

Impact of Policy and Legal Reforms on a Pastoral System in Lower Kagera Sub-Basin, North Western Tanzania

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Abstract: *A socio-economic study was conducted in the lower Kagera sub-basin in North Western Tanzania to assess the impact of land-use policies and legal reformson pastoral system. Questionnaire surveys and PRA approaches were employed to collect data in four districts: Muleba, Missenyi, Karagwe and Ngara in Kagera region. The main economic activities in the study area were small hold farming (74%), agro-pastoralism (48%) and pastoralism (4%). The majority own between 1 and 2 acres of land, held under customary regimes (60.3. There were experienced increasing land shortages (69.2%) mainly attributed to unfavourable legal and policy framework (96.4%). The main constraint faced by pastoralists was shortage of grazing land (52.9%). The structures established to administer land resources and resolve land-use conflicts were reported to be ineffectual. The area is facing increasing land-use conflicts that involve farmers against pastoralists, farmers against farmers, farmers against investors, and farmer against government agencies. A number of newly introduced policies and laws aiming at commercialization of pastoral system had led to expropriation of customary lands to new investors. The pastoral systems are now on transition, and increasingly becoming sedentarized. There are emerging commercial investors who were partitioning communal grazing lands and converting them into commercial ranches. In order to cope with changes it is recommended the interventions that will intensify the pastoral system by increasing both rangeland and livestock productivity and ensure sustainable rangeland health in Kagera sub- basin.*

Key words: Kagera sub-basin, pastoral systems, land-use policy reforms, communal grazing lands, land-use conflicts

INTRODUCTION

General overview

Pastoralism is an important land use system in East Africa, contributing substantially to national economies and providing subsistence to the majority of rural populations living in arid and semi arid areas (EIU, 2006) including the lake Victoria basin (FAO/GEF, 2007). Pastoral sector in Tanzania accounts for about 18% of Gross National Product (30% of agriculture GDP) and provide employment to approximately 3.8 million people (EIU, 1997). In Kenya pastoralism contributes 10% of the agriculture GDP and about 50% of the agriculture GDP and accounts for 50% of labour force. While in Uganda, it contributes 7.5% of total GDP and 17% of

agriculture GDP (Markakis, 2006). Thus pastoralism is one of major livelihood and production system in East African countries.

Swift (1988) defines pastoralism as a production system in which 50 % of gross household income comes from livestock or livestock related activities. Baxter (1994), further asserts that pastoralism is an occupation, and extends the term to individuals within groups holding such values, but who have been forced by destitution to non-livestock livelihood. Pastoralism has been considered the most appropriate land use system for more arid areas where crop production is not feasible. But today the pastoral systems are subjected to increasing population pressure and state government interventions through policies, laws and social ordering which weakens the traditional allocative mechanism leading to environmental degradation and is the pastoralists who are blamed for this. Outsiders usually do not understand the rationale of pastoral management systems. This leads to emphasis on settled agriculture, which results into varied problems faced by pastoralists today. However, recent studies have demonstrated that the pastoral systems are sustainable when left to their own devices.. This study intends to determine the impacts of changing pastoral land use systems on the environment and the livelihoods of communities dependent on communal range resources. The lessons to be learnt from the study will form the basis for enhancement and empowerment of local people in the Lake Victoria basin.

Pastoral Land Use Systems

Pastoral land use systems can be assessed by the type of livestock products, function of livestock and management principles. Management is characterised by extensive adoptive form of migration. As the zones become more humid the cropping potential grows the input, asset and security functions of livestock increases (Jenhke, 1983). Pastoral adaptations are extremely complex and carefully calculated (Ruthenberg, 1980). Grazing pattern is seasonal and involves transhumance movements at varying times of the year. Communal grazing is the basis for pastoral production systems and has been associated with overgrazing syndrome (Hardin, 1968). This is particularly relevant if grazing is scarce for meeting needs of the people concerned. Land is the most important complementary resource for pastoral production systems. Thus, the characteristics of particular pastoral system give an indication of basic resource endowments and production potential of the land (Sandford, 1980).

Background and Context

The Kagera River sub-Basin is a trans-boundary ecosystem shared by Burundi, Rwanda, Tanzania and Uganda. The basin's surface area of approximately 59,700 km² contributes significantly to the capture and largest river (400 km) inflow (about 24%) into Lake Victoria (equivalent to some 7.5 km³ of water per annum), and about 7 of 26 billion m³ annual outflow to the River Nile. The vast wetlands in the basin are vital for deposition of nutrients and eroded sediments thus maintaining the water quality in the Lake Victoria (UNEP/FAO, 2007).

The natural resources of the basin (soils, vegetation and landscapes) are influenced by both the rainfall and altitude giving four main agro-ecological zones:

- a wet highland zone in Rwanda and Burundi (alt. 1,900- 2,500m, rainfall 1,400-2,000mm),
- a central, incised plateaux extending into Uganda (alt. 1,500-1,900m, rainfall 1,000-1,400mm),
- the drier lowlands and floodplains (600-1,000 mm) shared by Rwanda, Uganda and Tanzania,
- a narrow zone with increasing rainfall eastwards reaching over 2,000mm on the fringes of Lake Victoria.

Inter-linkages between the highland and lowland ecosystems are important in terms of water regulation, also for the transfer of nutrients and sediments. These ecological processes are directly affected by human intervention which determines net losses upstream - runoff, erosion, fertility decline. It also determines net gains downstream; where there is a fine balance between benefits in terms of productivity of aquatic and terrestrial systems and risks of sediment/nutrient loading and flooding. For instance relatively high rainfall recorded in the area has led into weathering and leaching of soils resulting in poor inherent fertility (FAO/GEF, 2007).

The sub-Basin consists of a diversity of agricultural systems, which along with social organizations and cultural context vary widely within and among districts and countries. The main land use-livelihood systems in the basin are;

- Livestock based systems: transhumant/free grazing, paddock/ ranch
- Mixed systems: agro-forestry, crop-livestock (tethered, zero grazing); crop-fish
- Perennial arable/tree based systems: mainly banana and coffee, but also tea, cassava, mangoes, avocados
- Annual cropping systems – cereal-based and integrated to various extents with legumes, tubers and some agro-forestry species (e.g. *Grevillea*, *Cedrella*, *Calliandra*)

Yet, the farming system remains essentially *subsistence agriculture*. Only, limited areas are under commercial agriculture production (sugar cane, horticulture, coffee, tea). Some of the drier areas in eastern Rwanda and the drier belt across the NW Tanzania–Uganda border were, until recently, used for semi-nomadic pastoralism. The livestock sector provides milk and meat to urban markets, however, many livestock products are consumed at homesteads. In mixed systems, livestock is an important source of manure, especially in densely populated areas, and cattle and small stock are a way of accumulating capital. In lowland provinces of Rwanda and Burundi, cattle herds have quickly rebuilt, as large herds were brought back by ‘old’ refugees from Tanzania and Uganda. But most pastoralists have now settled to adopt other livelihoods. Again, across the basin there is an increasing breakdown in traditional land protocols that regulate grazing (UNEP/FAO, 2007).

Generally, the resource base in the basin is currently subjected to increasing pressure, which is a resultant of rapid population increase, poverty (average income

of about US\$1/day), and the cross-border migrations of people and their animals that have taken place over recent years due to civil strife. The increasing pressures on land resources are leading to changing land use systems, intensification of agriculture as well as livestock production, farm hold fragmentation and. and greater reliance on poorer lands for crop and livestock production and overall degradation of land resources (UNEP/FAO, 2007).

