



Land Use Conflicts Escalation as Aftermath of Pastoralists In-migration in Rufiji District, Tanzania

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Abstract: Pastoralists' migration has created land-use pressure and conflicts in many areas. A cross-sectional study was conducted in Rufiji district whereby surveys, focus group discussions, interviews, and documentary reviews were used to collect data. Multistage sampling techniques was applied to select the divisions, wards and villages for the study. The k^{th} factor formula was applied to pick the sampled villages and households for the study. A semi-structured questionnaire was administered among 200 households. Forty (40) respondents from 40 households who were purposively selected from each of the 5 villages which made a total of 200 respondents who aged above 30 years in the period of data collection and who have been in the village since 2000 or before. Content analysis was the main technique for analysing data which were collected through the key informant interviews and focus group discussions. Moreover, data collected using the questionnaire were analysed using descriptive statistics. The findings showed that land-use conflicts occur the study area that escalated after the arrival of pastoralists, however, the occurred conflicts have been solved through various techniques and through involvement of different stakeholders as conflict resolution actors. The most erupting conflict is between pastoralists and natives crop farmers. The findings also show that there were efforts and mechanisms to reduce the land-use conflicts including involvement of the stakeholders in conflict resolutions. The study concludes that land-use conflicts and the conflicting actors have increased since the arrival of pastoralists. The study recommends the establishment of proper mechanisms of resettling pastoralists in the study area, the need to strengthen locally applied techniques to resolve land-use conflicts than enforcing laws and by-laws, ensuring that all villages have established and allocated areas for pastoralists and native farmers to undertake their economic activities. The village government officials should observe and respect procedures for land allocation as stipulated in the Tanzania Village land act.

Keywords: pastoralists, land-use conflicts, conflicting parties, and conflict mediation

1.0 Introduction

Land resources play an important role in shaping rural livelihoods. They are considered a source of wealth, tribe identity, and social peace, but can also act as a source of conflicts. Humans are arguably largely responsible for land and natural resources management because they can engage in productive activities that require planning, technology and collective work. For this reason, the land has always been an important aspect in defining and reshaping relations between humans (Bashir, 2012).

Experience shows that in Tanzania, as it is the case for the rest of Africa, the land is a primary asset for survival and a major source of income and livelihood for the rural population. It also carries spiritual values with it. Therefore, access to land resources is not merely a matter of productive use of the ecological environment; it involves power and symbolic relations (Meur *et. al.*, 2006). Due to increased population pressure and the diversification of rural land-use patterns in Tanzania (i.e. the expansion of settled and

ranching farming, national parks, towns, and settlements) access to pasture and water for livestock has declined thus prompting pastoralists to migrate to the central, eastern and southern parts of the country (Odgaard, 2005; Mattee and Shem, 2006).

Tanzania, like many other developing countries, depends heavily on land resources for its economic development which is contributed by sectors like pastoralism and agriculture (crop cultivation), with agriculture being the major economic activity as it employs about three-quarters of the labour force. In 2010, the agricultural sector provided 76.5% share in the country and contributed 24.1% of the GDP in Tanzania (URT, 2011). Moreover, authors like (Mwamfupe, 2015; Maganga *et al.*, 2007) have indicated that land problems are currently increasing as the population increases, thus demanding more land to sustain the increased need for both food and income.

In recent decades, farmer-herder conflicts in many parts of the sub-Saharan Africa have escalated into widespread violence, loss of property, massive displacement of people, and loss of lives. This situation has been caused by increasing pressure on resources and decreasing efficiency of



traditional conflict-management mechanisms (Thebaud and Batterbury, 2001). This has been associated with factors such as inadequate grazing reserve and stock routes, changes in the land tenure system, insufficient legislation pastoralism, economic factors and climate change have been identified as the long-term causes of the conflicts (Hussein *et al.*, 2000). It is argued that conflicts between farmers and herders originated from competition for resources caused by population growth, migration, and land degradation. Davidheiser and Luna (2008) also cited factors such as international development projects, demographic changes, and environmental degradation to have contributed to these conflicts.

