) order-in-Council as well as the 1902 Crown lands ordinance vested what was termed as "unoccupied" and "waste land" in the Crown Land. Through this order, the Crown could give leases and freeholds to land. As of 1902 there were fundamental changes to property jurisdiction in "Kenya." The Theory of eminent domain was extended to

property where Crown owned the land in the Protectorate. Formal dualism introduced property relations and law- One for Africans and the other for the Whites.

The introduction of a tradition instruments in the legal process, where everything was justified if it was formally legal. Notices were advertised and issued after the introduction of 1902 Ordinance. In order to attract settlers there was added incentives in the way of free land grants and flexible development conditions attached particularly on leases. There was also absolute freedom for the settlers to decide whether to settler in the colony or not.

The crown land ordinance of 1902 was repealed in 1915.

When this new Crown land ordinance (1915) was enacted it provided for registration provision. It declared;

1. All land as Crown land
2. Abolished freehold but established 999 years' leaseholds with an option to purchase the remainder and therefore have freeholds.
3. Introduced explicit discriminatory practices in colonial agriculture i.e. non-Africans were not to manage land in Highlands without governor's consent.
4. Inter-racial transfer of land required the governor's consent
5. All public auctions of land were to specify whether non-Europeans could bid.
6. Ensured that natives were tenants at Crown until their land could be leased.

The British for instance recognized that some individuals owned land previously at the ten-mile coastal strip and that is why the land title ordinance of 1908 was passed. Its purpose was to adjudicate the claims of those people who had private lands. The identification of such land

was mostly done in mosques and therefore most land was registered under Arabs and Islamized Africans. Many Africans had their land registered under other people's names.

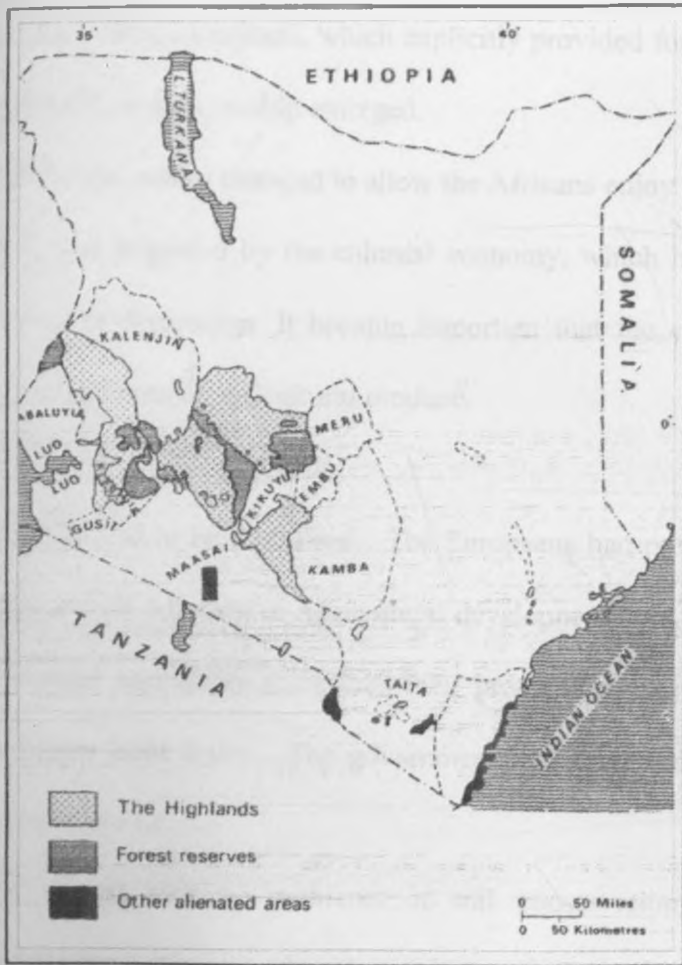
The Colonial government created twenty-four land units called "native reserves" and their administration was placed in government controlled Native Land Trust Board. Such land in reserves was not in theory to be taken by the settlers.

The reserves boundaries were, guaranteed by the colonial government through the Native areas order-in-council of 1939.

In African reserves customary land tenure continued to be in use. Colonial law gave Africans beneficial ownership of land therefore these policies created a lot of landlessness especially in central and western Kenya; Because of the resulting landlessness, a commission was formed in 1930 to look into the Land Situation in Kenya, this was the Carter Commission. It reported back in 1934 after listening to the people concerned. The Carter Commission recommended: -

- Fundamental revision of colonial land law
- That it was necessary to strengthen the separation, which had been developing i.e. Land Law for natives and Land Law for Europeans.

The Native Land Ordinance of 1938 was passed and removed the reserves from the ambit of the 1915 Crown land ordinance and vested it in the Native Land Trust Board. Secondly, the 1915 Crown land ordinance was amended so as to set up Highland Boards meant to administer the White Highlands. See Plate 2.1



Location of White Highlands.

SOURCE: Frank Furedi (1990). *The Mau Mau War in Perspective*. Heineman, Nairobi.

Map 2.1 Locations of White Highlands.

In 1939, there were two orders-in-council, which explicitly provided for the boundaries of the two areas. Dual system of land ownership emerged.

In early 1950s, colonial land policy changed to allow the Africans enjoy individual land tenure. The change in policy was triggered by the colonial economy, which had fallen into general disarray due to the 1930s depression. It became important that the colony had to achieve internal self-sufficiency in terms of agricultural produce.

All agricultural potentials had to be mobilized. The Europeans had previously said that they did not want to compete with Africans in Agricultural development and that their contribution was sufficient for colonial agriculture since then their production was very low hence their argument could no longer hold water. The government was forced into looking problems besetting African Agriculture i.e.

1. The government started tackling problems of soil conservation, water supply, and landlessness by initiating settlement schemes.
2. Settlements schemes where it involved reconditioning and preservation of land through soil conservation, prevention of overgrazing etc. The betterment schemes failed to impress the peasantry and it failed
3. Agronomic experts argued that the best way to approach African agriculture was to examine African land tenure and to see how best it could be improved so as to be the basis of viable agriculture

African land tenure, which they characterized as communal, was seen as not being

Favorable to proper land use and rapid agricultural development because: -

1. The structure of access to user rights encouraged fragmentation thus cutting down on returns on labor and time.
2. It was conducive to incessant disputes thus acting as a disincentive to long-term capital investment.
3. It was not easy to get credit for agricultural production.
4. African land tenure had inheritance procedures, which encouraged sub-division of land.

The Agronomics experts argued that proper husbandry is impossible to achieve in the context of African land tenure system and thus recommended, as a long-term measure that African land tenure system be overhauled and be replaced by an alternative tenure based on consolidation and individualization of land holdings.

The East African Royal Commission was appointed between 1953 under the chairmanship of Sir Hugh Dow. The commission was formed as a government response, to avert a looming disaster as African were demanding for land aggressively.

Its report was the first one to officially sanction the revolutionization of African land tenure.

The report advocated for individual ownership of land.

“Individual Tenure has great advantages in giving individuals a sense of security in possession and in enabling buy, purchase and sale of land an adjustment to be made by the community from present, unsatisfactory fragmented holdings to units of economic size”.

The Commission believed that:

- 1 The psychological feeling of owning land would catalyze the owners to expand a lot of work into Land in contradiction to a situation where land is owned by a clan or family.
- 2 Individualized holdings would facilitate proper farm planning
- 3 Consolidation and farm planning would ultimately produce enough development opportunities for those who did not have land as a consequence of individualization
- 4 Registration will convert African land into marketable commodity, which means that title can be transferable and chargeable for securing development credit. It is also argued that with security of title there is incentive to develop the land.

The arguments of the East Africa Royal Commission were based on an old assumption in capitalistic economy where it is believed that individual proprietorship in itself will generate industry and enterprise

The Swynnerton Plan 1954 recognized that individualization would involve far-reaching changes in the society that may be unpalatable e.g. landlessness and mal-distribution of resources. It also recognized that there would be likelihood of rural indebtedness.

The Commission failed to make, independent decision and, it was seen to be a mere rubber stamp, of a decision already taken by the colonial government. Moreover, when the commission was doing its work, individualization had already started in the Gikuyu country as early as 1956 there were the native tenure rules made under Native land Trust ordinances, which allowed consolidation of land in Central Kenya. The plans revolutionize African land tenure and completely changed the course of Kenyans land law, which changes continue up to present day. Swynnerton advocated the introduction of title based individual land ownership

He said that "Sound agricultural development upon a system of land tenure will make available to the African farmer a unit of land and a system of farming whose production will support his family... He must be provided with such security of tenure through an indefeasible of his farm and as will enable him to offer it as security against such financial credit as he may wish to secure from such sources as may be open to him"

He argued that under the system where there are many fragmented units in different areas. " It is impossible in such circumstances to develop sound farming nations, to apply manure, to establish and manage grass --- if by suitable reforms to the system land tenure and inheritance, these fragment can be amalgamated by the Africans into economic farming units by applying sound and intensified. Farming methods these are lands which will yield the greatest return to the economy of Kenya given a suitable injection of staff and finance"

On the question of fragmentation he said that in respect to communal lands, immediately and before inheritance has a chance of creating fragmentation condition must be created to ensure that subdivision does not take place below economic level"

(A plan to intensify the development of African Agriculture in Kenya. Second impression government printer, 1955- page 9-10)

The Swynnerton plan proposed that only land consolidated could African agriculture become productive.

The plan therefore was to be implemented to realize objective and also because of the real threat of the Mau-Mau emergency. The plan was concerned with raising both production levels and levels of income for African farmers. It prescribed guidelines for careful land use

planning which were aimed at providing each holding with enough food for subsistence plus a cash income from crops i.e. coffee, tea etc

Gibson Kamau Kuria(1978) argued that “individualization of tenure was a measure of defeating Kenyan nationalism” because it made possible the creation of a conservative class of land people. This group acted as a buffer zone between the landless and the White farmers. Land was largely registered in the Loyalist names that were a measure to punish those who had gone to fight in the forests.

The commission overlooked other factors such as –

- Members of the ethnic African-societies hold land for subsistence
- High productivity and social justice are not only achieved by individualization of tenure
- Individualization of tenure will lead to twin evils of land speculation and absentee land-lordism.

2.5 LAND TENURE AMONG THE MAASAI PASTORALIST

2.5.1 Customary Land Tenure

The form of land ownership (tenure) in the pre-colonial period was that of communal ownership where the community controls all the area and an individual has the rights to use the land but could not alienate or sale.

The Maasai were traditionally organized in a number of distinct tribes or section each occupying a specific territory with its own autonomous political system based on organized age-set organization. These sections were crosscut by clan organization as well as age-sets so that members have different age-set and clan was found in several sub-tribes.