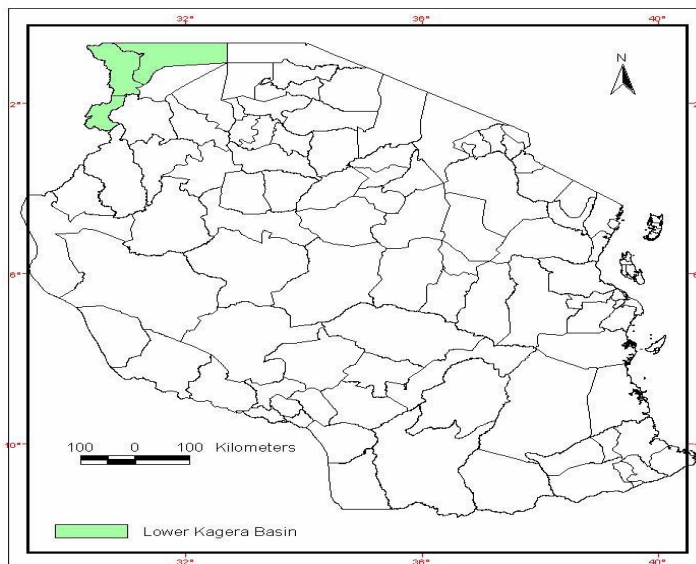
Furthermore, conserving the Kagera river flow regime and the sub-Basin ecosystem is very vital for maintenance of water level and quality in Lake Victoria and supports livelihood of approximately 16.5 million people, who are predominantly rural communities with a high dependence on natural resources base. The objective of this study was to establish the impacts of policy and legal reforms on pastoral systems in Kagera sub-Basin in a view to recommend on policy reforms that would sustain the environmental health in the sub-basin and improve livelihood of pastoralists through sustainable range productivity.

METHODOLOGY

Description of the Study Area

Location

The study was conducted in the Lower Kagera River basin extending in 4 districts (Ngara, Karagwe, Muleba and Missenyi) of Kagera region, North West Tanzania. The area is bounded between the longitude of approximately $30^{\circ} 30^1$ E of Greenwich and $30^{\circ} 00^1$ E of Greenwich, and between the latitude of approximately $1^{\circ} 00^1$ S of Equator and $3^{\circ} 30^1$ S of Equator. The Region borders on Uganda to the north and Rwanda and Burundi to the west (Map 1). To the east mainly borders Lake Victoria. The area covers approximately $39,370 \text{ km}^2$ (URT, 1998).



Map 1: Map of Tanzania showing the location of the lower Kagera sub-Basin

Climate

Due to the high altitude (1135 – 1600 m. a.s.l.), the closeness to Lake Victoria and the prevailing eastern to south-eastern winds the climate in the Region is fairly uniform. The temperature does not change remarkably through the year - ranging between 15° and 30° C. The average annual rainfall varies greatly in the Region. Rainfall is highest - above 2000 mm annually, in the north-eastern part of the area and decreases from there both towards the south and the west to levels of to 800-900 mm per annum. The annual rainfall distribution is as follows: firstly - there is a pronounced dry season in June, July and August. Secondly; is a brief dry spell often occurring in December, January and February. Thirdly, long rain season occurring in April and May and a much less reliable rain season occurring in June and August and a much less reliable one in September to November (URT, 1998).

Geomorphology

The predominant geomorphologic features of the area are the low broad mountain ridges, mainly running in the north-south direction. One rider system runs along Lake Victoria. Another is found 10-15 km further inland. Between them are to the north some partly dried up swampy areas. Further to the south the Ngoni River Valley and the Ruiga River Forest Reserve forms the depression between the two mountain ridges. Between the second mountain system and the Karagwe Mountains, a broad trough-shaped area is found, containing the Burigi and the Ikimba lakes and the Mwiza River. The Karagwe Mountains are also split up into ridge and valley systems. These are much sharper in contours than those found in the Muleba District. Their general direction is also north-south, although deviations are common, especially towards the west. The altitudes of the area vary from the mean Lake level of 1135m to 1600 m a.s.l.; the highest mountains in Karagwe reach an altitude of 1800m to 1850 m. The drainage system is to a great extent depending on the Kagera River and two of its tributaries, the Ngoni and the Mwiza Rivers (Quenell, 1956).

DATA COLLECTION METHODS

Both primary and secondary data were collected during this study. Secondary data were obtained through documentary search at University of Dar-Es-salaam library, Sokoine University library; Regional and Districts annual reports, Regional Socio-economic Profile and village meeting reports.

Sampling procedure

The social-economic survey was carried out in the Lower Kagera sub-basin in NW Tanzania. The study sites were selected from 4 districts of Kagera region, namely: Ngara, Karagwe, Missenyi and Muleba Districts. Three study villages were purposively selected from each of the districts. The criteria for selection were proximity to the Kagera River or its tributary; and presence of resident pastoralists or those sharing the communal grazing lands with pastoralists settled in neighbouring villages. A simple systematic sampling was employed to select respondents from each study village. The starting point was a resident pastoralist; thereafter every third household was selected. The sampling frame was a village registry obtained from the village executive officer, where the resident pastoralists

were identified. The sampling intensity was 10% of households in each study village. A range of 65 to 67 respondents were selected from each district.

Primary data collection

Participatory Rural Appraisal (PRA) approaches, participant observation, interviews and questionnaire survey were employed for collection of data.

Participatory Rural Appraisal approaches

Participatory Rural Appraisal (PRA) allows learning about rural conditions in an interactive, expeditious and intensive manner. A number of methods were employed including: transect walks, resource mapping and Venn diagramming, scoring and ranking.

Participant observation

The process of participant observation was used to tie together the more discrete elements of the data gathered by using other methods. It is an iterative method between participant observation and other research methods.

Questionnaire Surveys

Questionnaire surveys were conducted to obtain the household data on income generating activities, land acquisition, land-use conflicts and conflict resolution mechanisms. Both closed and open-ended questions were asked. Enumerators were employed to administer the questionnaires to household heads.

Key informants interviews

The key informants are the knowledge rich individuals in the study area. These included the village government officials; extension officers and District Land Court Magistrates. A checklist of issues was employed in data collection.

Secondary data collection

The secondary data were obtained from village assembly reports; ward tribunal reports; district annual reports and regional socio-economic profiles.

RESULTS

Social-economic Profile and Impacts of Land-use Policies

Land use activities

The results in Table 1 show the main land-use activities in the study area. The majority of respondents in all districts (74.0%) were practicing small hold farming, followed by agro-pastoralism (48.0%). Other were gardening (16.0%) and a forestation which is practiced in Muleba and Missenyi districts: pastoralism is only practiced by 11.0% of respondents in the study area, whereby the highest proportion was reported from Ngara district (20.0%), Karagwe district (10.6%), and Muleba district (6.1%).

The results suggest that the majority of respondents were rural based and highly dependent on land resources.

On interviewing key informants it was reported that most of the pastoralists were immigrants from the neighbouring countries of Rwanda and Uganda and most of them had been repatriated back to Rwanda since 2006. It was further observed (in January, 2011) at Kakunyu village in Missenyi, that the Tanzania police officers were confiscating cattle believed to have been illegally brought to the village from neighbouring areas in Uganda for the purpose of grazing at the communal grazing lands in Tanzania.