Traditionally, land-use conflicts in Tanzania were experienced in the margins between pastoral lands and protected lands. In recent decades, however, farmer-herder conflicts have increased and spread southward and south eastwards of the country covering Kilosa, Mvomero, Kilombero districts of Morogoro region, Kiteto district in Manyara, Rufiji and Mkuranga districts in Coast, Kilwa district in Lindi, Mbarali district in Mbeya and parts of Kongwa district in Dodoma region. Other districts include Handeni and Kilindi in Tanga region. They are also occurring in parts of Rukwa and Tabora regions (Mwamfupe, 2015). According to HAKIARDHI (2009), most land-use conflicts in Tanzania are caused by decisions and acts of the state through its various agencies.

Land-use conflicts have some inherent characteristics that make them difficult to deal with. Ideally, they go together with conflict analysis about causes, effects, and preferences and thus supplement classical formal planning instruments. On the one hand, land-use decisions involve complex natural systems and processes, long-time scales, and uncertainty. On the other hand, land-use decisions are often felt on the regional and local levels, which encompass heterogeneous political, cultural, and societal systems. These are often influenced by supra-regional forces like globalization and broader societal trends, for example, demographic changes, and may substantially differ in their local institutional contexts (Mann and Jeanneaux, 2009).

A review of the literature suggests the persistence of land-use conflicts in Tanzania which are pastoralists' migrations related (Mwamfupe, 2015; Maganga *et al.*, 2007). Mwamfupe (2015), Makoye (2012) and Mahmoud (2011) have described the occurrence of land-use conflicts but little explanation has been availed on the escalation features which have laid the base for this study. This study, specifically, analysed the land use conflict actors and describes existence before and after the arrival of pastoralists, describes causes of land-use conflicts, describes land use conflict management and stakeholders involved in land-use conflicts mediations.

2.0 Theoretical Review

There are several studies under migration and population theories by different scholars. Most of the studies tend to concentrate on the economic factors of migration, rural-urban migration directions and international migration, but they do not touch on migration related consequences. The Social Conflict Theory as developed by Dahrendorf (1959)

and Aubert (1963) Simmel (1969) was used to guide the study. Conflict theorists assert that conflict is a necessary condition for change. It must be the cause of change. Thus, conflict is associated with all types of social change in one way or another.

According to Dahrendorf (1959) conflict is a struggle between social groups and also is a result of the clash of group interests. On the side of Simmel (1969), conflict is merely an intense form of social interaction and is a normal part of the social order. On the other hand, Aubert (1963) classified the types of interpersonal conflict that arise in the dyadic relationship between two individual groups, the sources of these conflicts and the ways of resolving these conflicts. The conflict model ideas from these scholars as postulated in the Social Conflict Theory were preferred because they all dialogue the existence of conflict in societies, causes of the conflicts, measures to resolving conflicts and also they classify the conflict actors. However, the social conflict model does not seem to consider the migration attribute and therefore this paper extends the theory by enabling a role migration is playing in resource-based conflicts.

3.0 Methodology

3.1 Description of the Study Area

The study was conducted in Rufiji District of the Coast Region. The district has potential for agricultural and livestock production (RCO, 2007). Formerly, in the district, out of the total countrywide population of livestock, only 0.44% of the cattle and 1.7% of the sheep and goat populations were kept in the study area before the massive settlement in 2007 (RCO, 2007). The study was conducted in five villages from four wards: Nyamwage (Mbwara ward), Muyuyu (Ikwiriri ward), Chumbi A (Chumbi ward), Muhoro and Kiwanga (Muhoro ward). The villages were selected because they host pastoralists since the beginning of the 2000s. They are among the 20 villages where the 2006 evicted pastoralists were directed to move in by the district authority. This enabled the study to share experiences over the existing situation.

3.2 Research Design and Data Collection Techniques

The study applied a cross-sectional design which enabled the collection of data once at a time. The k^{th} factor formula was applied to pick the sampled villages. A total of 20 villages that received pastoralists and agro-pastoralists from Mbeya, Iringa, Kilombero, Kisarawe and Kibaha since 2001 was subjected to the formula. To get the first village, the sampling fraction was used; other villages were selected based on the fourth village which the fraction obtained. A total of 200 respondents were involved where each village was represented by 40 respondents from 40 households represented by a member who is 30 years and above in 2013-2014 and has been in the village since or before 2000. These were selected on the basis that they have experienced the situation under investigation before and after the 2000s. Data collection methods involved a household survey, focus group discussion (FGDs), and Key Informant Interviews. Semi-structured questionnaires were administered as the basis for the discussion.