Each sub-tribe organized 1st age-set separately and individual male heads ... families secured rights to communal grazing and water within their tribal boundaries.... Families of one Maasai sub-tribe were prohibited from grazing their herds in the territory of another without first securing the latter's approval. Though in periods of drought or famine there was often institutionalized sharing of each others resources and occasionally some changing of tribal affiliations families generally grazed solely within their own sub-tribal territory and were prepared to defend these boundaries by force, if necessary, against unauthorized intrusions (Jacobs, 1975; 414).

Within the sub-tribal territory, a number of secondary units were found. These secondary units were self-contained ecological units including permanent water and both wet-season and dry-season pasture.

The secondary units were the basis of the traditional Maasai herding system (use), which, in general terms, involved movement of herds and family from permanent high potential dry season pastures reserves based on permanent river to temporary outlying low potential wet-season grazing areas, based on rain ponds and other temporary surface water supplies.

It is thus evident that locality or secondary units and not the tribe, was important unit for maintenance of relations within Maasai society. Locality, more than any factor displayed characteristic of corporate group. Individual families secured rights to communal resources only by common residence within the same locality over long period of time and by regular participation, involvement in local obligations or activities.

2.5.2 Trust Land Tenure

Trust land emergence was a response of the colonial government to the African agitation for land and equal treatment in the 1920s. The Hilton Young Commission of 1929 was established to examine the African land question and reported that the Colonial government's relationship to the natives should be one of trusteeship, which called for the government to ensure the satisfaction of the natives land requirement. This however caused dissatisfaction and later Carter Commission was established, to reconsider the land needs of the natives. It recommended, *inter alia* that "native lands be not styled Crown land but 'native land' the *nuda proprietas* being deemed to lie with the native population generally, but vested in trust subject to the sovereignty of the Crown and its general Powers of Control."

Further, it recommended that the tenure of each reserve should be built on the basis of the native custom obtaining therein. These recommendations were implemented by a series of legislative instruments such as the Crown land (Amendments) ordinance which amended the definition of Crown lands as to exclude native lands and reserved certain areas of Crown land that is native reserves for specific tribes in the Native Land Trust Ordinance.

The ordinance, therefore gave some level of recognition and protection to indigenous tenure in the native areas although they conferred power upon the colonial government to acquire parts of the native areas for public purpose.

Colonial agronomist in the 1950s felt that certain characteristics of indigenous tenure systems were obstacles to agricultural development and as such, they recommended that indigenous tenure system prevailing in the native areas should be overturned and replaced by individual tenure.

The condemnation of Indigenous tenure took several forms. A working Party in African land tenure was set up in 1957 to report, *inter alia*, on suitable version of freehold system for the native areas. Its report led to the enactment of Native Lands Registration Ordinance in 1959, which at Independence became the Registered Land act. Before land was consolidated and/ or adjudicated, and registered. It remains part of the reserves and was held under a trust administered according to the Native Lands registration ordinance of 1938, now the Trust Land Act.

Trust land are areas where adjudication process has not been effected, indigenous tenure is still the predominant form of tenure, this however, is transitory, in the sense that such areas are just awaiting adjudication and registration.

Approximately 65% of Kenyan land today falls under the category of Trust land (KHRC, 1997:3). Most of this land is situated in northern Kenya, arid and semi – arid Part of the country, which was considered less, endowed with agricultural potential where the common land use is pastoralism.

Upon independence, all lands designated as “native reserves” or “special areas” during colonial time were categorized as Trust lands Act (Constitution of Kenya Article 114).

All Trust land was vested in county councils who must hold the trust land within their area of jurisdiction for the benefit of the residents on that land.

Any resident tribe, group, family or individual on that land has the right to occupy, use, control, access and possess it under African customary law (Constitution of Kenya, Article 115). However a County Council may set apart an area of a trust land for public purpose and

the grounds for settling a part of Trust land are: -

If it is for the use and occupation: -

- (a) By a public Body/ Authority for public purpose
- (b) Minerals or mineral oil extraction
- (c) By any person (s), for the purpose which in the opinion of the Council is likely to benefit Persons; ordinarily resident in that area, or any other area of trust land vested in that Count Council, either, by reason of the use to which the area so set apart is to be put, or by reason of the revenue to be derived from the rent in respect thereof. (Constitution, Article 117 (1), Trust land Act, Section 13) No right, interest or other benefit under African customary Law can be given effect so far as this customary Law is “repugnant to any written law.” This explains that other written law such as Land Adjudication Act of 1968, Land consolidation Act of 1959 etc are superior and once individual adjudication, titling and registration have been completed customary rights over that land are extinguished.

2.5.3 Group Ranching

Group ranch development begun in the mid of 1960s and was mostly completed in 1980.

Group of people mostly men were registered as legal owners of individual tracts of land ranging from 50 – 1,000 Kilometers (Galaty, 1992).

The basic rationale for the development of group ranches in pastoral areas of Kenya has been to “assign definite property rights to specific groups so that “the consequences of misuse and the returns to investment in future productivity are both made specific to the holders of those property rights (Davis, 1970:2:3).

The underlying objective of group ranch development in Kenya was to create a framework for development that would give the pastoralist an increasing say in his or her own destiny.

Control over land in the form of grazing rights under traditional pastoral Maasai system was vested in the tribe section. This unit was, however, noted to be too large to provide effective control of stocking rates and movements between pastures. It therefore follows that establishment of group ranches has thus to create smaller groups both in terms of land and people.

The group ranch formation starts when land adjudication Department declares an area an adjudication section open for registration. This adjudication section is usually a location the smallest administration unit in Kenya.

It follows that an adjudication committee is to be elected by the local pastoralists usually composed of the traditional leaders or elders from within the section.

All claims to land rights within the adjudication section must be validated by this committee; individuals who want private individual title to land must also register their claims with the committee.

Boundaries for group ranches are also established through the local adjudication committee and approved by the District Range Planning officer taking into account the ranch's ecological viability.

The social groups are identified as the basis for group ranch formation.

Once the boundaries are established, people from within this section are invited to register for membership. The committee must approve membership on the group ranches. The committee's decision may be appealed within 60 days. After expiry of this period, the adjudication documents are sent to the Registrar of Group ranches that grant title deeds to both group and individual ranches.

After a group ranch has been registered, specifying a set of people (group ranch members) and plot of land, it is incorporated in a business enterprise, which can hold property, acquire debts etc. Normally the official of the group is between three members to ten registered group members elect members and the official will act as Legal trustees of the ranch corporate. The group representatives may or may not be elected as Ranch committee members (officials).

The official elected to manage the group affairs consist of a chairman, secretary, treasurer and other members. The General Assembly of all the group ranch members must adopt a ranch constitution, which a standard document is based on the Land (group representatives) Acts Laws of Kenya Chapter 287, with a number of by-laws drafted to fit the circumstances of each particular group ranch.

The incorporated group ranch includes three different bodies:

- The General Assembly, which should meet at least once every 15 months. The assembly has wide powers i.e. must have a legal quorum of 60% of the members attending
- The Group Representative, who are the legal trustees of the ranch
- The Ranch Committee, which is the executive organ responsible for implementing the ranch development plans.

2.6 PASTORAL LAND USE AND ECONOMY

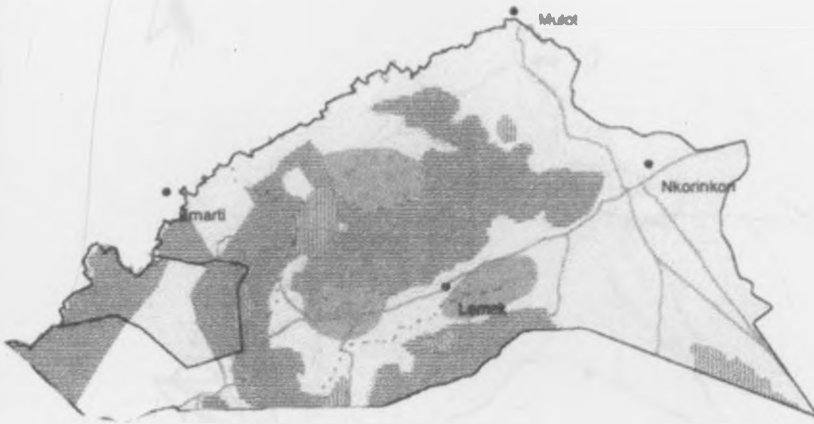
Topography, hydrology, soils and climate are treated with vegetation as the factors that help determine pastoral land use. At present, other factors such as political, social, economic and cultural practices are determinants. Pastoral land use is very much an adaptation to the natural environment. Map 2.2

Pastoralist is reliant on the quantity and condition of natural pasture for the grazing of their livestock. The grazing resources are made up of grass, trees and shrubs, forage, water and salt. Herders have to ensure that their animals have regular access to water. The distances to water source should be such that the livestock can graze to the water source and back before nightfall to the safety of the homestead at night. During the dry seasons, animals/ livestock are watered on alternate days. Salt is a crucial grazing resource. To keep the livestock healthy, they are taken to the salts source at least once a month at various salt lick points. Livestock ingest the salt by licking it on the ground, drinking saline water or eating species of forage at the lick side, which are known to be rich in salts. The geographical location and quantity of grazing resources combine to determine each forage regime in particular time in the year, when it offers best production. The quantity and quality of forage is mainly controlled by climate and more particularly by the amount of sunlight that stimulates the growth. Rainfall is also the most important variable. It affects the amount of herds to be taken different watering points. Herders tend to exploit certain areas at a particular time of the year because they understand that these areas are not only more productive at those times but also that pastures need time to recover if they are to be fully productive at later date. Herd movement, therefore, tends to follow a seasonal pattern as illustrated in Maps 2.3 – 2.5

Livestock need to maintain good health productivity therefore; they require variety of herbage to cover all their nutritional needs. It is necessary for them to have access to different areas at different times. This requires that a herder make quick decision to capitalize on the suitability of grazing resources sometimes moving his herd over great distances for only a short period. Assessment of pasture is made by household head with a thorough knowledge of environment attained at regular visits of inspections, skilled interpretation of climatic signals, and listening to information provided by others (Charleslane, 1996).

Pastoral economy is based on livestock production. Pastoral production is organized around cattle rearing. Cattle are the focus of the economy because of their role as providers of milk for subsistence. Milk is consumed by household and is not regarded as a commodity for trade. However, cattle themselves are traded to obtain cash to secure other goods and services. In this way, cattle provide subsistence and commodities. Pastoralist also keeps sheep and goats. Donkeys are also kept and are making important contribution as transportation means.

