The Linkage between Resource Users Discourse Variations and Land Conflicts Proliferation in Lake Rukwa Basin, Tanzania

Elieza Yusuf Musana[15] and Susan Rugano Gwalema[16]

Abstract

Conflicts between migrant agro-pastoralists, crop cultivators and nature conservators are invariably linked with resource scarcity. In the light of the Malthusian and Neo-Malthusian tradition, an increase in the human population and livestock in a locality is a sufficient condition for the proliferation of resource use conflicts. But this linkage is not the only determinant of land-use conflicts. This study uses the political ecology framework to explore conflicts determining factors beyond population growth and resource scarcity linkages. To ascertain this point, we conducted a descriptive study in the purposefully selected villages of Mtenga, Totowe, Mbuyuni and Ivuna in the Lake Rukwa basin. Data were gathered from the sample of 399 respondents through the use of semi-structured interview complemented in part by documentary sources. Data analysis was done using SPSS version 22 and Microsoft EXCEL computer programs to establish patterns of the respondents' opinions on the problem investigated. Results indicated that the persistence of the land-use conflicts was a function of differential resource use discourses held by resource users in the locality. Such variations were reflected in the differences over the land resources demands, perceptions, values, and power imbalances. The study concluded by calling for the need to establish a middle ground based on negotiation rather than forceful means currently used to manage resources in the basin.

Keywords: Rukwa basin, land conflicts, discourses, actors, corruption, agro-pastoralists

1.0 INTRODUCTION

Across the world, communities have perceptions and practices over land resources which differ significantly (Escobar, 2006:9). They thus construct and utilize land in different ways. Such constructs, signify differential resources use discourses. These differences can be well articulated through the use of the political ecology framework which addresses power relations in natural resource management. Political ecological studies concerning environmental discourses often pay attention to the existing power in explaining environmental problems. One area of such focus is the assumptions about environmental change that

[15] Department of Geography, Open University of Tanzania
[16] Department of Geography, Open University of Tanzania

inform many environmental discourses (Breivik, 2007). It is articulated that, there is a relationship between discourses and political actions, and/or marginalization of local land managers (Robbins 2004: 147, Adams 2001: 270). Where there are diverging interests in natural resource management, discourse may hold power in shaping political action.

2.0 LITERATURE REVIEW

According to Dryzeck and Berejikian (1993), discourse is a shared way of thinking or speaking of an issue. The authors go further to argue that, it is through it that ideology is promoted. If people get so used to thinking in a certain way, they have trouble imagining the world differently. As a consequence, they might unknowingly treat their group interests as identical to the interests of everyone.

Epistemology is central when analysing an environmental discourse because the way reality is perceived and conceptualized is important in informing how environmental problems are interpreted. It is also important in influencing political decisions and interventions on how environmental resources should be managed (Breivik, 2007). Land user's differential discourses are reflected in the differential interests, values, perceptions, and needs (Kideghesho, 2006). These differences if not well managed may lead to conflicting discourses which in turn lead to the prevalence of land-use conflicts. In this study, we have shown how perceptual differentials in terms of land resource use among the state, indigenous population and migrant agro-pastoralists frequently result in the proliferation of resource use conflicts in the Lake Rukwa Basin.

3.0 MATERIALS AND METHODS

3.1 Study Area

The study was carried out in the Lake Rukwa Basin which is situated in south-western Tanzania. Rukwa Basin covers an area of 88,000 km^2 (Mbungu, 2015). Figure 3.1 situates Lake Rukwa Basin in Tanzania.

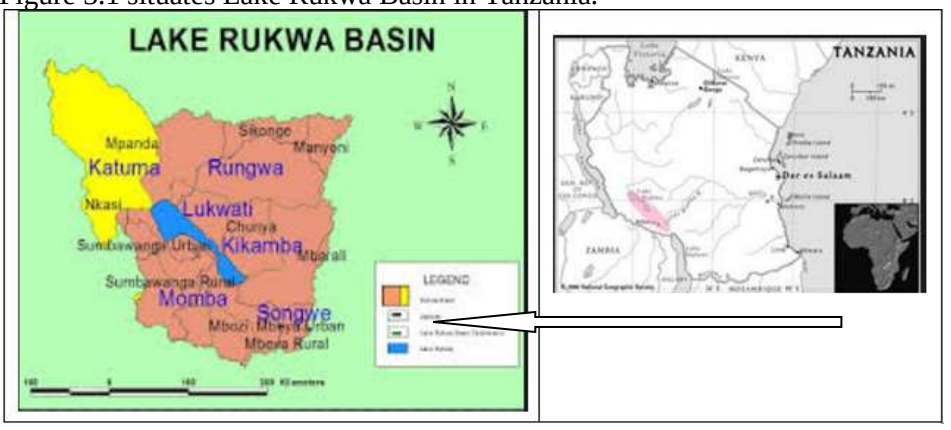

Figure 3.1: Location of Lake Rukwa Basin in Tanzania
Source: Field Data, 2018.