The FGDs were conducted in each village, and the group formation considered both homogeneity and heterogeneity composition of participants' socio-demographic characteristics. The focus group discussions were composed of ten to twelve members. Village leaders, land officers and village land committee members were also interviewed. The questions were specifically designed to address the existence of land-use conflicts in the study areas before and after the arrival of pastoralists to explain changing nature of land-use conflicts in the study areas. Village leaders and identified elders were interviewed for experience sharing on the land-use conflicts in the study areas. Secondary data were collected from various sources including research reports, newspaper reports, and village documentations.

3.3 Data Analysis

This paper is qualitative though there are some descriptive data that were collected to support the existing qualitative information. In this case, content analysis was the basic technique for data analysis. Pictures have also been used to demonstrate the real situation in the study area. Descriptive statistics using cross-tabulations, frequencies, and ranking were applied to analyse quantitative information.

4.0 Findings and Discussion

4.1 Land-use conflicts and conflicting parties

4.1.1 Natives versus (agro) pastoralists' conflicts

It was described by the majority (84%) of the respondents that originally in the study area natives in the study area were crop producers, while the remaining 16% reported that they were engaged into different income generation activities like fish and coconut vending. However, since the pastoralists' arrival, farms have been invaded and from time to time turned into grazing areas. Pastoralists look for the pasture and water for their livestock where it was described that the areas which these pastoralists were allocated to undertake their activities had no such services throughout the year. It was observed that pastoralists are not settling into allocated areas because the government has not provided them with important infrastructures such as dams (locally termed as "malambo"). As a result, pastoralists move into farmlands searching for water for their livestock.

This has led to the occurrence of conflicts between natives and pastoralists. PINGOs (2013) pointed out that the most distressing conflict emerged on 20th May 2012 at Ikwiriri town. The problem was also documented and some of the events are as shown in Plates 1, 2, and 3. The findings implicate that native communities and pastoralists are not living a peaceful life. Thebaud and Batterbury (2001) observed that one of the causes of the continuing land-use conflicts is the increasing pressure on land resources. The study by Owuor (2006) and Odipo (2000) which was done in Kenya also support these findings by revealing that in Kenya, the relationship between migrant farmers and pastoralists is one of the existing uncertainty.



Plate 1: Farmers demonstrating in Ikwiriri town in May 20th 2012 after the death of one native farmer who was killed by pastoralists (Source: PINGOs, 2013)



Plate 2: Native's Houses were gutted fire and burned during the natives and pastoralists conflicts in 20th May 2012 (Source: PINGOs, 2013)



Plate 3: The truck belonging to a pastoralist owner of a milk processing factory which was burnt on 20th May 2012 (Source: PINGOs, 2013)

At Ikwiriri ward, a 60 years old farmer, died in an assault by belligerent herdsmen after he denied them access to his paddy farm. This forced the villagers to chase off the alleged killers in revenge. Five people died and several were injured (Makoye, 2012). Similarly, one interviewee respondents at Muhoro village explained that:

“....In 2004 at Muhoro village pastoralists killed a native farmer who was guarding his farm against being grazed on by livestock which were grazing around the farms. When he stopped the livestock, pastoralists who were grazing them killed him and threw his body into the Indian Ocean...” (Interview, Muhoro village).

These kinds of conflicts are also happening in other parts having a similar situation in Africa. For example, Mamdani (2008) showed that in Darfur conflicts between pastoralists and agricultural communities escalated into a war which led to the death of about 300 000 people.

The conflict between the two parties is the most reported conflict in the study area. During the study it was described that the causes of these conflicts were; pastoralists' invasion into natives' crops and farms for grazing, pastoralists refusing to pay compensation for the loss of crops, and pastoralists not observing boundaries of the demarcated grazing lands. These findings provide useful insights into policy and decision-makers to understand where to focus while addressing land-use conflicts between sectors.

These findings are in line with those of Mann and Jeanneaux (2009) who described that the debate over rural land use often hinges on disagreements about societal values and preferences, resulting in conflicts that take place on the local, regional, national, and international levels, bearing enormous social costs. Tolossa and Baudouin (2004) described that one of the causes of conflicts between farmers and pastoralists

are the access to natural resources, in this case land resource is considered. Other studies have demonstrated that the growth of the livestock population has led to increased movement of large herds of livestock to areas which traditionally had few livestock, such as Mbeya, Iringa, Morogoro, Rukwa and Coast regions, creating serious land-use conflicts (URT, 1997, Sendalo, 2009).