Cattle are important for several other reasons the pastoral communities. Utilization of cattle as a legal tender for most social and economic transactions, compensation and fines are paid in form of cattle, as well as bride-wealth and inheritance is an important aspect of the pastoral economy. Gifts of cattle to friends and kinsmen also serve to cement social relationships and political affiliations.



 Location Boundaries

Rivers

 Permanent

 Semi-permanent

 Roads

 Contours

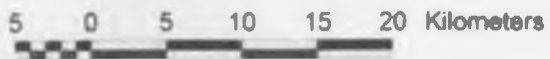
 Towns

Grazing types

 Grass with no water

 Wet season use

 Tsetse Belt



Livestock grazing constraints and potential

Map 2.2 Livestock Grazing Constraints and Potentials

Source: KLWT and OOWCA, 2001



□ Location Boundaries

Rivers

Permanent

Semi-permanent

△ Roads

Contours

• Towns

Livestock Movements

↘ Late dry season

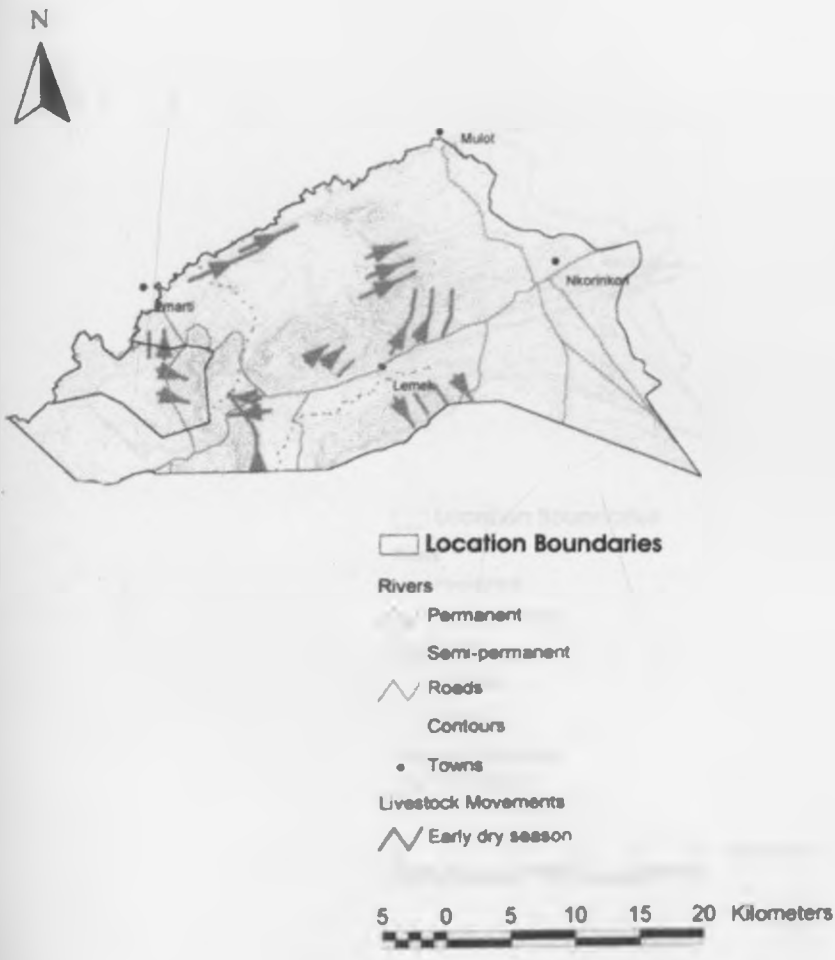
5 0 5 10 15 20 Kilometers



Livestock grazing: late dry season cattle movements

Map 2.3 Livestock grazing: late dry season cattle movements

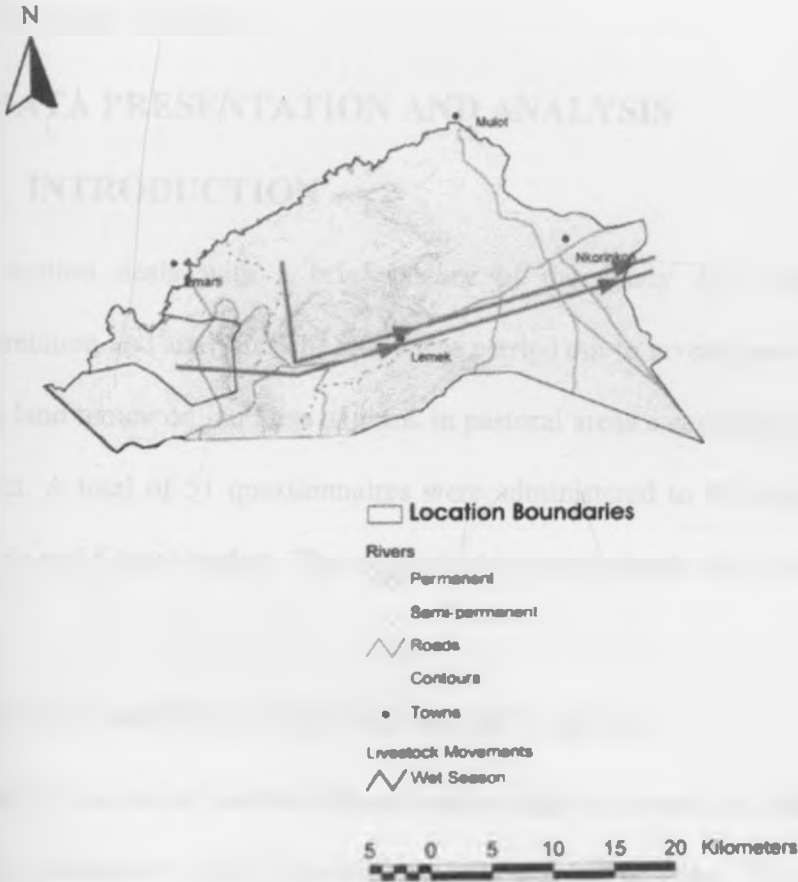
Source: KLWT and OOWCA, 2001



Livestock grazing: early dry season cattle movements

Map 2.4 Livestock grazing: early dry season cattle movements

Source: KLWT and OOWCA, 2001



Livestock grazing: wet season cattle movements

Map 2.5 Livestock grazing: wet season cattle movements

Source: KLWT and OOWCA, 2001

CHAPTER THREE

3.0 DATA PRESENTATION AND ANALYSIS

3.1 INTRODUCTION

This section deals with a brief history of the Study Area presentation data collected interpretation and analysis. The study was carried out to investigate effects of individualization of the land tenure on land use patterns in pastoral areas a case study of Lemek location Narok District. A total of 51 questionnaires were administered to 42 local residents, 3 government officials and 6 local leaders. The respondents were randomly selected in the study area.

3.2 BACKGROUND TO THE STUDY AREA

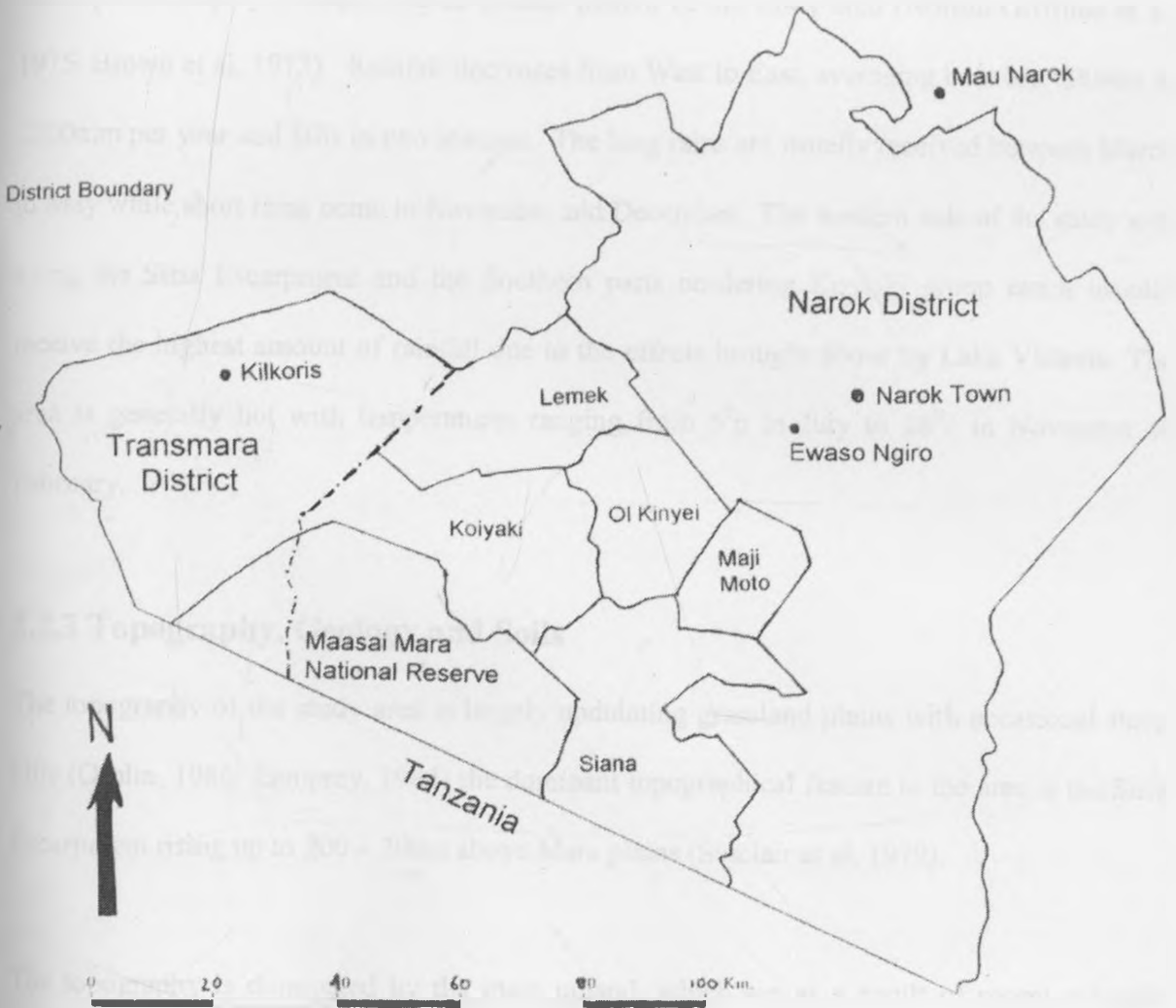
Lemek is a portion of southern Maasai reserve that was created in 1901 by the colonialist. This area was extensively and exclusively used for grazing purposes. The form of tenure in the area before the arrival of the colonialist was communal land ownership where the community controlled all the land. An individual had user rights and could not alienate or sell land. The land policies after the arrival of colonial masters changed. Some of these former communal lands were expropriated for European settlement. The best grazing areas were taken away from their rightful owners exposing them to hardship and adaptation to new environmental conditions that were harsh to their well being. At the advent of independence the land within the study area was held as a trust land by the local authority. However, this status changed towards mid 1970's when various group ranches were formed through the land (Group

representatives) Act of 1968. Towards 1999 Lemek group ranch was dissolved paving way to sub-division into individual holdings.