Table 1: Main land-use categories in the study area

| Land use categories | Number of Respondents | | | | |
|---------------------|-----------------------|-----------|-----------|------------|------------|
| | Mu | Ng | Ms | K | Total |
| Farming | 48(72.7) | 34(11.2) | 62(92.5) | 52 (80.00) | 194 (74.0) |
| Pastoralist | 4(6.1) | 13 (20.0) | 5 (0.8) | 7 (10.6) | 26(11.0) |
| Ago-pastoralism | 14(21.2) | 40 (60.9) | 20 (29.8) | 52 (80.0) | 126 (48.0) |
| Gardening | 9(13.6) | NA | 33(49.3) | 0 | 42 (16.0) |
| Afforestation | 5(7.6) | NA | 5(9.9) | 0 | 10(0.38) |

- *Number in brackets are percentages*

Key: Mu = Muleba, Ms = Missenyi, Ka = Karagwe, Ng = Ngara

Source: Fieldwork Results, 2011.

Farm holding characteristics

The farm hold characteristics in study area are presented in Table 2. The results shows that all respondents were rural-based and owned land. Muleba and Missenyi districts apparently face serious land scarcity, as 19.7% and 13.4 % of respondents in the two districts, respectively owned below one acre of land. The plausible explanation of these results is that Muleba district is one of the oldest districts in the region which is now heavily populated, thus facing increasing land scarcities. This has prompted migration of residents to neighbouring districts. On the other hand, Missenyi district is a newly established district which is sparsely populated. However land in the district is highly commoditized and large tracts of land are owned privately by external land speculators.

Table 2: Farm holding size Categories in the study area

| Farm holding size | Number of Respondents | | | | |
|-------------------|-----------------------|-----------|----------|-----------|------------|
| | Mu | Ms | Ka | Ng | Total |
| <1 acre | 13(19.7) | 9(13.4) | 0 | 0 | 22(8.4) |
| 1-2 acres | 7(10.6) | 23(34.4) | 8(12.3) | 30(46.6) | 68(25.8) |
| 3-5 acres | 5(4.5) | 8(11.9) | 13(20.6) | 21(35.0) | 41(17.8) |
| 6-10 acres | 5(7.6) | 4 (6.0) | 11(16.9) | 9(7.6) | 29(11.0) |
| 11-50 | 0 | 0 | 19(29.2) | 0 | 19(7.2) |
| 50-100 | 0 | 0 | 9(13.8) | 0 | 9(3.4) |
| >100 | 0 | 0 | 3 (4.6) | 0 | 3(1.1) |
| Don't know | 38(57.6) | 23(34.2) | 2 (3.0) | 0 | 63(23.5) |
| Total | 66(100) | 67(100.0) | 65(100) | 65(100.0) | 263(100.0) |

- *Numbers in brackets are percentages*

Key: Mu = Muleba, Ms = Missenyi, Ka = Karagwe, Ng = Ngara

Source: Fieldwork Results, 2010

Furthermore, most of the respondents in the study area own between 2-5 acres (25.8%) and 3-5 (17.6%) acres of land. Thus the land holding size is generally small to meet the subsistence household requirements. Karagwe district is apparently better off in terms of land holding, where 19% of respondents own between 10 to 50 acres of land. While about 18% of respondents own more than 50 acres of land. The district is endowed with fertile lands and suitable weather conditions that during 1960s and early 1970s had attracted high immigration of farming communities from the neighbouring districts facing high land scarcity. The immigrants purchased large tracts of land which was amply abundant.

The results imply that land parcels owned by respondents in the study area are very small. Such small landholdings imply unsustainable land parcelling, which is necessitated by population increase. This may - in turn, affect the people's livelihoods and can result in high levels of social unrest if people cannot get expected opportunity of exploiting the land for their survival. This is equally argued by Roberts and Kanaley (2006: 20) when clarifying case studies from Laos, Indonesia, Malaysia and Thailand, explaining their local governments implementing effective land use arrangements that limited land fragmentations.

Land acquisition methods

Results in Table 3 show methods of land acquisition in the study area. The main method of acquiring land was through inheritance (60.3%) mostly of customary lands; followed by buying (20.7%). Other means include hiring, which is mainly practiced in Karagwe and Missenyi districts. The two districts are at present not heavily populated and recently have been receiving immigrant farmers from nearby districts, who move into these districts in search of land for cultivation. The immigrants mainly acquire land through buying, or through hiring.

Table 3: Methods of land acquisition in the study area

| Method of acquisition | Number of Respondents | | | | |
|---------------------------------|-----------------------|----------|-----------|-----------|------------|
| | Ka | Mu | Ms | Ng | Total |
| Inherited | 19(30.6) | 56(84.8) | 31(13.4) | 51(78.4) | 157(60.3) |
| Allocated by village government | 5(8.1) | 0 | 2 (2.9) | 2(3.0) | 9(3.4) |
| Bought | 25(40.3) | 9 (4.5) | 9 (13.6) | 11(16.9) | 54(20.7) |
| Allocated during villagization | 1(1.6) | 1 (7.6) | 2 (2.9) | 0 | 5(1.5) |
| Hiring | 12(19.4) | 0 | 23(34.3) | 1(1.5) | 36(13.8) |
| Total | 62(100.0) | 66(100) | 67(100.0) | 65(100.0) | 260(100.0) |

- *Number in brackets are percentages*

Key: *Mu = Muleba, Ms = Missenyi, Ka = Karagwe, Ng = Ngara.*

Source: Fieldwork Results, 2010

Other immigrants into the area were the pastoralists from the neighbouring countries in Rwanda and Uganda. The key informants reported that the immigrant pastoralists were hiring village land from village government leaders. While some of the pastoralists were illegally accommodated in the area. During time of this study the illegal immigrant pastoralist were being forcibly evicted by the police officers.

A few villages were established during the *Ujamaa* village operation of the late 1960s. In such villages the village government had the mandates to allocate land. However, only a mere 1.5% of the respondents were allocated land during villagization operation. An equally small proportion (3.4 %) of respondents were allocated land by the village government. The results' implies that the customary tenorial system is predominant in the study area. Again, whereas the law prohibit the sale of land, but in practice the land market is well established in the area.

A customary land right is common in Muleba and Missenyi where it is widely acceptable as the legitimate one (Table 3). This echoes the position taken by Bruce and Migot-Adholla (1994) who demonstrated that customary land rights are as secure and acceptable in Africa as the legal ones . Similarly, Bruns and Mainzen-Dick (2000) noted that traditional land rights are equally powerful. The findings are in line with those of Benajaminsen and Lund (2003), who argue that a substantial proportions of the population in Africa hold land under customary arrangements. They further substantiated that customary tenure is also an important arrangement in other parts of the world including Latin America, Asia and the Pacific.

Gender aspects in access to land resources

Most of the respondents who own land in the study area had acquired it through inheritance, administered through customary institutional arrangements. However, these institutional arrangementse usually discriminative against women because - according to the tradition in the area, land is normally inherited by the oldest son. Results in Table 4 show the beneficiaries from the present arrangements for allocations of land.

Table 4: Beneficiaries of land-allocation system in the study area

| Beneficiary | Number of Respondents | | | | |
|--------------------|-----------------------|-------------|------------|------------|-------------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Men | 42(63.6%) | 56 (73.6%) | 62 (95.5%) | 53 (81.5) | 213 (80.6%) |
| Women | 16 (24.2%) | 8 (11.9%) | 1(1.5%) | 8 (12.3%) | 33(12.5%) |
| Orphans (under 18) | 8 (12.1%) | 3 (10.8%) | 2(3.0%) | 4(6.1%) | 17 (6.5%) |
| Total | 66(100.0%) | 67 (100.0%) | 65(100.0%) | 65(100.0%) | 263(100.0%) |

Source: Fieldwork Results, 2010

Men form the majority (80.6%) of those who own land in the study area. This is in line with the tradition practiced in the area, whereby men are given priority in land heritage. However, this is contrary to the law (the Village Land Act No.5 of 1999), which stresses equal opportunities of land inheritance to both gender, female or male.