4.1.2 Village leaders with pastoralists

During the time for data collection the respondents reported that there are conflicts between village leaders and pastoralists. These kinds of misunderstandings occur when some pastoralists do not abide by laws and by-laws especially when they are accused and obliged to pay compensation for the destroyed crops either in cash or in the material. They feel that they are oppressed and neglected. They do not trust village authorities hence leading to misunderstanding between them. The findings are in line with those of Fr'ohlich and Ide (2015) and HAKIARHI (2009) which indicated causes of land-use conflicts in different places which included: weaknesses of the authorities in managing land use distribution, the decline of land capacity in producing the required amount of products and populations increase resulting into the scarcity of productive lands. Thebaud and Batterbury (2001) also pointed out that the continuing land-use conflicts are caused by decreasing efficiency of conflict management mechanisms.

4.1.3 Village Authorities conflicts with villagers

On the otherhand it was moreover, described Other conflict actors include village authority versus villagers. The cause is the village leaders who are accused of being bribed when it comes to solving emerging allegations that pastoralists have destroyed native farms and their crops. It was described that village leaders tend to bias decisions in favour of pastoralists. Leaders are also blamed for not taking serious certain important matters especially land-related issues. Bribe forces leaders to be biased in favour of pastoralists when deciding on allegations brought before them. Benjaminsen and Ba (2009) studied the role of policy and corruption in explaining a farmer-herder conflict in the inland delta of the Niger River in Mali. The study findings and those by Benjaminsen and Ba (2009) and Benjaminsen *et al.* (2009) described the existence of corruption on matters related to farmer-herder conflicts in the study area and other areas with the same situation. Leaders are bribed by pastoralists who are termed as rich people than the natives.

4.1.4 Natives and pastoralists versus investors and conflicts

The study was also informed that there are conflicts between villagers and pastoralists versus investors. investors are coming into the areas looking for land for investing. The villagers welcome them and through village meetings where all village members agree on the size of land to be awarded following the procedures stipulated in the 1999 village land Act. But leaders are the ones who are responsible allocation process of the agreed land size and location. On the allocation day, investors tend to bribe leaders to get more land than what has been approved by village members. Village leaders do not adhere to the decisions of the village meetings on the relevant size of land to be allocated. They also extend to the point that they are also investing and



encroaching into areas allocated for pastoralists. This leads to conflicts between villagers and investors as well as pastoralists against investors.

PINGOs (2013) reported that in the district, Mkiu Poultry Farm Limited from Dar es Salaam was given land by the village authorities more than the size authorized by village members. It was allocated 1486 hectares for poultry keeping and agriculture in Ngorongo East and 540 hectares in Ngorongo West. This land was also allocated to pastoralists from Ihefu in 2006 (double allocation problem). This resulted in conflict between investors and pastoralists. The findings imply that there are policy weaknesses, government laxity, and corruption which leads to conflicts outbreaks between farmers and pastoralists. When respondents were asked to list investors and other institutions with land in the village they also listed RUBADA. Rufiji Basin Development Authority (RUBADA) was also blamed to take part in village and natives lands in the name of river basin protection. The study was informed that the RUBADA workers sometimes use force to take the villagers out of the so-called protected lands and this sometimes arises into misunderstanding among the parties.

4.1.5 Inter-villages and intra-villages conflicts

Findings show the existence of land-use conflicts between villagers against villagers (intra-village conflicts) and villages versus villages (inter-village conflicts). It was explained that these conflicts have been there before the arrival of pastoralists to date. The intra-village land-use conflicts are due to misunderstandings on the farmland boundaries. Inter-village conflicts are caused by the absence of surveyed village lands. During an interview, one key informant in Muyuyu village argued that:

“...there are land-use conflicts between one village and another because of misunderstanding on the villages land boundaries...Muyuyu village had land boundary conflicts with a neighbouring village...but having the land use committee with the help from the district authorities had resolved the problem and they are in harmonious situation....”(Interview, Muyuyu village).