Lemek has a high potential agro-ecological zone and supports small-scale cultivation in the North and large-scale wheat production in the North East. In the past 20years land under large-scale cultivation has increased from 3% to 12% of the land area in Lemek (KLWT and OOWCA, 2001). Much of the remainder of Lemek is hilly land with some plains in the South West. Wildlife populations are high in Lemek and a number of temporarily animal populations operate in the West of the area. The primary land use in the area is pastoralism, the traditional livelihood of the Maa people. Pastoralism has largely co-existed with Wildlife and tourism in the past. With the increase in population and infiltration of other forms of land uses conflicts have occurred. Lemek provide important seasonal grazing to the outflow of migratory species as well as important wildlife habitat for resident species. Wildlife presence throughout the year in the area is the basis for the tourism industry that provides increasingly significant financial returns to local residents. The area is open to animal migration from Koyiaki and the rest of the Mara-Serengeti ecosystem and has a number of permanent lodges as well as temporarily camps.

3.2.1 Location Size and Geographical Setting

The area of study is in Ololulunga Division of Narok District. It covers an expansive area. It lies between Mulot Division on the Northern side, bordering Koyiaki to the South, Siria Escarpment in Transmara District on the Western side and Ololulung'a location on the Eastern side as shown in Map 3.1



Location of Lemek location in Narok District

Map 3.1: Location of Lemek and other Group Ranches

Source:

3.2.2 Climatic Conditions

Rainfall is generally influenced by ITCZ but local variation together with Orographic and Diurnal effects play a major role in rainfall pattern in the study area (Norton-Griffiths et al, 1975; Brown et al, 1973). Rainfall decreases from West to East, averaging between 700mm to 1200mm per year and falls in two seasons. The long rains are usually received between March to May while short rains come in November and December. The western side of the study area along the Siria Escarpment and the Southern parts bordering Koyiaki group ranch usually receive the highest amount of rainfall due to the effects brought about by Lake Victoria. The area is generally hot with temperatures ranging from 5⁰c in July to 28⁰c in November to February.

3.2.3 Topography, Geology and Soils

The topography of the study area is largely undulating grassland plains with occasional steep hills (Orplin, 1986; Lamprey, 1984) the dominant topographical feature in the area is the Siria Escarpment rising up to 200 – 300m above Mara plains (Sinclair et al, 1979).

The topography is dominated by the main upland, which are as a result of recent volcanic activity with highly porous fertile volcanic ash soils (Said et al, 1997). The uplands are part of what is known in Kenya as the high-potential lands” which were extensively opened for agriculture.

3.3 HISTORICAL DEVELOPMENT OF TENURE IN THE STUDY AREA

3.3.1 At Independence 1963 – 1973

Lemek, which is part of Maasai Southern reserve, was held under a trust administered according to the native land registration of 1938. This however changed after Independence when the land designated as “native reserves” or “special areas” during colonial period were categorized as trust lands. This land was vested in local county councils, which held the land in trust for the benefit of the residents of that land. Any resident tribe, group, family or individual on that land had the right to use, occupy, control, access and possess it under African customary law. This however continued to be the form of tenure in the area until the introduction of group ranches were introduced to Pastoral areas as an alternative form of ownership to land in the mid 1960's.

3.3.2 Group Ranches Development 1973 - 1983

Group Ranches development started in the mid-1960s in some pastoral areas as a form of alternative land ownership. The group ranch concept reached Lemek area in the 1970's. Three major group ranches were formed including: - Koyiaki Group Ranch, Olkinyei Group Ranch with an area of 78,700 hectares and initial membership of 200 members and Lemek group ranch covering an area of 62,897 hectares with an initial membership of 230 members.

The basic rationale for the development of group ranches in the pastoral areas in Kenya was to 'assign definite property rights to specific groups'. This followed from the belief that consequence of misuse and the returns to investment in future productivity are both made specific to the holders of those property rights (Davis, 1970). In 1980 a Presidential decree on

the Land (Group Representative) Act was issued, allowing for the subdivision of group Ranch land, and for the adjudication of ranches into individual plots thus allowing freehold titles.

3.3.3 Individualization of land holding

The holding of individual titles to land is believed to be one of the best forms of land ownership (Chemelil, 1984). This however is a new phenomenon to some parts of Kenya. There has been some resistance to adopt this form of land ownerships in Lemek area due to its political, social and economic implications. The task of sub-division of the land involved great sums of money required by surveyors to undertake the work, with individual group members required to pay as much as Kshs. 30,000 as surveyors fee. The surveyors' fee is a major component of land sub-division and individualization of land tenure processes. So far all land in Lemek has been individualized and majority of landowners have collected their titles.

3.4 DATA PRESENTATION AND ANALYSIS OF THE STUDY AREA

3.4.1 Human Population Settlement

The earliest settlement in Lemek valley was after the creation of southern Maasai reserves allowing Europeans to settle on some of the best Maasai grazing lands in the Central Rift Valley around Naivasha and Nakuru (Waller, 1976).

According to the 1979 census population by sex, Lemek sub-location had 6020 male and 6218 females, with a total of 12238 households covering an area of 1947 Km². This gives a density of 6 persons per Km² (Source: National Census, 1979). Since the population and housing census carried out in 1979, the population density has increased as shown by table 3.1.

Table 3.1

Population by sex, Number of Household, Area and population densities

Area	Census Year	Male	Female	Total	Household	Area sq. Km	Density per Sq. Km
Lemek	1979	6,020	6,218	12,238	2,029	1947	6 persons
Lemek	1999	4,201	3,787	7,988	1,820	533	14persons
*Nkorinkori	1999	4,178	3,941	8,119	1,711	1,285	63persons

***Part of Lemek**

Source: National Census, 1979 and 2001.

Majority of respondents interviewed settled in the land between 1973 and 1998, this was before the sub-division of the group ranch land to individual titles. The sub-division committee gave first priority to members already settled in the land. A few people were displaced and were given land elsewhere. According to the survey carried, out of the 42 respondents interviewed 27(64%) settled in the area before group ranch sub-division while 15(36%) respondents settled on the land after group ranch sub-division. This shows a careful sub-division plan was in place allowing settled members to take the land they had developed and only few people were displaced from their former areas. This minimized conflict arising from displacement or re-location.

3.4.2 Land Sub-Division and Allocation in Lemek Group Ranch

Group ranch members initiated the subdivision of Lemek group ranch. Of the 42 respondents interviewed, 22(52.4%) said group ranch members initiated the group ranch sub-division while 17(40.5%) respondents said it was the group ranch officials who initiated subdivision. Three

(1%) respondents said it was the government. For a group ranch to be sub-divided members must agree on the need for the subdivision. This is deliberated at a group ranch annual general meeting where members are put to vote for or against the subdivision. If 65% of total group membership vote in favor of the subdivision proposal, membership register is closed. The proceedings of the general meeting and members register are forwarded to the registrar of the group ranches who advises the local land adjudication officer on what to do.

The officials of the group ranch are formally required to apply for the group ranch subdivision to the land adjudication office. The adjudication officer would require a register of the group and its officials. The officials of the group ranch are required to seek permission for subdivision from the local land control board; once approved they engage the services of private registered surveyor. The surveyor takes the perimeter boundary for ascertaining of correctness of acreage in the title. He prepares scheme plan, which he takes for approval by the group ranch official. A final map prepared by surveyor together with area lists and filled mutation forms is forwarded to the registrar office for registration. Transfer of land forms are signed by the group ranch officials in presence of a High Court Advocate for each individual member to allow him/her acquire individual title.

Money required for the processes includes: -

1. Minimum of Kshs.3, 000 per hectare surveyor costs.
2. Transfer Registration Kshs.250
3. Green Card Kshs.150
4. Consent Kshs.250

5. Stamp Duty 2% Value Of Land
6. Title Kshs.125

Once all these processes are fulfilled, one is issued with a title under Registered Land Act Chapter 300 Laws of Kenya.

Problems encountered by surveyors during subdivision

1. Allocation of parcels was really difficult due to political interference, nepotism and Corruption
2. Wild animal menace delayed work in most areas.
3. Inaccessible Terrain made work really difficult
4. Determination of boundaries was very difficult due to various factors.
5. Locals hostility since some people were against subdivision of group ranch

3.4.3 Type of Tenure Preferred

The question of which form of land ownership is preferable by the respondents was articulated well by the respondents and their views are as indicated in table 3.2 below.

Table 3.2: Tenure

Tenure	No. of Respondent	Percentages of respondents	Sample size
Individual	35	83	42 Respondents
Group ranch	3	7	
Communal	4	10	
Total	42	100	

Source: field survey, 2003

Majority of the respondents had collected title deeds for their parcels at Narok land registry. Out of the 42 respondents interviewed, 31 had collected title deeds, 10 respondents processing their title deeds and one person is yet to start the process of acquiring land ownership. Majority of the respondents were members of Lemek Group Ranch and acquired titles after dissolution of the group ranch. A small number of respondents got titles before the dissolution of the group ranch this means that part of Lemek location were adjudicated earlier giving individual rights to individual land ownership. According to the survey 38(90%) respondents got titles after group ranch subdivision while 4(10%) respondents acquired titles before group ranch dissolution.

3.4.4 Land Accessibility

Land accessibility for individual use is a crucial factor as far as Pastoralism or any other form of land use is concerned. Table 3.3 below indicates land accessibility before and after group ranch sub-division.

Table 3.3: Land Accessible to individual member

Land sizes Acres	No of Respondents before group ranch subdivision	Respondent Percentages before group ranch sub-division	No of Respondent s after group ranch subdivision	Respondents Percentages after group ranch sub- division	Sample size
50 – 100	9	21.4	29	69	42 respondents
101 – 200	6	14.3	7	16.7	
201 – 300	5	11.9	3	7.15	
301 – 400	-	-	3	7.15	
Over 400	22	52.4	-	-	
Totals	42	100	42	100	

Source: Field survey, 2003.

It is notable that majority of respondents had access to over 400 acres before group ranch subdivision but things changed considerably. After the subdivision acquisition of individual title where majority of the respondent could only access less than 100 acres for their various uses.