Todate, there are cultural changes taking place in the area whereby women can now inherit the family land. A significant proportion of women (12.5% of the respondents) said they owned land. Women acquire land through buying, hiring or inheritance of family land. Most of the women owning land were coming from Muleba (24.2%) Karagwe (24.2%), Ngara (12.3%) and Missenyi (11.9%) districts. Markakis (2007) argues that in most pastoralist communities women play minor role in communities' decision-making and few have rights to land.

Perceived availability of land

During FGD in the study area and participant observations, it was established that most of the farmers own both upland and lowland farm plots. The study villages were located along Kagera River and its tributaries. The wetlands along that - plus its tributaries, has for long been supporting traditional irrigation systems. Most framers engage in the cultivation of both irrigated crops on wetland and upland rain fed crops. The main irrigated crops comprise vegetables (onions, tomatoes and cabbages) and sugarcane. The irrigated crops were reported in Missenyi and Muleba districts.

Results in Table 5 show the perceived land availability in the study area. Most of the respondents (69.2%) said that there are land shortages in their area - exception being Ngara and Karagwe districts where 86.3% and 31.3% of the respondents respectively said that there was no land shortage. All respondents in Muleba district reported the existence of land shortage - whereas only a small proportion of respondents (3%) refuted the existence of land shortage in Missenyi area. It was further revealed during FGD with village government officials from Missenyi, that there are substantial open grasslands and forests that have been grabbed and privatized by individuals. In turn, these individuals do not allow anybody to utilize it in anyway (10th-15th July 2010).

Table 5: Responses distribution on perceived land availability in the study area

| Number of Respondents | | | | | |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Presence of land shortage | Muleba | Ngara | Missenyi, | Karagwe, | Total |
| yes | 66(100.0) | 9 (13.7) | 65(97.0) | 42 (65.6) | 182(69.2) |
| no | 0 | 58 (86.3) | 2 (3.0) | 20 (31.3) | 80 (30.0) |
| Total | 66 (100.0) | 66 (100.0) | 67 (100.0) | 64 (100.0) | 263(100.0) |

- *Number in brackets are percentages*

Source: Fieldwork Results, 2010

Despite the presence of varied perceptions on land availability, in reality the majority of people in the study area were physically facing serious land shortages. This point was substantiated by a key informants who said that the current land policies are neither fair nor equitable as far as land distribution is concerned.

Results in Tale 6 show the perceived reasons for land shortages. Most of the respondents (90.4%) from all study districts singled out deficiencies in land policies as the main cause for land shortages experienced in their respective areas,

Table 6: Reasons for land shortage in the study area

| Reason | Number of Respondents | | | | |
|----------------------------|-----------------------|----------|-----------|-----------|-----------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Destitution | 14(21.2) | 2(3.0) | 3 (4.6) | 4 (6.1) | 23(8.7) |
| Deficiencies land policies | 50(75.8) | 65(97.0) | 62 (95.3) | 61 (93.8) | 238(90.4) |
| Large investors | 1(1.5) | Na | Na | Na | 1(0.09) |

- *Number in brackets are percentages*

Source: Field work results, 2010

Shortcomings of land laws and policies were also mentioned by members of FGD in study villages of Rutoro, Karambi, Luhija, Bubale, Kakunyu and Bugango.

The aspect of fairness and equity are basic characteristics of a land policy. Again these are the foundation on which the systems for land management, administration and development should be built. Another reason for land shortage was destitution, mentioned by 8.7% of respondents. High number of responses on destitution was reported from Muleba (21.2%) district. This is - most probably, due to the fact that Muleba district is facing high shortage of arable land leading to poverty - particularly amongst the rural communities.

Livestock ownership

Most of the respondents in the study area keep livestock, where the majority own cattle (61.2%) and goats (49.8). Most of livestock owners were found in Karagwe (95.4%) and Ngara (63.6%) districts (Table 7). The key informants reported that most of the cows raised in Muleba and Missenyi districts were upgrade stocks which were kept indoors, applying zero grazing .

Table 7: Livestock ownership by categories in the study area

| Type of livestock | Number of Respondents | | | | |
|-------------------|-----------------------|------------|-----------|-----------|------------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Cattle | 28(42.5) | 29 (43.3) | 62 (95.4) | 42 (63.6) | 161(61.2) |
| Goats | 18(27.3) | 29 (43.2) | 33 (50.7) | 51 (85.0) | 131(49.8) |
| Sheep | 9(13.6) | 6 (9.0) | 10 (15.3) | 16 (26.6) | 41 (15.5) |
| Chicken | 3 (4.5) | 2 (3.0) | 0 | 20(33.3) | 25 (9.5) |
| Ducks | 8 (12.1) | 1 (1.5) | 0 | 0 | 9 (3.4) |
| Total | 66 (100.0) | 67 (100.0) | 65(100.0) | 65(100.0) | 263(100.0) |

- *Number in brackets are percentages*

Source: Field Results 2010

During FGD in the study villages, it was revealed that most of the livestock owners kept just a few cattle ranging between one and 10 - whereas large herds of cattle were owned by immigrant pastoralists. These pastoralists were reported in Lutoro village (Muleba district), Mabira village (Karagwe district). Others were Lubale, Bugango and Kakunyu villages.(Missenyi district). In case of Ngara district, the key

informants reported that some of the village government leaders were illegally allocating village land to pastoralists from neighbouring Rwanda.

This practice has limited the land that was available for communal grazing due to privatization of village land previously set aside as communal grazing area. Similar cases were reported by key informants from Kakunyu, Bugango and Bubale villages (on 25th August 2010).

Results in Table 8 show the constraints that faced by livestock keepers in the study area. Most of the respondents (52.9%) identified shortage of grazing areas as the main constraint facing livestock keeping in the study area followed by lack of modern technologies (44.9%) for improving animal production.

Table 8: Constraints faced by livestock keepers in the study area

| Constraint | Number of Respondents | | | | |
|-----------------------------|-----------------------|-----------------|----------------|----------------|-----------------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Poverty | 7 (10.6)* | 22 (32.8) | 6 (9.2) | 13(20.0) | 46(18.2) |
| Lack of grazing areas | 34 (50.0) | 21 (28.4) | 58 (89.2) | 26(40.0) | 139(52.9) |
| Lack of modern technologies | 25 (37.9) | 25 (37.5) | 31(47.9) | 37(56.9) | 118(44.9) |
| Total | 66(100) | 67(100.) | 65(100) | 65(100) | 263(100) |

**Number in brackets are percentages*

Source: Field work results: 2010

Serious shortages of grazing lands were reported in Karagwe (89.2%) and Muleba (50%) districts. The shortages might be attributed to serious land scarcities in the two districts owing to increasing population pressures. Again the shortages might be attributed to increased privatization of grazing lands which were previously accessed as village communal lands.