It was also mentioned that the emergence of land conflicts between families resulted from the presence of pastoralists. One interviewee respondent in Kiwanga village pointed out that:

“...there are natives selling pieces of land to the pastoralists without an agreement with other family members...this is especially to those areas where owners have been outside the village for a long time when they come back and find their inherited land have been sold to the pastoralist by their relatives as a result family conflicts arise...” (Interview, Kiwanga village).

This calls upon responsible authorities to come up with possible solutions. This can be done through the use of the well-established village land use committee and ward land committees who will help to control the outbreak of such conflicts. These are supported by Mbonile and Mwamfupe (1997) who found that the immigrant pastoralists and agro-pastoralists in Usangu plains have sparked up land and water use conflicts between many user groups.

4.1.6 Pastoralists versus agro-pastoralists conflicts

It is very rare to find discussions on the conflicts involving pastoralists and agro-pastoralists in many parts and among several authors, the most reported resources (land) use conflicts are those between pastoralists against crop producers. It was articulated by one female FGD participant at Kiwanga village that:

“....it happened in 2013 in the village where the group of pastoralists’ cattle entered in one of the agro-pastoralist farms and destroy the crops in the farm...this prompted the fight and misunderstanding between the agro-pastoralist and the pastoralist...but it was settled where the alleged pastoralist paid for the loss to the agro-pastoralist...” (FGD, Kiwanga, village).

The statement reveals the existence of pastoralists versus agro-pastoralists conflicts in the study area. Both of these groups are newcomers in the district to look for places for livestock grazing. One group practices only livestock keeping (pastoralism) and the other undertakes livestock keeping and crop cultivation (agro-pastoralism). This misunderstanding is caused by pastoralists feeding their livestock on the farms belonging to both agro-pastoralists and those belonging to native farmers. It was further described that they sometimes fight for pasture lands as well as for water sources as they attempt to feed their livestock.

4.2 Conflict management and reduction techniques

The study found that there are established techniques as key steps to reducing the occurrence of conflicts in the study area. All respondents appreciated the techniques mentioned which imply that they are also recognised by community members and pastoralists. The ranking in Table 1 shows that the popular technique is the frequent meetings with pastoralists leaders (84.5%). Others include the application of the by-laws, evaluation of loss, reporting to the police and cases opened at the primary court, conflict mediation between conflicting actors, the involvement of pastoralists and village elders in conflict resolution, and evacuating pastoralists out of the village. In an FGD at Muhoro it was said that:

“...in solving conflicts between families after one member has sold the piece of land without informing other family members we use mediations between the parties....the relatives may decide to refund the buyer the amount paid to the

seller and the buyer agrees on the refunded money.....the relatives can refund the buyer after negotiations this is because in most cases the piece of land is sold in peanut amounting between Tanzanian shillings 300,000/= to 1,000,000/=.....” (FGD, Muhoro, village).

This quotation shows that there are indeed the locally applied conflict mediation techniques between the conflicting parties which work properly in the process.

Table 1: Conflict Management Techniques in Rufiji District (n=200)

S/No.	Land-use Management Techniques	Conflict	Per cent Responses	Ranking
1.	Villagers meeting with pastoralists		84.5%	1
2.	Application of village by-laws		71.5%	2
3.	Evacuating pastoralists out of the village		52.5%	7
4.	Conflict mediation between conflicting parties		56.5%	5
5.	Involvement of elders in conflict mediation		54.5%	6
6.	Police and open case to the primary court		58.5%	4
7.	Evaluation of loss caused by identified damages		61.5%	3

The use of the police and the primary court was criticised to have no transparency among stakeholders hence leading to un-ending corruption. One participant from Muyuyu raised that:

“...farmers’ complaints are always ignored by the police because pastoralists are bribing officers each time a complaint is raised....the government could have made proper land allocation before allowing pastoralists to enter the villages....” Farmers claimed that such conflicts have already been reported to relevant authorities to no avail. For example, one farmer said *“...Pastoralists are grazing in our fields without any compensation for the destroyed field produce...”* (Interview, Muyuyu, village).

Another respondent in the interview in Kiwanga village explained that:

“...pastoralists have been very reluctant to pay for the compensation of the loss caused by the livestock invasion into farms.....this is because they are sure that if the case is bought to the police they will bribe the policemen and the case is automatically resolved as a result

we farmers lose our rights....” (Interview, Kiwanga, village).