3.4.5 Benefits of Individual Land Ownership As Reported By Respondents

Land use was mainly restricted to pastoralism during the group ranch era with only a few acres (less than five acres) allocated to individuals for agricultural use. The group ranch leased the land that was used for cultivation or for wildlife tourisms and the monies accruing from the leases were used for development purposes. However this changed when people were given individual land titles. Individual persons were free to lease land for agriculture, wildlife or leave it as pasture for livestock. The monies accrue were used by individuals for his own requirements. The respondents identified various benefits accruing for the individual land ownership. They include: -

1. Individuals get money accruing from lease of land from agricultural production or wildlife tourism conservation activities.
2. Freedom of choice on land use without any red tapes by group ranch officials or members of the group.
3. Individuals are free to develop their pieces of land without restriction
4. Planning of various activities in one piece of land is made easier.

5. Creation of security of tenure which in turns assures the lenders /banks, finances houses, building societies has the possibility of realizing their security upon default.
6. One is able to use his title as collateral for development of his parcel of land or borrow funds for any other development he wants to do
7. Commodification of land such that those people wishing to sell or lease can do so at their own free will.

They said that the advantage of individual ownership of land outweighs the disadvantages that accrue.

3.4.6 Hardships Experienced By Respondents As A Result Of Individual Land Ownership

1. Wildlife-human conflict as a result of settlement put up at areas, which were previously wildlife domains
2. Infrastructure lacking and most areas inaccessible and lack basic services.
3. Restricted movement of livestock
4. Boundaries disputes among neighbours
5. The source of water in this area is usually river water and springs. Many springs and salt licks are located at the bases of hills and escarpments. These livestock resources are therefore located faraway to most people.
6. Unity of development is lacking among residents Sale of land leading to increased poverty
7. sale of land leading to increased poverty
8. Livestock numbers has reduced resulting to poverty

9. Destruction of vegetation is common as people create space for homesteads, cultivation and firewood for the households.
10. Soil erosion has become endemic particularly on paths road that leads to water point's salts likes and other common resources due to large number of livestock and wildlife using the route and frequency.
11. Over use of grazing resources as a result of poor planning and lack of knowledge on the carrying capacity of the parcel of land by individual household landowners.

3.5 ECONOMIC ACTIVITIES

The economic activities in Lemek include: - Pastoralism, large-scale and small-scale farming and Wildlife tourism activities.

Table.3.4. Economic activities

Activity	No. of Respondent Practicing the activity Before group ranch subdivision	%Before group ranch subdivision	No. of respondents practicing after group ranch subdivision	%After group ranch subdivision	Sample Size
Pastoralism	33	78.6	18	43	42 Respondents
Wildlife	4	9.5	8	21	
Crop farming	24.8	4.8	7	17	
Renting out	3	7.1	8	19	
Totals	42	100	42	100	

Source; field survey, 2003

The respondents have practiced pastoralism over the years while wildlife tourism and renting of land for crop production started around 1990.

The land use pattern in Lemek is slowly changing as can be witnessed in table 3.4.

The number of respondents practicing livestock production before group ranch subdivision was 78.6% while respondents practicing the same activity after group subdivision reduced by 35.6% to 43%. The number of respondent practicing wildlife conservation, crop farming and renting out increased. The percentages of increments noted are 11.5%, 12.2% and 11.9% for wildlife conservation, crop farming and renting out respectively

3.5.1: Land Allocation to Various Activities

The table below shows the allocation of land to various activities as indicated by the respondents.

Table 3.5 Allocation of land to various activities by individual member

Activity	Land available for each activity in acres	Percentages of land available for the activity	Sample size
Pastoralism	88.5	71	42 Respondents
Agriculture/renting out	17.8	14.3	
Wildlife	18.3	14.7	
Renting out	15.5	12.4	
Totals	124.6	100	

Source: field survey, 2003

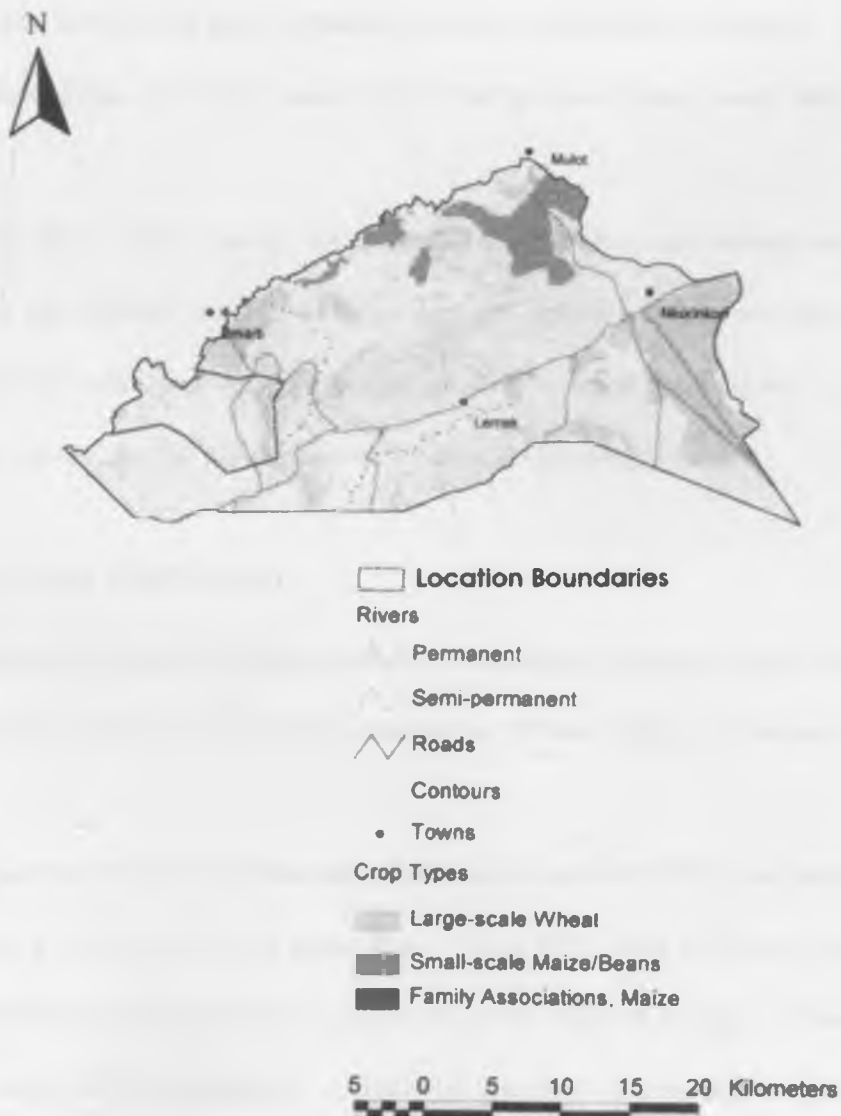
Pastoralism is still wide spread in the area. All respondents interviewed practice pastoralism and provide a section of their land for the other activities. In cases where somebody has more than one parcel of land, then he can use one parcel for pastoralism and either leases extra land for agricultural production or for wildlife conservation purposes. The Land use pattern in Lemek is slowly changing as can be seen from the above diagram. The area available for livestock production and agriculture has increased with smaller margins however the area available for wildlife tourism has reduced by almost a half. This indicates a preference of livestock production due to high income earned from the sale and meeting of other cultural and social goals. The sale of livestock should be encouraged to reduce the chances of overstocking and death of livestock in times of drought.

3.5.2 Crop Production

Crop production is a new form of land use that was been introduced in the area around 1967. see Map 3.2 The Large-scale farms that are concentrated in the Loita plains are used for large-scale mechanized production of crops such as wheat and barley. These plains were once a wet season grazing area. The plains had seasonal rivers and water ponds that provided adequate watering points for the herds. The region was also an important dispersal area for wild animal. The increase in human population, Government policies, economic opportunities and interaction of Maasai Pastoralist with the neighboring community of Kipsigis has accelerated the need for cultivation of these virgin plains to provide food. Map 3.2

The preparation of land start as early as December and other processes follow in good time for the crop to be planted in March of the coming year. The crops are planted just in time before the long rains, which provide adequate rainfall for the crop requirements. The harvesting usually starts from the month of July in some instances and continues until September

depending on the time the crop were planted and the maturing period of the crop in question. Small-scale farming and large- scale commercial farming are the main types of farming systems practiced in Lemek. Cultivation is concentrated in the flatter areas in the North and East of Lemek. This is so because the area receives greater amount of rainfall more regular than the Southern area towards Maji-moto. Flat land is desirable for both large-scale farming and small-scale farming, as the hilly areas tend to be stony and less fertile. The area is also accessible to marketing points such as Kisumu, Nairobi, Eldoret etc. Supplies of heavy equipments, machines and inputs required for both large-scale and small-scale production are made easier by the all weather road passing through the Loita plains.



Existing cultivation

Map 3.2 Existing Cultivation

Source: (KLWT and OOWCA, 2001)

3.5.2.1 Small-Scale Cultivation

Individual families using hand labor generally practice small-scale cultivation. Use of hand labour limits field sizes. In some cases where tractors have been, used field sizes have expanded.

The crops grown are: - Maize, beans, sorghum and millet. The main impediments to small-scale cultivation are wildlife menace/damage. Another problem is the and short period for planting which often means that there is insufficient time for hand planting and crop often fails to reach maturity as the rainfall reduce drastically over the planting period.

3.5.2.2 Large-Scale Cultivation

Large-scale farming is practiced by predominantly non-Maasai business entrepreneurs leasing land from individual landowners. The crops planted are Wheat, Barley and Maize see in Plates 3.1 and 3.2

Individual farms sizes range from 100acres to 2000 acres in extent. The area under large-scale farming has grown steadily over the years from 3% to 12% from 1975 to 1994 (KLOON, 2001). Heavy machineries are used in all operations of this form of farming. Tractors are used for ploughing, harrowing and planting. Aeroplanes are used in spraying of insecticides and fungicides to crops while harvesting is done by use of modern combine harvesters.



Plate 3.1
Maize Plantation
Source, Field Survey 2003



Plate 3.2

Wheat Field
Source Field survey, 2003

3.5.3 Wildlife- Tourism Conservation

Wildlife conservation has a long history in Kenya starting from pre-colonial period. One of the dilemmas associated with it has been how to deal with land use conflicts in wildlife areas in a manner that will meet both wildlife conservation requirements and human needs. The present challenge in wildlife conservation sector is to find institutions and processes, which take into account the need of local communities and those of wildlife so as to use the sector effectively and alleviate inherent land-use conflicts. Creation of national parks and conservation areas has eliminated dry season grazing reserves (Brent MS et al, 2000). Over the past decade tourism has been the major foreign exchange earner in Kenya and second only after agriculture. According to School and Ulsser, (1993), 60 to 70% of tourism is based on wildlife which also has a higher value added than tourism based on the coastal resources. Plate 3.3 shows wildebeests migration grazing.