This has prompted migration of residents to neighbouring districts. On the other hand, Missenyi district is a newly established district which is sparsely populated. However, land in the district is highly commoditized and large tracts of land are owned privately by external land speculators. The created shortage of land in the district has lead to evolution of alternative means of accessing land such as loaning and share cropping arrangements. Loaning of land was widely practiced in the western and northern parts of Missenyi district. However, the key informants from Bubale village reported that as land becomes increasingly scarce, the loaning of land hass become of much shorter durations - rarely exceeding two to three years. Pledging or mortgaging of land against receipt of cash loan is also applied as a means to grantee against loan risks. However, such arrangements are prone to disputes, since the detailed terms of lease are rarely discussed - leading to uncertainty regarding the likely length of time before the loan will be settled.

Occurrence of land-use conflicts

Results in Table 9 show that most of respondents (93.9%) acknowledged existence of land-use conflicts in the study area. Highest incidences of conflicts were reported

from Ngara and Misseny districts, where the conflicts are associated with immigrant pastoralists from Rwanda and Uganda respectively. The key informants in Misseny reported that pastoralists from Uganda were colluding with some residents in the border village of Mugango, Mabale and Mabila to graze their livestock in village land at night.

Table 9: Responses distribution on occurrence of land-use conflicts

| Occurrence of land-use conflicts | Number of Respondents | | | | |
|----------------------------------|-----------------------|---------|-----------|---------|-----------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Yes | 63 (94)* | 66(100) | 53 (81.5) | 65(100) | 247(93.9) |
| No | 4(6.0) | 0 | 12 (18.5) | 0 | 16(6.1) |
| Total | 67(100.) | 66(100) | 65(100) | 65(100) | 263(100) |

**Number in brackets are percentages*

Source: Field work Result, 2010

The types of land-use conflicts identified during FGD were as follows:

- (i) farmers against pastoralists conflicts
- (ii) farmers against farmers conflicts
- (iii) farmers against investors conflicts
- (iv) farmers against the state conflicts

During focus-group-discussion at Rutoro village within Kagoma ranch in Muleba district, it was established that farmer vs pastoralist conflict had been raging on since 2005 up to date. In this case, pastoralists owning large herds of cattle from Karagwe district; were sub-leased part of Rutoro village by Kagoma national ranch. Previously, Kagoma ranch had expropriated the Rutoro village land into the ranch's surveyed area, and sub-divided it into eighteen cattle rearing blocks. These blocks have since been hired to rich pastoralists from Karagwe who came into the area as investors.

During interviews with the Rutoro village chairman and village government officials it was reported that the indigenous people in Rutoro village were left to suffer; whereby their coffee-plots and banana plots plus cereal crops had been destroyed by large herds of cattle. Their houses had been destroyed by the new investors, who claimed to clear the grazing areas and setting the boundaries of their hired blocks.

The dispute over ownership of Rutoro village land has been shrouded in doubts, as the Bukoba District Land Court failed to file up the Rutoro village case against Kagoma ranch. This is despite the fact that Rutoro is a registered village established during settlement schemes of 1970s but it was not surveyed; whereas Kagoma ranch had surveyed its area and possessa certificate of land occupancy. The land Court at Bukoba argued that the Kagoma ranch had undisputed right to act in a way they did. The court explained the centrality of this argument, and the resident magistrate ruled in favour of the ranch.

The second nature of conflicts reported during FGD (between August 2010 and August 2011), involved mostly the village government officials who were selling off village land to individuals without following the laid down procedures as stipulated in the land law. A point in case includes Village Government officials at Karambi (Muleba district), Bubale and Bugango villages (Missenyi district). This practice has created serious land shortages in the respective villages. Through such corruptive means, rich people have acquired large portions of land in Missenyi district owing to their political influence/connections.

Lastly, the key informants from Karagwe district reported incidences of crop damages caused by large pastoral herds which were herded through their farms. The pastoralists - in most cases, were protected from prosecution by government officials - both at village and district levels.

Results in Table 10 show responses on existence of local mechanisms to resolving land- use conflicts. The majority of respondents (80.6%) said that there exists local-mechanism for resolving land-use conflicts.

Table 10: Response distribution on existence of local mechanism for resolution of land-use conflicts

| Existence of local mechanism to resolve land-use conflicts | Number of Respondents | | | | |
|--|-----------------------|----------|----------|----------|-----------|
| | Muleba | Misenyi | Karagwe | Ngara | Total |
| Yes | 65(97) | 54(75.) | 51(78.5) | 42(64.6) | 212(80.6) |
| No | 2(30.0) | 12(18.1) | 14(21.5) | 23(35.4) | 51(19.4) |
| Total | 67(100) | 66(100.) | 65(100) | 65(100) | 65(100) |

- *Number in brackets are percentages*

Source: Fieldwork Results, 2010

During the FGD in Rutoro, Karambi, Luhija, Bubale, Bugango and Kakunyu villages' participants referred to informal negotiations mediated by local leaders to be the most effective method to resolve land-use conflicts. However, todate such customary agreements are being eroded and undermined because most of the people are increasingly resorting to the formal procedures. Moreover, there is lack of coherent institutional mechanism to support customary arrangements due to the absence of traditional chiefs who could be used to oversee the customary institutions. Furthermore, in principle, the law (Land Act of 1999, section 180 (1)) provide for the application of customary law in land matters. However, some of the customary laws are gender biased in favour of males. In some instances, these had been misinterpreted.

Institutional Frameworks for Administration of Land Resources

Legal structures

The legal structures that administer land in Tanzania are on three tiers: the Village Land Tribunal; Ward Land Tribunal and District Land Courts. The Land Act No.4 of 1999 Section 167 (i) (URT, 1999) establishes the court which was expected to deal with land matters at district level. Above the district level, there are the Courts

of Appeal of Tanzania and the Land Division of the High Court. The above establishment was further strengthened by the creation of specific courts called the Land Dispute Court (Land Act No.2 of 2002).

In relation to the above establishment and clarifications, the Land Dispute Court Act No.2 of 2002, established the machinery for land dispute resolution. By 2003, there were made regulations on Village Land Act No.5 of 1999, namely the general regulation No. 174, with direct modalities and the style of operation. The system of land tribunals was set to speed up the hearing of the land disputes and finally settling such dispute. Secondly the system of land tribunals was meant to be an independent system.

However, both Village Land Tribunal and Ward Land Tribunals are being confronted by two set-backs: mainly poor working conditions and constraints of resources. They are also lacking the legal professionals. The officers-life-span in these tribunals is only three years - hence the issue of trainability appears to be a problem. Furthermore, the tribunals' officials do not have specific allowances and they don't have official salaries though they deal with crucial and sensitive issues of land.

In principle, all village and ward tribunals are controlled by the local government while the District Land and Housing courts are controlled by the Ministry of Lands and, the high court is under the Ministry of Constitution and Judiciary. As there is no clear line of demarcation, such arrangement may give rise to conflicts of interest.

During FGD with the officials from the village and ward land tribunals; it was reported that all tribunals were facing poor administration under the District Local Governments. They complained that they were marginalized by the Local Governments, which denied them official allowances or salaries. Hence most of them failed to meet their basic needs because they spent a lot of time in unpaid labour activities, which have a negative effect on their job performance.

Secondly, they said that their knowledge on land law was limited thus they argued that they needed extra skills related to land law in order to operate as specialists. They deliberated that their poor knowledge of land law makes them face hard time in trying to work on resolving land disputes. They stated clearly that they had at times been challenged by their clients. Thirdly, these officials from the village and ward tribunals reported of shortage of working tools such as papers, pens, files, offices and gadgets to keep case files safely.