Mahmoud (2011) also noted that state-led peace-making initiatives often fail due to corruption, lack of legitimacy, low resources and ultimately institutional weaknesses.

The technique of evaluating the loss caused was done in a manner that pastoralists are required to pay for the loss identified. The evaluation is normally done by both (native farmer and alleged pastoralists) and the estimated costs are paid. The payments are in terms of cash or in-kind based on the estimated number of sacks expected to be harvested on a farm. Dawwas (2014) appreciated the role of various techniques in land-use conflicts including the multiple land use planning as well as the use of Geographical Information Systems (GIS). But when it happens that pastoralists fail or deny paying for the loss hence causes chaos to farmers. This was raised during the focus group discussions where they argued that:

“...when we find cattle into the farms or find them without anyone taking care of them we take and detain them (Plate 4)...owners are fined 50 000/=Tsh (Fifty thousand)for such an offence ...then in detention villagers security (locally known as “walinzi jamii”) take care of the cattle if the detained cattle spend a night they are charged 5000/=Tsh. (five thousand) per cattle for every night spent...” (FGD, Kiwanga, village).



Plate 4: Groups of Cattle Detained for grazing in the natives’ farms

4.3 Stakeholders involved in conflict resolutions

The study undertook an analysis of the stakeholders involved in conflict reduction strategies. This analysed the sustainability of the measures taken to address land-use conflicts. Respondents were required to identify the stakeholders and their roles. Patel *et al.* (2006) argued that stakeholders do not necessarily participate all at once at a time, but community participation in resource use planning has been undertaken in a variety of settings and has been successful in reducing resource use conflicts.

It was described that stakeholders’ involvement depends on the magnitude, level, and stage of the conflicts. The



stakeholders include among others; pastoralists leaders, ward officers, police officers, district officers, farmers, village leaders, elders (pastoralists and farmers), and regional officers. In the FGD at Muyuyu village participants explained that: “....district officers attend meetings when there are grievances but it also happened one day the regional commissioner came in the village and resolved the issue...but there are problems of some of the pastoralists not attending meetings when they are called...” (FGD, Muyuyu, village). This is in line with Mann and Jeanneaux (2009) who described the importance of involving leaders, conflict victims and possible source personnel in conflict resolution. Table 5 shows the roles and functions of every individual or group of stakeholders. The study realised that all the mentioned stakeholders have valuable and very important roles over the reduction of land-use conflicts in the district.

Table 2: Roles and Functions of Land Use Conflict Negotiation Stakeholders

Stakeholders	Roles and functions in land use conflict mediation
Pastoralists	• Participating in village meetings • Participating in mediation meetings
Farmers	• Participating in village meetings • Participating in mediation meetings
Pastoralists leaders	• Participating in mediation meetings
Village leaders	• Enforcing laws and by-laws • Call village meetings • Participating in village meetings • Call for conflict mediations • Enforcing laws and by-laws
Pastoralists and village elders	• Participating in mediation meetings
Police officers	• Enforcing laws and by-laws • Taking matters to the court • Taking strikes at ease
District officers	• Translating the land use plan map • Take part where village-level mediation has not been resolved • Enforcing laws and by-laws
Regional officers	• Take part where district-level mediation has not been resolved
The primary court	• Translating laws and by-laws and ensuring equal rights

4.4 Theoretical Contributions

The study was guided by the social conflict theory. The central concerns of conflict theory are the unequal distribution of scarce resources and power. The findings of the study implicate that the theories and ideas on conflicts were lacking issues concerning people's migration aspect that have also impacts in accelerating social conflicts among societies as far as scarce potential resources (land) are

concerned. Findings have also shown the existing existence of various actors (classified) in social conflicts with different interests of their existence which were also lacking in the theory. Finally, the findings have come up with social conflict mediation techniques as described by Dahrendorf (1959), Simmel (1969), and Aubert (1963).

5.0 Conclusion and Recommendations

Findings show that land-use conflicts were common before the arrival of pastoralists. However, during this study, an increasing number and type of actors involved in conflicts were observed. The evidence on land-use conflicts in Rufiji district shows that indeed there existed land-use conflicts even before the arrival of pastoralists. To date, they are still prevailing caused and steered by the arrival of pastoralists. These conflicts involve six different types namely: natives (villagers) against pastoralists, village authorities versus pastoralists, village authority versus villagers, villagers against villagers themselves, pastoralists versus agro-pastoralists, and villagers and pastoralists.