Lemek area has over the years acted as a buffer zone for wildlife. These rangelands contain communities of resident wildlife all year round. Migrating wildlife also spill into them during dry periods. The area houses permanent lodges including the Mara safari club and voyager Mara lodge as well as variety of tented camps including Mara buffalo, Mara River among others. These are scattered along Mara River on the outskirts of the greater Maasai Mara Game Reserve. Most of these facilities are located near rivers or scenic area/site and provide accommodations to the visiting tourists in the area. Plate 3.4 and 3.5 shows accommodation facilities available in the area.

Some of the conservation agencies in the area include Olchorro-Oirowua Wildlife Conservation Association, Oliopa Wildlife Trust, Olosirwa and Koiyaki Wildlife Management. Though these agencies have developed over time, they used to operate as one entity. Due to

poor management practices, it was difficult for them to withstand the test of time. They therefore, split into small agencies that were better managed through accountable and transparent principles of the economic gains derived from tourism Wildlife. Wildlife tourism in Lemek is an important activity for the area residents as they tap economic gains accruing from Wildlife instead of depending solely on the pastoralists' economy.



Plate 3.3

Wildebeests

Source; Field survey, 2003



Plate 3.4
Voyager Mara Lodge overlooking Mara River
Source: Field Survey, 2003

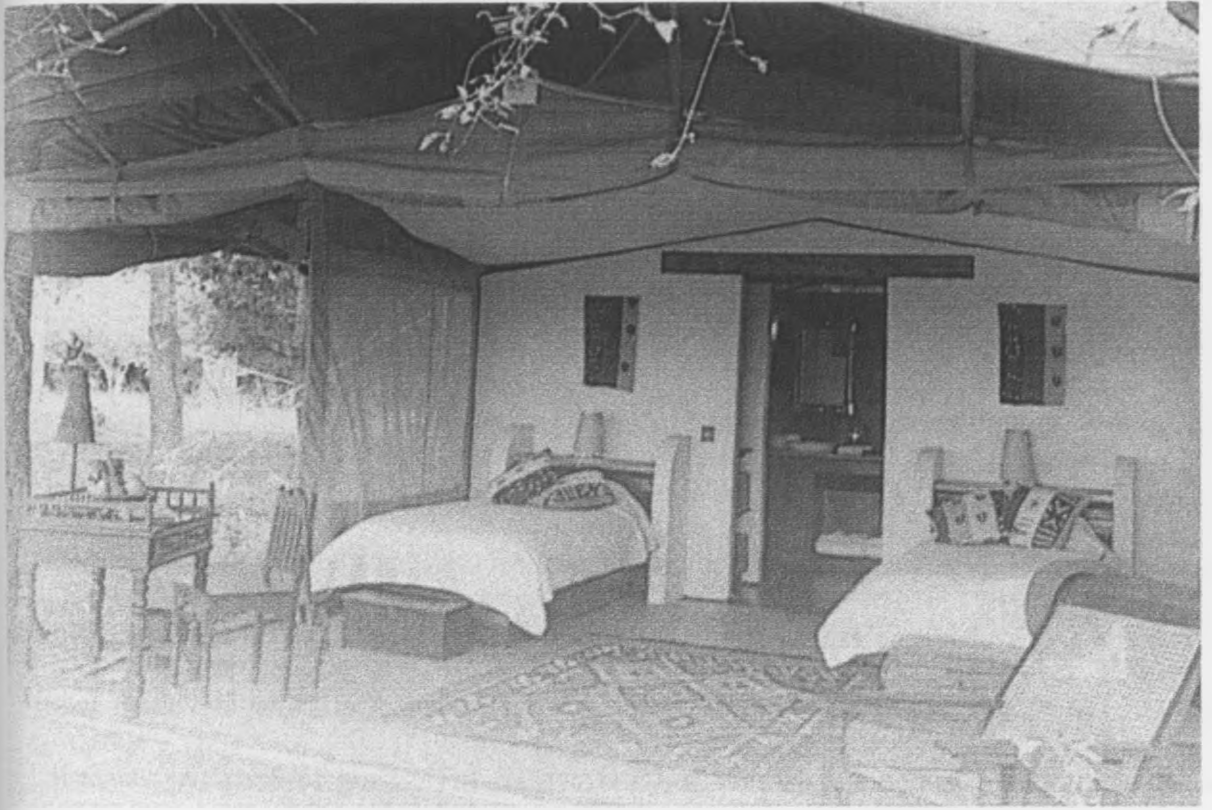


Plate: 3.5
Interior of a room at Voyager Mara Lodge.

3.5.4 Livestock Production

Maasai people keep large numbers of animals (livestock) signifying their wealth and well-being. The livestock provide a stable balanced diet to the community. Plate 3.8

Until recently, the Maasai subsisted on purely pastoral diet composed of milk, blood and meat. There is evidence that this adaptation is of considerable antiquity, to the extent that the Maasai have acquired specialized genetic traits enabling them to absorb high cholesterol content of a diet rich in animal fats (Jacobs, 1975). The task of rearing livestock is divided among the members of the household. The herding of mature animals is the responsibility of men; hired labour is available for the members of the household who afford the services. The young members of the family were initially responsible for the care of young animals but with the increase in the numbers of school going children, the trend has changed. Young animals are now herded together with mature animals once they are strong enough to trek for long distances in search of grass. The responsibility of Women is essentially milking and house chores. The decision to slaughter animals, for home consumption, is the responsibility of men.

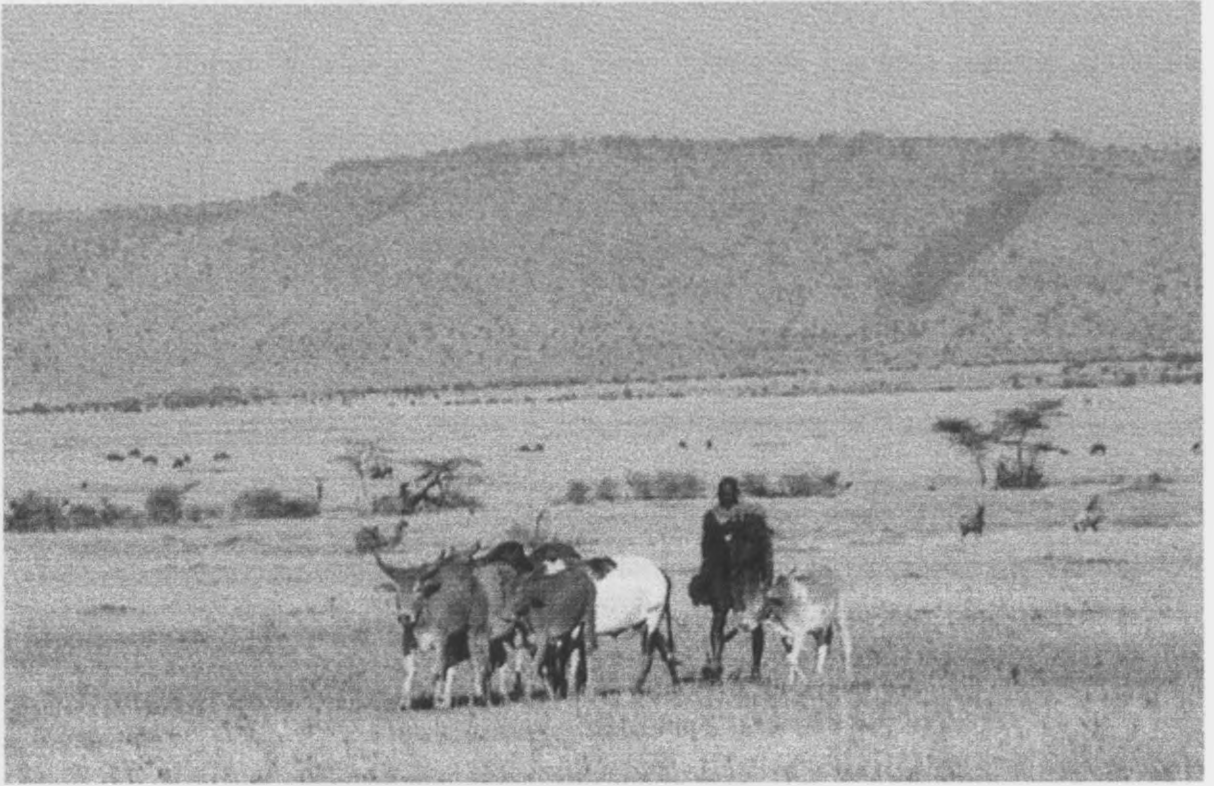


Plate 3.6

Foreground: A Maasai herder moving livestock through conservation area background; Siria Escarpment

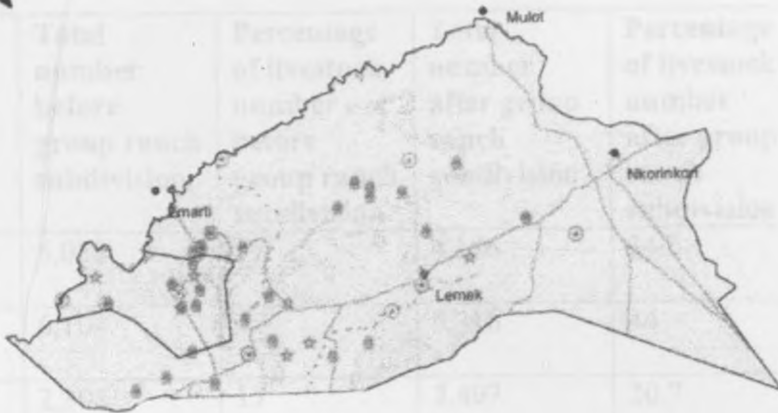
Source: Field Survey, 2003

The dominant breed of livestock found in Lemek includes: - Maasai Zebu, Boran, Sahiwal, Red Maasai Sheep, Doper, Goats and Donkeys. Livestock population has decreased as in table 3.6; this can be attributed to clearing of bushes to accommodate the increase in crop cultivation. Due to the clearing of bushes, tsetse infestation has been reduced and hence livestock can occupy these areas. Though, tsetsefly is common along Olchorro Oirowua, Aitong and Oliopa areas, KETTRI is currently conducting research at Olchorro Oirowua with a view of assisting the local communities to reduce the tsetse fly menace. The opening up of more areas to crop cultivation has the advantages of reducing tsetse fly prevalence. The disadvantage of this type of land use is reducing pastureland that is available for the increased livestock population.