All these shortcomings had impaired their working efficiency. Thus their performance in discharging their mandatory duties was doubtful and justice over land matters had failed. The key informants from the study villages reported on allegations of corruption at both Village and Ward Tribunals.

Notwithstanding, the shortcomings mentioned above, according to the laws governing land tenure in Tanzania (URT 1999) all registered villages are organized

around the four tiers of governance: village assembly, village council, village land committee and village executive officer. These organs are the legal custodians of village land and other communal natural resources.

District level institutions administering land resources

The key informants observed that the land resources at district level were administered by the Heads of Sectoral Departments including: Natural Resources, Fisheries, Forestry, Wildlife, Livestock, Agriculture and lands. These institutions mirror the national level institutions and are set up and coordinated by Sectoral Ministries through district level departments. These institutions are characterised by rigidity, slow to act on land related matters and lack of inter-linkages on land issues among themselves and other stakeholders such as the private sector; donor community, and NGOs.

The parent ministries which administer different sectors of land resources include: the Ministry of Land and urban Development; Livestock and Fisheries Development, Ministry of Agriculture and Food Security (MAFs); Ministry of Natural Resources and Tourism (MNRT); The President's Office and Regional Administration and Local Government.

It was observed that the inter-ministerial institutions, namely: Department of Environment in the Vice President Office, the National Environment Management Council (NEMC), the National Land Use Planning Commission), are inherently the directors who are expected to provide macro land directives and decisions on land related matters. However, there is generally weak linkage and poor information flow between central level and the district, wards and villages. Thus the macro level organs are least conversant with challenges and needs at the grassroots.

On village land administration, it was reported by one key informant from Kakunyu that practically the village land is controlled from above where the commissioner for land seems to control the village land in the distribution of bigger acreages of land to government officials, investors, politicians and rich people, without regard to needs of local communities.

Policy Instruments governing Access to Pastoral Resources

A number of newly introduced policies, strategies, laws and other planned initiatives have direct or indirect impact on pastoralism and pastoralists' livelihoods in Tanzania. These policies with include:

Policies dealing with overall national development

- The National Strategy for Growth and Reduction of Poverty (NSGRP) of 2004
- The Rural Development Strategy (RDS) of 2001
- The Agricultural Sector Development Strategy (ASDS) of 2001

The NSGRP (2004) recognizes the need to institutionalise community participation rather than as a one-off event. This offers an opportunity for pastoralists to engage with government in various policies and strategies. Again NSGRP recognize

“pastoralism as a sustainable livelihood” this provides a window through which the Government could be urged to take steps to implement those proposals that would be in the interests of pastoralists’ livelihoods.

The NSCRP (2004) further promote efficient utilization of rangelands and aims at empowering pastoralist institutions; promote programmes that will increase income generating opportunities for women and men in rural areas. It also advocates promotion of service delivery like constructing more *charcos* dams, improve access and quality of veterinary services, and promote dairy and leather industries, and to ensure improved access to reliable water supplies for livestock development through promotion of small-scale rainwater harvesting. Therefore the NSGRP offers opportunity for pastoralists to assert their rights.

The RDS (2001), because of their migration habits consider pastoralists to have negative consequences, like land degradation due to overgrazing, land- use conflicts and the spread of animal diseases. It proposes resettling pastoralists on a permanent basis by identifying and demarcating pastoral land, issuing of land title deeds to livestock keepers, improving water infrastructure in all livestock keeping areas and launching disease control campaigns. It considers sedentarization as the way of addressing the problems of pastoralists.

The ASDS (2001) aims at the creation of an enabling and conducive environment for improving the productivity and profitability of the livestock sector as the basis for improved farm incomes and rural poverty reduction. It also, envisions that, by 2025, the sector will be modernized, commercialised, highly productive and profitable and a sector that utilizes natural resources in sustainable manner and acts as basis for inter-sectoral linkages. The main objective of the ASDS was to create a favourable climate for commercial activities; and clarifying public and private roles in improving support services. The ASDS recommends streamlining procedures for gaining legal access to land in order to make it possible to use land titles as collateral for loans.

It further recommends demarcation and allocation of land to be used by pastoralists and agro- pastoralists. The Government was required to prepare comprehensive land-use maps to indicate areas suitable for cropping, grazing and for private sector investment. It also advocates entry of large-scale investors into the sector who will lead to modernization. The implication of this strategy is the increased ease of land alienation from local communities and increased potential conflicts among various resource users including pastoralists.

Livestock sector policies and legal framework

These policies directly impact on pastoral practices and livelihoods, these are:

- Agricultural and Livestock Policy (ALP) of 1997
- National Livestock Policy (NLP) of 2006
- The proposed Beef Industry Act (BIA) of 2007

The ALP (1997) considers mobile pastoral system whereby cattle were moved from over-stocked to under-stocked land areas, if un-regulated was likely to give rise to

land-use conflicts with settled communities. The policy recommends a top-down government regulated movement of livestock, based on management models which are alien to pastoralists, rather than building on the existing mobility mechanisms which are based on local knowledge and experience. The Policy acknowledges the urgent need to secure grazing lands for pastoral communities and the provision of services. However, it lacked the legal mandate by the concerned Ministries to implement issues pertaining to land, and the lack of will on the part of Ministry officials.

The National Livestock Policy (NLP) 2006 envisions developing a full-fledged commercial, modern and sustainable livestock sector by year 2025 that will be highly productive. But, there is no policy statement to support pastoral systems to help in the conservation of natural resources and cultural heritage while providing for the improvement of their standard of living. The policy does not even define pastoralism and agro-pastoralism except by equating it with the extensive livestock production system. Again, pastoralism is labelled as being an 'inefficient system' which has poor animal husbandry practices, lacks modernization, based on irrational behaviour to accumulate stock beyond the carrying capacity, and lacks market orientation. The social aspect of pastoralism is completely ignored in the policy's pursuit for modernization and commercialization of the livestock sector. In essence, the new livestock policy is anti-pastoralism and wishes it away.

The proposed Beef Act proposes formation of Industry Board that will regulate the meat industry in the country. The main objective is to organize the marketing of meat and meat products both nationally and internationally. However, the proposed membership of the Meat Industry Board and the General Assembly for the Meat Industry Board give very little opportunity for pastoralists to have a meaningful input into these organs.

Policies governing access to pastoral resources

These policies directly or indirectly affect pastoralism

- The National Land Policy (NLP) of 1995
- The Land Act, 1999 and Village Land Act (LA) of 1999
- Tanzania Investment Act, (TIA) of 1997

The overall aim of the National Land Policy, 1995 (URT, 1995) is to promote and ensure a secure land tenure system, to encourage the optimal use of land resources, and to facilitate broad-based social and economic development without endangering the environment. Some of the specific objectives of the policy includes: promoting an equitable distribution of, and access to, land by all citizens and ensure that existing customary rights of smallholder peasants and herdsmen are recognized, clarified and secured in law. Others are streamlining the institutional arrangements in land administration and land dispute adjudication and also make them more transparent.

The Village Land Act of 1999 (URT, 1999) recognizes customary rights of occupancy for which a certificate may be issued, and communal village land that

could be shared between pastoralists and agriculturalists. However, while this Act provides opportunities for security of tenure by small holders, but customary titling may extend to the individualization of land holding and will interfere with communal use of pastoral resources. This will amount to fragment the commons, which will interfere with traditional arrangements for utilization of common grazing resources. Its enactment and the repeal of the Range Development and Management Act, 1964 and the Rural Lands (planning and utilization) Act of 1973 pose a great threat to pastoralists' livelihoods.