Most causes of land-use conflicts are pastoralists' invasion and livestock grazing into crop farms, pastoralists not observing boundaries of the grazing land demarcated for them, village leaders favouring pastoralists in decisions and ignoring natives' rights, government authorities' ignoring village agreements, and pastoralists refusing to pay compensation to the farmers' destroyed crop.

The study identified the techniques in place to reduce conflicts occurrences like; frequent meetings with pastoralists' leaders, application of the village by-laws, and evaluation of loss caused by identified damages, reporting to the police and opening cases at the primary court, conflict resolution, and mediation between conflicting parties, the involvement of village and pastoralists elders in conflict reconciliation and evacuating pastoralists from the village.

Ultimately, the study identified the stakeholders involved in the strategies of land use conflict management and the role of each stakeholder. They include pastoralists leaders, ward officers, police, district officers, farmers, village officers, elders, regional officers, and the primary court. Their general functions include: preparing for village meetings, calling for mediation meetings, participating in village meetings, participating in mediation meetings, enforcing and translating laws and by-laws, taking cases to the court, and translating land use plan maps.

It is recommended that the relevant and responsible authorities should make sure that the existing land-use conflicts are settled by establishing the appropriate policies and resolution techniques. This can be done by ensuring the involvement of all land use stakeholders. It is also recommended that the decision-makers incorporate a diversity of actors' interests to handle conflict to improve land-use planning and management decisions.

It is further recommended that the responsible authorities should make sure that pastoralists are provided with the necessary infrastructure and their needs to reduce unnecessary movements which make them invade the prohibited areas. Finally, the study recommends that the



arrival of pastoralists should not be taken destructively but there should be efforts to derive optimistic aspects to the host communities. Leaders should observe and respect village agreements, regulations, and procedures of village land allocations as stipulated in the village land act of 1999.