Livestock sale provide cash income and capital for investment in agriculture and other sectors of economy. Plate 3.3 shows livestock being taken to the market for sale. Livestock therefore have multi-dimensional contributions in meeting food security, cultural and economic obligations of the individual as well as the community in general.

There are nine cattle dips available in the area; Local Authority manages four of these dips while individual landowners manage five. To supplement these dips other forms of chemical application such as spray machines are used. This is a new practice in Lemek.

Trading centers are strategically located in different parts of Lemek and provide essential services required by the local population, this includes drug stores, butcheries, shops and entertainment zones or areas among others.



□ Location Boundaries

Rivers

- Permanent
- - - Semi-permanent

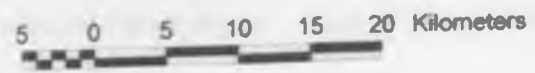
∨ Roads

— Contours

• Towns

Livestock Resources

- Salt Licks
- Permanent Springs
- ⊙ Semi-Permanent Springs
- ★ Pans
- ⊕ Dams
- ∨ Small-stock Markets



Livestock resources map

Map 3.3 Livestock resources map

Source; Field Survey, 2003

3.5.4.1 Livestock Population

Table 3.5 below shows the livestock population before and after group ranch subdivision

Table 3.6 Livestock Population

Livestock Type	Total number before group ranch subdivision	Percentage of livestock number before group ranch subdivision	Total number after group ranch subdivision	Percentage of livestock number after group ranch subdivision	Sample size: 42 respondents
Cows	5,028	37	4,186	34.8	
Sheep	6,104	45	5,316	44	
Goats	2,308	17	2,497	20.7	
Donkeys	55	1	36	.5	
TOTAL	13,495	100	12,035	100	

Source: Field Survey, 2003

NB: Data gathered in the survey indicates a decrease in the number cattle, sheep and Donkeys per household after the sub-division of the group ranch while an increase is noted on the Goat kept by household. This can be attributed to demand at the market place. Livestock provides the main stay of household incomes in pastoral communities. Sale of livestock is sometimes governed by the needs of individual household, if for instance there are no pressing needs requiring cash then; there is no sale of livestock thus the numbers continue to grow. Milk Production is mainly used for home consumption. The milk is consumed fresh or sour. Milk is rarely sold though it is sometimes however sold in small quantities in townships, trading centres when it is produced in excess quantities of household requirements mainly during the rainy season.

3.5.4.2 Herd Structure

In pastoral herd kept for milk, most of the animals are female. The table 3.6 shows that more than half of the herds are females. This is in line with a typical milk herd.

Table 3.8 pastoral herd structure

Area	Calves %	% of milk cows	% of non milk cows	% of bulls	% of steers	% of mature female
Talek	12.01	12.85	49.15	5.34	20.60	62.05
Total sample	18.06	20.34	37.76	6.79	17.57	57.08
Aitong	25.62	27.27	25.97	6.43	14.94	53.93
*Lemek	16.71	16.97	39.80	6.90	19.62	56.77
*Nkorrnkori	20.29	18.69	36.1	8.50	15.65	56.56

Source: (KLWT and OOWCA, 2001)

* Area under study

3.6 Income Earning

Table 3.8 Incomes earnings of an individual member per annum

Activity	Income before Group ranch Subdivision	Percentages of Income before Group ranch Subdivision	Income after Group ranch Subdivision	Percentages of Income after Group ranch Subdivision	Sample size
Pastoralism	122,033	74.5	138,095	66.3	42 respondents
Farming/renting out	39,238	24	56,785	27.3	
Wildlife tourism	2595	1.5	13,307	6.4	
Others	-	-	-	-	
Totals	163,866	100	208,187	100	

Source: Field Survey, 2003.

A general increase in income is noted in all income earning activities. Livestock production earns the highest income followed by crop farming/renting out and lastly by wildlife tourism activities. On overall percentage, increases of 3.3% and 4.9% were noted on crop production and wildlife tourism respectively while a decrease of 8.2% was noted in livestock production. This indicates that many people are now depending on other forms of land use/ income generating activities. The trend of land use changes are witnessed in table 3.8

3.7 EFFECTS OF INDIVIDUALIZATION OF LAND TENURE ON LAND USE PATTERN IN LEMEK

Land adjudication cannot be said to be the sole cause of changes in land use pattern. But it plays a significant role in land use pattern. Land use is an important determinant of economic status of the individual utilizing that land for economic activities and economic gains. The main types of land use in the study are livestock production, crop production and wildlife conservation. The initial set-up of living areas was concentrated in areas along Nkorriinkorilemek road. Several households before the subdivision of the group were grouped together in a single Manyatta as a way of creating adequate grazing opportunities for their livestock, as a security measure against wildlife predation and raids from other communities. Plate 3.7 shows a typical arrangement of a Maasai Manyatta.

Livestock production had not been affected much by the individualization of land tenure since most people still keep livestock for both social and economic activities. One very common problem noted are conflicts associated with boundaries disputes and livestock resources such as salt licks, water points etc, and these problems can be attributed to poor planning during subdivision of the group ranch.

Urban centres/ trading centres are located along the road. Social amenities for instance schools, dispensaries, churches amongst others are located in these centres to serve the varying needs of the population.

The subdivision of the group Ranch land displaced some people from their original homes.

They moved to new areas to occupy the parcel of land allocated to them. This meant that people were spread all over the former group ranch land. The subdivision reduced the amount of land that was accessible to households with households now only able to access between 100 acres and 120 acres of land.

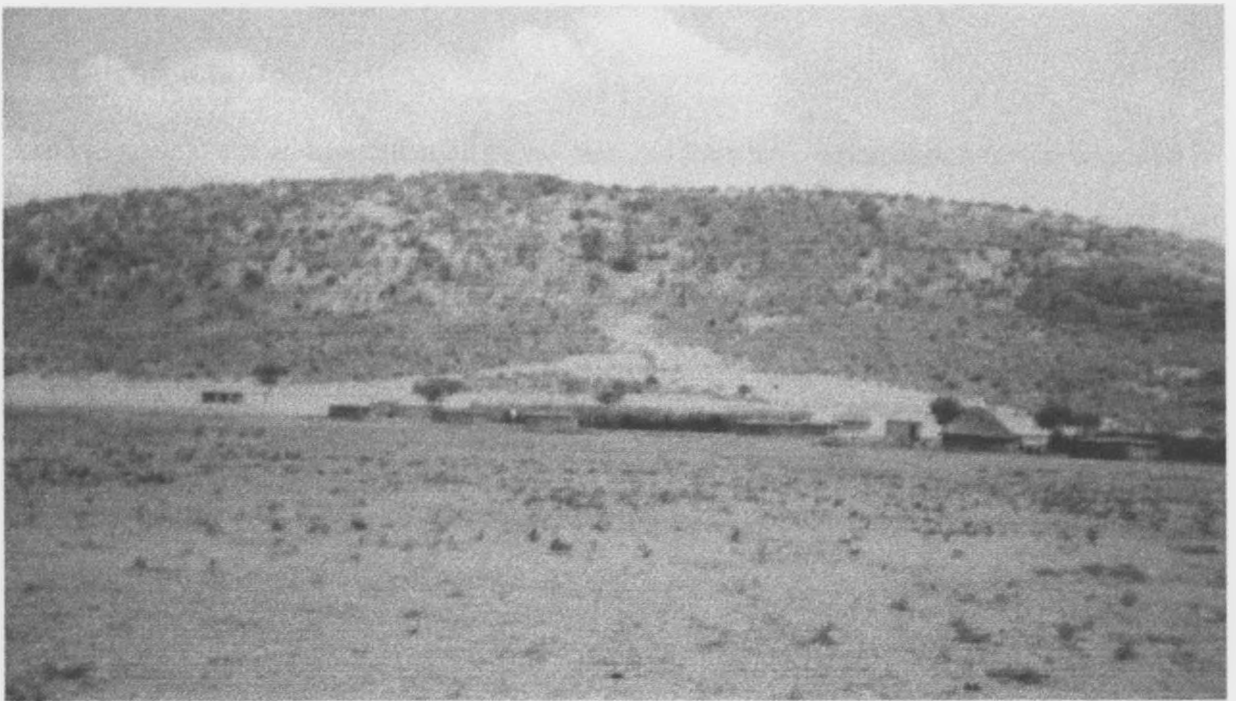


Plate: 3.7

Maasai Manyatta

Source: Field Survey, 2003.

CHAPTER 4

4.0 SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

4.1 Introduction

Land tenure change and introduction of various land laws have repercussion on the way land is held. In the study area all land has been demarcated and registered under Registered Land Act (Cap 300 of the laws of Kenya). The Registered Land Act provides that the registered owner is the sole and absolute owner of the land registered in his/her name.

The study aimed at collecting data relating to the effect of individualization of land tenure on land use pattern in Lemek location and the evaluation of the impact of land adjudication process on the land use in the study area.

Whenever there is process of individualization of ownership to land it is hoped that: -

- (a) A land tenure system that will make land more productive to a farmer
- (b) Security of tenure is provided through an indefeasible title that encourages the owner to invest his/her labour, and profit in the development of his/her piece of land and secure loans from such sources as may be open to him/her.
- (c) Farm production will be improved through consolidation of scattered land.

(d) Customary land tenure system would be removed and a system introduced which makes the owner develop sound farming techniques i.e. rotation, to care for and apply manure, to establish and manage grass, to improve the management of and feeding of livestock or to tend cash crops in a satisfactory manner.

4.2 SUMMARY OF FINDINGS

The study found that:

1. Land subdivision in the area was initiated by Lemek group ranch members. Majority of the respondent were for the individualization of land titles.
2. Land accessible to individual member reduced after the subdivision of the group ranch.
3. The tenure change in the area of study has significantly altered the pattern of land use in the following ways: -
 - (a) The communal nature of land control was removed giving the landowner freedom in deciding the kind of activities that are beneficial to him/her. This encourages landowners to invest more on the development of the land in activities that provide him with maximum returns.
 - (b) In the area of study most of the land was a group ranch where pastoralism was the main activity practiced but other forms of land uses emerged i.e. leasing cultivation and wildlife-tourism. This were closely monitored and controlled by group ranch officials. After land was individualised people have moved and occupied all available land and practice activities that provide the highest return and compatible to the environmental and climatic conditions prevailing at that particular area. Examples of activities practiced are; livestock production, wildlife conservation, crop production etc.