The Tanzania Investment Act of 1997 (URT, 1997) allows non-citizens to own land for the purpose of investment. Its enactment was followed by setting aside Land Bank under TIC. This in effect will take away land already occupied by people such as nomadic pastoralists and other vulnerable communities.

The Grazing Lands and Animal Feed Resources Act No.3 of 2010 (URT, 2010) aims at increased productivity of Tanzania's Rangelands and livestock sector. The Act proposes to establish Range Development Areas, where rangeland developments shall be installed, used, maintained or modified in a manner consistent with multiple use management. However, such vision fails to accommodate the highly dispersed and unpredictable nature of natural resources in Tanzania.

Policies and laws dealing with pastoralism and conservation

These include;

- The Environmental Management Act of 2004)
- The Wildlife Conservation Act No. 12 of 1974 (as amended in 1978))
- The Wildlife Policy of Tanzania of 1998

The main objective of the Environmental Management Act of 2004 is to promote the enhancement, protection, conservation and management of the environment. This Act identifies a number of areas as sensitive and closed for livestock keeping, occupation and cultivation. The act is not clear on measures to be taken in supporting and preserving mobile pastoral systems to help in the conservation of natural resources and cultural heritage.

The Wildlife Conservation Act No. 12 of 1974 (as amended in 1978), grants powers to the Government to disposes pastoralists of their lands but it is silent on what should happen to those who had traditionally relied on such lands, either by way of compensation or otherwise. Furthermore, the Act places severe restrictions on accessing land declared a Game Reserve or Game Controlled Area. Most of the protected areas in the country are either pastoral lands or were used by pastoralists in the past. The Wildlife Management Policy 1998 -- while promoting local community participation in conserving and exploiting wildlife resources, also facilitates the marginalization of pastoralists by encouraging more land to be brought under wildlife conservation at the expense of pastoral activities.

Kauzeni (1998), argues that land resources in Tanzania are essentially controlled by the state, where the tenure rights are often unclear and contested. While, the existing

land resource policies and laws pose a problem in ensuring equitable access to land resources

DISCUSSION

Pastoralism is an important land-use system and supported a sizeable population of the local people in the Kagera sub-basin. The area is characterised by dense animal populations notably the long-horned Ankole cattle, in addition to sheep and goats that were kept on extensive communal grazing lands. However, the traditional grazing systems commonly practiced in the area are currently undergoing transformations that have far reaching socio-economic as well as environmental consequences.

Findings in this study shows that the main factors underlying transformation in the area were the endogenous ones comprising of the local communities, their cultural institutions, and the natural resource base and their response to exogenous factors including economic pressure, policy environment and market forces. The outcomes reflects the condition of resource base, economic production and efficiency of the existing land resources allocative institutions. The interdependence of pastoral systems with other external systems to shape the pastoral livelihoods was reported by a number of workers, including Nori *et al.*, (2005).

The local communities in the study area were mainly smallholder farmers and pastoralists with high dependence on natural resource base, particularly land resources. The area was generally facing an increasing scarcity of arable land. Livestock in the area assumes savings roles, whereby pastoralists with large cattle herds constitute a wealthier group category. But, most of the members in this wealth category were immigrant pastoralists from neighbouring Rwanda and Uganda. Some of them were on their third generation living in Tanzania.

Until recently pastoralists in the study area were largely dependent on communal grazing lands. However, current policy environment has engendered a shift from communally owned grazing system ownership towards privately owned grazing land. The shift was partly triggered of by recent policy changes that led to repatriation of some pastoralists from Karagwe district back to Uganda and Rwanda (that started in the 2006). This measure underscores the tenure insecurity inherent with communal grazing lands in pastoral systems. Yet, most of the repatriated pastoralists had relocated to other areas of Lower Kagera basin in Tanzania, where they have purchased land for purpose of establishing commercial ranches. This was made possible by recent policy changes in pastoral and land sectors that promote commercialization and private ownership of land. The changes also made it possible for foreigners to own land in the Tanzania for the purpose of investment. Branco (2006) observes that land tenure reforms have traditionally favoured intensive land uses like commercial ranching or settled agriculture.

Notwithstanding, the tenurial security to rich pastoralists, the changes has ushered in other social-economic problems. In particular the emerging official land market has generated land scarcities at grassroots. There are now increasing cases of land

grabbing, a number of rich people (both from within and outside the country) were collaborating with village authorities, district and or Ministry level officials to buy large tracts of village communal lands. This has led to increasing land scarcity at village levels. Nori *et al.* (2005) argues that increased market integration of pastoral communities has led to marginalisation of resource poor herders and peasants.

On the other hand most of village grazing lands that were used communally were now being the partitioned and privatised by individuals. But the partitioning of communal grazing lands does not go hand in hand with improvement of livestock production. As a result large herds of cattle were being restricted to small parcels of land, thus posing increasing threats of land degradation likely to arise from overgrazing and soil erosion.

These findings suggest that the market relations have disrupted tenure relationship since land has acquired considerable market value. This implies that the recent land policy reforms and new legislature had rendered the land to be turned into a commodity and the village governments seem ineffective to handle these factors of land administration. Generally there is massive exclusion of the majority of local communities from land resources. This has in turn exacerbated disputes between farmers and pastoralists; as well as indigenous communities and incoming investors. These findings call into question the tenure security of land held under deemed rights arrangements by indigenous communities, which sometimes led to their expulsion from their traditional lands.

Studies on property rights in pastoral and agro-pastoral areas have established several pathways of changes on communal grazing lands (Galaty, 1992; Stiles 1992; Behnke, 1994). The Bromley model of “property-rights gradient” (Bromley, 1992) predicts a pathway of property-rights change with resources moving from open access to private property as population growth lead to increased land scarcity. Therefore the tenure systems that exist within any pastoral area reflect on a stage of economic development and on population pressure. At local levels, processes of economic and social differentiation may lead to different claims over land. Again a number of policies have directly or indirectly influence on the pace and direction of land use changes in the area. It is therefore imperative to device the policies that should aim at achieving economic efficiency, environmental integrity, improved livelihoods and equity (ODI, 2009).

Policy interventions and development plans that aimed at modernizing or commercialising the pastoralists in most parts of Africa; often failed due to ignoring the needs of people at grassroots and fundamentals of pastoralism. This in turn had exacerbated - rather than ameliorating – the deterioration of environmental, economic, and social conditions for pastoral communities (Branco, 2006; ODI, 2009).

CONCLUSION

It can be concluded that the recent land law reforms have created some challenges as well as opportunities for pastoral production systems. The main outcomes of these reforms include increased commoditization of the land that led to

expropriation of communal grazing lands to individuals, with the subsequent partitioning of the range lands. The main challenge is that most of vulnerable and poor members of the community are losing access of livelihood support systems which were owned communally. Again the pastoral systems are increasingly getting commercialized. The emerging opportunities are that upon the changing tenure system, the previously communally owned range lands are now amenable to intensification through introduction of technologies for increased range and animal productivity, while sustaining the environmental health.

RECOMMENDATIONS

The sustenance and survival of pastoral resources depend on the appropriateness and effectiveness of policies of land allocation, utilisation and management. It is therefore necessary to introduce holistic land uses policies that are inclusive and sensitive to the needs of more vulnerable groups in a particular locality. It is further recommended that policy interventions in pastoral systems should ensure both social economic and ecological sustainability in pastoral system in the Kagera sub-basin in particular; and Lake Victoria basin in general.