References

- Aubert, V. (1963). Competition and dissensus: Two types of conflict resolution. *Journal of Conflict Resolution*.7:26-42.
- Bashir, M.A.A (2012). The impact of land use change on livelihoods of rural communities: A case study in Edd Al-Fursan Locality, South Darfur State, Sudan. Dissertation for Award of Doctoral Degree at Technical University of Dresden, Dresden, Germany. 162pp.
- Benjaminsen, T.A. and Ba, B. (2009). Farmer–Herder conflicts, pastoral marginalization and corruption: A case study from the Inland Niger Delta of Mali. *The Geographical Journal*. 175(1): 7–81.
- Benjaminsen, T.A., Maganga, F.P and Abdallah, J.M. (2009). The Kilosa killing: political ecology of a farmer-herder conflicts in Tanzania. *Development and Change*, 424-445.
- Dahrendorf, R. (1959). *Class and Class Conflicts in Industrial Society*. Stanford University; 333pp
- Davidheiser, M. and Luna, A.M. (2008). From complementarity to conflict: A historical analysis of farmer-herder relations in West Africa. *African Journal on Conflict Resolution* 8 (1):77-104
- Dawwas, E. (2014). The evolution of GIS as a land use planning conflict resolution tool. A chronological approach. *American Journal Geographical Information Systems*, 3(1): 38-44.
- Fröhlich, C. and Ide, T. (2015). Socio-environmental cooperation and conflicts? A discursive understanding and its application to the case of Israel/Palestine. *Journal Earth System Dynamics Discussions*. 6:1001-1031
- HAKIARDHI (2009). The Changing Terrain of Land Use Conflicts in Tanzania and the Future of Small Producer. Land Right Research and Resource Institute. In *Commonwealth Association of Surveying and Land Economy CASLE* on 29 June 2009, Dar es Salaam, Tanzania. 11pp.
- Hussein, K., Sumberg, J. and Seddon, D. (2000). Increasing violent conflict between herders and farmers in Africa: claims and evidence. *Development policy review* 17:397-418
- Maganga, F.P., Odgaard, R. and Sjaastad, E. (2007). Contested Identities and Resource Conflicts in Morogoro Region, Tanzania: Who is Indigenous, in *Citizenship, Identity and Conflicts over Land and Water in Contemporary Africa*, edited by Derman, B., Odgaard, R. and Sjaastad, E. pp.202–214. London: James Currey.
- Mahmoud, H.A. (2011). Conflict and constraints to peace among pastoralists in Northern Kenya. In: Baregu, Mwesiga ed. *Understanding obstacles to peace: Actors, interests, and strategies in Africa's Great Lakes region*, International Development Research Centre. Kampala, Fountain Publishers.146–168.
- Makoye, K., (2012). *Drought Drives Tanzania Herders into Conflicts with Farmers*. Thomson Reuters Foundation. In www.trust.org. Site visited on 14th February 2014.
- Mamdani, M. (2008), *Saviors and Survivors. Darfur, Politics and the War on Terror*. New York Pantheon Books
- Mann, C., and Absher, J. D. (2008). Recreation conflict potential and management implications in the northern/central Black Forest Nature Park. *Journal of Environmental Planning and Management*, 51(3): 363–380.
- Mann, C. and Jeanneaux, P. (2009). Two approaches for understanding land-use conflict to improve rural planning and management. *Journal of Rural and Community Development* 4(1): 118-141
- Mattee A.Z and Shem M. (2006). Ambivalence and Contradiction: A Review of Policy Environment in Tanzania in Relation to Pastoralism. International Institute for Environment and Development, London. Issue Paper No. 140.pp 48
- Mbonile, M.J and Mwamfupe D.G (1997). In-migrants and their impact on land management: A case of Usangu Plains, Tanzania. *Tanzania Journal of Population Studies and Development*, 4 (1): 37-53
- Meur, P.L, Hochet, P., Shem, M., and Touré, O. (2006). Conflict over Access to Land & Water Resources within Sub-Saharan Dry Lands: Underlying factors, conflict dynamics and settlement processes GRET-FAO LEAD Final Report.
- Mwamfupe, D. (2015). Persistence of farmer-herder conflicts in Tanzania. *International Journal of Scientific and Research Publications* 5 (2):1-8
- Odgaard, R. (2005). Land rights and land conflicts in Africa: The Tanzania case. Copenhagen, Danish Institute for International Studies.
- Odipo G. (2000). “Nomadism: A Migration Mechanism for Environment and Economic Sustainability: The Pokot of Kenya.” In: Third African Population Conference of the Union for African Population Studies.
- Owuor, O.S. (2006). Bridging the urban-rural divide: multi-spatial livelihoods in Nakuru town, Kenya. Nairobi
- Patel, M., Kok, K., and Rothman, D. S. (2006). Participatory scenario construction in land use analysis: An insight into the experiences created by stakeholder involvement in the Northern Mediterranean. *Land Use Policy*, 24, 546–561.
- PINGOs (2013). *Annual Report 2012-2013. Pastoralists Indigenous Non-governmental Organizations' Forum (PINGOs Forum)*. November 2012-October 2013.



- RCO (2007). Tanzania Coast Region Socio - Economic Profile.
In
[<http://www.tanzania.go.tz/regions/COAST.pdf>]
f] site visited on 17/01/2014.
- Sendalo, D.S.C. (2009). Review of Land Tenure Policy Implications on Pastoralism in Tanzania. Department of Livestock Research, Training and Extension. Ministry of Livestock Development and Fisheries. 29pp.
- Simmel, G. (1969). Sociology of the Senses: Visual Interaction. In: *Introduction to the Science of Sociology*. (Edited by Park, R.E and Burges, E.W). Chicago University Press, Chicago. pp. 356-361.
- Tolossa, D. and Baudouin, A. (2004). Access to natural resources and conflicts between farmers and agro-pastoralists in Borkena Wetland, north-eastern Ethiopia. *Norwegian Journal of Geography* 97-112.
- Thebaud, B., and Batterbury, S. (2001) Sahel pastoralists: opportunism, struggle, conflict and negotiation. A case study from Eastern Niger. *Global Environmental Change* 11:69 – 78
- URT (1997). *National Land Policy*, United Republic of Tanzania. 49pp
- URT (2011). *Poverty and Human Development Report 2011*. National Strategy for Growth and Reduction of Poverty. Research and Analysis Working Group. MKUKUTA Monitoring System. 157pp