(c) The individualization of land ownerships led to the construction of modern houses. This improved the living standards of the people, their productivity and health status. Individualization of land ownerships is not the only factor that has brought changes in the present pattern of land use. There are a host of other factors that can be said to have brought the changes. They can be classified as social, political and economic factors.

4. Pastoralism is a way of life to many people living in Lemek as found out in the survey. Many households still depend largely on livestock production to meet their daily requirements although other opportunities of income earning activities exist.
5. Wildlife tourism in Lemek is an important upcoming activity for the area residents. Resources accruing from wildlife are tapped instead of depending solely on the pastoral economy. Although this is a recent phenomenon, it is important for various stakeholders to explore ways and means of making the activity a permanent feature that would provide employment, alternative source of revenue and conservation of flora and fauna for the good of the area and the country as a whole. This can be achieved only if all persons concerned are involved in a serious evaluation of the activities viability with a view of making it sustainable for future generations.
6. Conservation in the area was faced with political interferences as well as poor management of resources. A corrective measure has been put in place to address poor management practices and the political aspect still unaddressed. This discourages the local community from utilizing the area for wildlife tourism use. The issue of politics in the conservation areas should be minimized in tourist resorts generally brings bad publicity, which leads to tourist relocating to other areas therefore reducing the number

of tourist visiting the area. This affects the economic gains accruing from tourism.

7. Tourism is also noted as one of the factors that have propelled the population living in that region to modernize. The interaction between the community and the tourist when they visit Manyattas has greatly increased communication of the local people with the outside world. This brings different lifestyles amongst the community. Through visits to cultural Manyattas the tourists are able to see the housing units and to purchase original wares i.e. necklaces. The tourists are also treated to various Maasai dances in these Manyattas. This boosts economic activities in Lemek. Other benefit of wildlife tourism includes, employment opportunities provided in the resorts and tour companies.

4.3 RECOMMENDATIONS

4.3.1 WAYS OF INTERGRATING EMERGING LAND USE WITH PASTORAL LAND USE

1. Pastoralist should embrace diversification opportunities i.e. crop production and wildlife conservation in order to enhance and improve their income levels. This can be achieved if careful planning is put in place to mitigate for the various conflicts that may erupt.

To reduce the conflicts the following need to be emphasized;

- (a) Laws should be enacted to allow the landowners to cull wildlife living in their lands in order to reduce overgrazing and boost income.
- (b) Sale of livestock should be encouraged to reduce the chances of overstocking or death of livestock in times of drought.
- (c) Wildlife conservation should be encouraged in areas where livestock production is not desirable due to other factors.
- (d) Cultivated fields need be left for some time between harvesting and next season cultivation so that livestock can graze on them. This will increase the grazing resource for livestock and leave the grazing that is normally used when crops are in field to rest and recover thus being able to sustain livestock through the season.

2. Policies should be introduced that encourages production of improved breeds of local zebus that have a high resistant to common severe drought conditions. Boran and Sahiwal breeds should only be introduced in areas less susceptible to drought. Maximization of livestock product should be priorities given the reduced access to grazing land. This will effect positively on the income accruing to the households in the area and create incentives for commercial beef production that may have a general effect on the national economy if

appropriate measures are taken in marketing the products.

3. The banks and other financial institution providing credit facilities should be encouraged to give flexible loan repayments conditions. The interest on loan need be low for pastoralist wishing to improve their breeds. The repayment schedules should allow for a grace period and repayment tied to the sale of livestock.
4. Wildlife tourism is recent phenomenon in Lemek. It important for the various stakeholders to explore ways and means of making the activity a permanent feature that would provide employment, alternative source of revenue and conservation of flora and fauna for the good of the area and the country as a whole. This can be achieved only if all persons concerned are involved in a serious evaluation of the activities viability with a view of making it sustainable for future generations.
5. The sale of old milking cows and oxen should be utilized in investing on long-term capital projects. Sale of livestock should not be viewed as a taboo but an intelligent way of overcoming draught disasters that kills thousand of livestock living many people miserable and regretting.
6. Livestock and livestock products marketing points are needed both locally and internationally. At moment there are many setbacks as far as livestock marketing is concerned. Abattoirs need to be strategically located in areas that are important in beef production. This would reduce trekking distances; enhance efficiency and quality of beef produced. There is need to negotiate the uplifting of the bans in beef exportation to Europe markets to create markets that would provide foreign exchange earnings.

4.4 AREA OF FURTHER STUDIES

There is need for more studies to be carried out on the impact of sale of land in Pastoral areas.

4.5 CONCLUSIONS

The research based in Lemek location of Narok District would form a basis of future tool in planning, useful in all other pastoral areas in Kenya undergoing similar processes. The effects of individualization of titles are far reaching concerning land use pattern.

Land tenure change was a welcomed move by most of the respondent in Lemek.

The belief that pastoralist should continue with communal land tenure or group ranch system for better management of resources and sustainability of pastoralist activities is now in doubt since most of this pastoralist themselves are now advocating for individualisation of land tenure.

Livestock production had not been affected much by the individualization of land tenure though conflicts are commonplace due to poor planning of the livestock resources.

Livestock numbers remain almost the same before and after group ranch subdivision. Many families still depend on livestock as their main economic source.

Other forms of economic activities marginally supplemented this activity

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APPENDIXES

APPENDIX A

INTRODUCTION LETTER

Koriata Stanley Koinet
University Of Nairobi
P. O. Box 30197
Nairobi
10 th June, 2003.

To Whom It May Concern:

RE; PROJECT RESEARCH

I'm a fourth year student at the University of Nairobi.

It is a requirement to undertake a research project in my area of specialization. I wish to conduct a research in Lemek Location, Ololulunga Division of Narok District. My research paper title; *The effects of land individualization on land use pattern in pastoral areas.*

I have chosen Lemek Location as an ideal case study area due to its outstanding features in my area of concern.

The research would involve conducting of interviews through questionnaires to various people in the area.

I'm obliged to request for your support, cooperation and understanding in answering of the questionnaires. The information gathered in the interviews will strictly be kept confidential and used for this research only.

I look forward to your kind assistance and cooperation

Yours faithfully

Koriata Stanley koinet

Student of land economics

APPENDIX B

UNIVERSITY OF NAIROBI

DEPARTMENT OF LAND DEVELOPMENT

RESEARCH PAPER

QUESTIONNAIRES TO THE RESIDENTS / LAND OWNERS

1. When did you settle in your current land?

.....

2. (a) How much land do you own in Lemek?

.....

(b) Do you have a title deed for this land?

.....

(c) If not, what type of rights do you have on the land you occupy?

.....

3. Did you own the land before or after the ranch was subdivided?

.....

4. What form of land ownership do you prefer?

- Individual
- Group Ranch
- Communal

5. What benefits do you get from, that form of land ownership please explain?

.....
.....

6. Were you a member of Lemek group ranch before subdivision?

.....
.....

7. How much land was accessible to you from the ranch before the ranch subdivision?

.....

8. Who initiated the subdivision of Lemek group ranch?

.....

9. What activity/ activities did you practice before the subdivision of the group ranch?

.....

10. How much land did you acquire upon the subdivision of Lemek group ranch?

.....

11. What activity do you practice in your land now?

- Pastoralism
- Agriculture
- Wildlife Conservation
- Renting out
- Others and Specify

.....

12. What portion of your land do you use for each of the activities you carry out?

.....
.....

13. When did you, started practicing the activity/ activities you have stated above?

.....
.....

14. What are the benefits of each activity?

.....
.....

15. How many animals did you keep before the subdivision of the group ranch?

- Cows.....
- Sheep.....
- Goats.....
- Donkeys.....

16. How many animals do you keep now?

- Cows.....
- Sheep.....
- Goats.....
- Donkeys.....

17. Has the number of livestock you keep increased or decreased over the years? Give reasons.

.....
.....

18. How much money do you earn per year from the sale of your livestock and livestock products?

19. (a) Do you own any other land anywhere else?

(b) If so, how much?

20. What use do you put to this extra land?

21. How much money did you earn on yearly basis, from farming before the subdivision of the group ranch?

22. How much money do you earn from farming now on yearly basis?

23. Is Wildlife tourism available at your area?

24. What are the benefits of wildlife tourism?

25. How much money did you receive from wildlife tourism before the subdivision of the group on yearly basis?

26. How much money do you receive now on yearly basis from wildlife tourism?

27. Have you subdivided your land recently?

.....

.....

(d) When?

(e) What sizes were the parcels?

(f) What were the reasons for subdivision?

.....

28. Have you sold any portion of you land?

.....

29. What were the reasons for the sale?

.....

30. Did you sell your land to a resident or non- resident?

.....

THANK YOU

APPENDIX C

UNIVERSITY OF NAIROBI

DEPARTMENT OF LAND DEVELOPMENT

RESEARCH PAPER

QUESTIONNAIRE TO GOVERNMENT OFFICIALS / LAND OFFICIAL

1. What is the government's policy on land ownership in pastoral areas?
2. When did ownership of private land start in Lemek?
3. What are the benefits of individualization of title to landowners?.....
4. What problems do you foresee as a result of individualization of title in Lemek?.....
5. What problems did you encounter during adjudication of Lemek?.....
6. What effects do you foresee on land use pattern in the area?.....
7. What problem affects landowners in this area?.....

8. What complaints did you get from group ranch members when subdividing the ranch?

.....
.....

9. What are your opinions on the subdivision of group ranches?.....

.....

10. Who initiated the subdivision of the group ranch?

THANK YOU

APPENDIX D

UNIVERSITY OF NAIROBI

DEPARTMENT OF LAND DEVELOPMENT

RESEARCH PAPER

QUESTIONNAIRE TO COMMUNITY LEADERS.

1. What is the response of the community to individual land ownership?

.....

.....

2. What hardships are experienced as a result of individual land ownership?

.....

.....

3. What nature of complaints do you experience as a result of the subdivision of the group ranch?

.....

4. What benefits in your view were available that are now curtailed by the subdivision of the group ranch?

.....

.....

5. What benefits are enjoyed now by the individual landowners?

.....

6. What is the development agenda for Lemek?

.....
.....

7. How are developments financed in the area?

.....
.....

8. What development aspects have been made difficult by subdivision of the group?

.....
.....

9. What development aspects have been made easier by subdivision of the group?

.....
.....
.....

10. Which benefit(s) accrues to the community as a result of change in land tenure?

.....
.....
.....

11. In your views the current land use beneficial to the residents of Lemek?

.....
.....
.....

12. How many people do you know who have sold land?

.....

.....

13. Is there any good reason why people sell land in Lemek?

.....

14. Is the land sold to resident or non-resident?

.....

.....

15. Who initiated the subdivision of the group ranch?

.....

.....