In order to cope with limited pastoral movements arising from sedentarisation it is recommended to introduce new technologies that will improve both livestock and rangelands productivity, while conserving the environmental health.

Again it is recommended to carry out studies to establish the appropriate carrying capacity of rangelands at different localities and enhancing their productivity; while at the same time monitoring the quality of surface water. Other interventions should target at reducing runoffs, preventing soil erosion and controlling sedimentation.

REFERENCES

- Anderson, T. L. and Hill P. J. (1975). The evolution of property rights: A study of the American west. *Journal of law and Economics* **18(1)**: 153 – 179
- Baxter, P. T. W. (1994). Pastoralists are People: Why development for pastoralists not the development of pastoralism? In Morton J and N. Meadows, 2000. *Pastoralism and sustainable livelihoods: An emerging agenda*. Policy Series 11. NRI, University of Greenwich, London. 50 pp.
- Behnke R. H. (1994). Natural Resource Management in Pastoral Africa. London: Commonwealth Secretariat. pp 60 – 87
- Benjaminsen, T. A. and C. Lund (2003). Securing land rights in Africa. London. Frank Cass. www.nai.uu.se/Publications/benjaminsen-staastad.p15
- Bianco, A. L. (2006) Land tenure rights and practices of pastoralists and its implication on poverty reduction: A comparative study of Ethiopia, Eritrea and Tanzania. FAO, 97 pp
- Brenner, R. (1983). History : The Human Gamble. Chicago. University of Chicago Press. 269 pp
- Bromley, D. W. (Ed), (1992). Making the Commons Work. San Francisco. ICS Press. 463 pp.
- Bruce, J. W. and S, E, Migot-Adholla (1994) Searching for land tenure security in Africa. Kendall/Hunt; 282 pp.

- Bruns, B. R. and R. S. Meinzen-Dick (2000). Negotiating water rights. London. IT Press. 314 pp
- Demsetz, H. (1967). Toward a theory of property rights. *American Economic Review*. 73 (1): 347 – 359.
- EIU, (2006). Country profile Tanzania and Comoros 2005 – 2006. *Economic Intelligence Unit*. 68 pp.
- EIU, (1997). Country profile Tanzania 1998-1997. *Economic Intelligence Unit*. 71 pp
- FAO/GEF (2007) Transboundary Agro-ecosystem Management Programme for the Kagera River Basin (Kagera TAMP). Pp 177
- Galaty, J. G. (1992). The land is yours: Social and economic factors in the privatisation, sub – division and sale of Maasai ranches. *Nomadic People* 30:26 – 40.
- Hardin G. (1968). The tragedy of the commons. *Science* 162: 1243 – 8
- Jenhke, H. E. (1982). Livestock production systems and livestock development in tropical Africa. Kiel, Germany. Kieler Wissenschaftsverlog, Vauk. 253 pp
- Juma, C. and Ojwang, J. B. (1996). In land we trust. *Environment, private property and constitutional change*. Zen books. UK. 426 pg.
- Kauzen, A.S. Shechambo, F. C. and Juma, I. (1998). *Private and communal property ownership regimes in Tanzania*. Land Reforms. FAO. 137 pp.
- Khanna, P and Kandawar, V. K. (1991). Remote sensing for national development. *Current science, Indian Journal of Remote Sensing* 61: 121 – 124
- Lane C., (1998). *Custodian of the commons: pastoral land tenure in east and West Africa*, London: Earth scan. 320 pp
- Lane, C. and I. Swift, (1989). Barabaig natural resource management. In Young, M. D. and O. T. Solbrig (eds). *The Worlds savanna, Man and Biosphere Series*. Vol 12. UNESCO Publication. pp 93 - 120
- Markakis, J. (2006). *Pastoralism on the margins. Report*. Minority Rights Group International 40 pp.
- Nori, M. Switzer, J. Crowford, A. (2005). Herding on the brink: Towards a Global Survey of Pastoral Communities and Conflicts. IISD. 162 pp.
- North, D. C. (1995). The new institutional economics and third world economics. In: *The new institutional economics and third world economics*. Eds. Haris J., J. Hunter. Pp 53 - 98
- ODI (2009). Pastoralism, policies and practice in the Horn and East Africa: A review of current trends. Synthesis paper. HPG.4 pp
- Pratt, D.J. and M.D. Gwynne. (1977). Rangeland Management and ecology in East Africa. London. Hodder and Stoughton. 310 pp.
- Quenell, A. M. (1956). The Bukoban System of eastern Africa. Intern. Geol. Congr 20th Session. Mexico 1956.
- Ruthenberg, H. (1980). *Farming systems in the tropics*. Oxford Scientific Publications: pp 86 –110.
- Ruttan, V. M. and Y. Hayami, (1984). Towards theory of induced institutional innovation, *Journal of Development Studies* 20: 203 – 223.
- Sandford, S. (1983). Management of pastoral development in the third world. Chichester. UK. John Willy & Sons. pp 213 – 228.

- Stiles, D. (1992). The Gabbra: Traditional society factors in aspects of land-use management. *Nomadic Peoples* 30:41- 52.
- Swallow, B. M. (1990). *Strategies and tenure in African livestock development*. LTC Paper 140. Madison Land Tenure Centre, University of Wisconsin, Madison. pp ix.
- Swift, J. (1996). Dynamic ecological system and the administration of pastoral development. In Scoones, I. (edt). *Living with uncertainty: New directions in pastoral development in pastoral development in Africa*. IIED, Intermediate Technology Publications Ltd. London. pg153 – 173.
- UNEP/FAO (2007). Trans-boundary agro-ecosystem management programm for the kagera River basin (TAMP). Report. 102 pp.
- United Republic of Tanzania, URT (1998). Kagera Region Socio-Economic Profile. 285 pp
- United Republic of Tanzania, URT (2000). Poverty Reduction Strategy Paper (PRSP). Government Printers. Dar Es Salaam. 54 pp.
- United Republic of Tanzania , URT (1999). The Tanzania Development Vision 2025.President’s Office, Planning Commission. Dar -Es -Salaam. 32 pp
- United Republic of Tanzania , URT (1995). The National Land Policy Government Printer, DSM. 49 pp
- United Republic of Tanzania, URT (1997). National Agriculture and Livestock Policy. Ministry of Agriculture. 161 pp
- United Republic of Tanzania , URT (2010). The Grazing lands and Animal Feed Resources Act No.3 of 2010. Government Printers. Dar-Es-Salaam. 32 pp.
- United Republic of Tanzania, URT (2001). The Agricultural Sector Development Strategy, The Agricultural Sector Lead Ministries, Dar- Es - Salaam. 73 pp.
- United Republic of Tanzania, URT (2002). The Agricultural Sector Development Programme, The Agricultural Sector.
- United Republic of Tanzania , URT (2001). Rural Development Strategy (RDS). The Prime Ministers Office. Dar- Es- Salaam, 88 pp.
- United Republic of Tanzania, URT (1996). The National Investment Policy. Presidents Office, Planning Commission. Dar_Es-Salaam. 59 pp.
- United Republic of Tanzania, URT (1997). National Environmental Policy. Vice Presidents Office. Dar-Es-salaam. 44 pp.
- United Republic of Tanzania, URT (1998). Tanzania Wildlife Policy. Ministry of Natural Resources and Tourism. 41 pp.
- United Republic of Tanzania, URT (1998). Local Government Reform Programme. Ministry of Regional Administration and Local Government. Dar-Es-salaam. 51 pp.