Rukwa basin is part of the central Zambezi miombo woodlands ecoregion characterized by trees of the *Caesalpininaceae*, *Mimosaceae* and *Papilionaceae* families (Campbell, 1996). Its elevation varies from 1,000 and 1,100 m in the northern section of the basin to 800 and 900 m on the shores of Lake Rukwa (WREM International 2013). Its annual rainfall ranges between 1,250 mm in the north and 800 mm on the leeward side of the Lyambalyamfipa escarpment. The ecoregion accommodates five different types of protected areas which include the 4300 km^2Katavi National Park, the 4,194 km^2 Rukwa Game Reserve (GR) to the southern part of the park, whereas the Lwafi GR lies to the west. Further south and the northeast are the Msanginia Forest Reserve (FR) and Mlele Game Controlled Area (GCA). Rukwa basin is covered by tropical wooded grassland and Lake Rukwa largely controls its ecology.

Together with the diverse wildlife population, the Rukwa basin is home to different communities that are scattered in different locations. Since 1970s, the Rukwa basin population has been growing steadily as a result of the constant in-migration of the Sukuma communities from Mwanza, Shinyanga, Geita and Tabora (Borgerhoff Mulder *et al.*2007). The population grew from 2.2 million in 2002 to around 2.5 million in 2012. With the current population growth rate, it is anticipated that by 2025 the population size will double (Lake Rukwa Basin Board, 2014).

Lake Rukwa basin was chosen to host this study because of the distinct communities which share the basin resources and the current government conservation interests taking place therein. Communities living in this area display different resource use discourses that are linked to the on-going conflicts. Researchers were, therefore, compelled to examine what constitutes resource use conflicts in the locality.

3.2 Data Collection

In pursuing the extent to which land-use conflicts are a product of the conflicting discourses; the study adopted the mixed approach of qualitative cum quantitative. Data were collected through interviews complemented in part with documentary and field observation. The Target population constituted all heads of households of both migrant agro-pastoralists and indigenous crop cultivators. Supplementary information was collected from key informants that comprised local government officials, wildlife management officers and ecologists who worked and resided in the study area. Intensive face to face interviews using an interview schedule were administered to 399 respondents who formed the study sample out of a sampling frame of 206,213 households. The study sample size was determined using the formula for the finite population recommended by Yamane (1967) and Glenn (1992). The proportions of the sample size from each cluster based on the available number of households, 199 respondents were

migrant agro-pastoralists and 200 respondents were crop cultivators. Similarly, 30 Key informants were interviewed using a specially prepared interview guide. Primary data were collected using semi-structured interview schedules, unstructured interviews, discussion guides and field observation. The major emphasis was on the apprehension of the resources found in Lake Rukwa basin and the extent to which variation in the perceived values of the given resources contributed to the persistence of conflicts over its use in the area. Semi-structured interview was also used to collect respondent's migration history, livelihoods strategies and the perception of the relationship between corruption prevalence and conflicts persistence. Secondary data were gathered through documentary reviews in order to record the trends of resource use conflicts in the locality under study.

Data analysis was conducted on both qualitative and quantitative levels to conform to the mixed research methods used by the study. The analysis and interpretation of qualitative data took place concurrently with data collection during the field and continued thereafter. Descriptive data were then coded and analysed using a computer-based statistical package for social scientists (SPSS) version 22 to establish patterns and relationships among emerging concepts and themes.

4.0 RESULTS AND DISCUSSION

4.1 A Brief History of Human Habitation in Lake Rukwa Basin

Lake Rukwa Basin is one of the oldest settled areas in the world. Over 60,000 years ago an advanced Stone Age culture flourished in the area. Early settlers were hunters who were the descendants of the Hadza people of central Tanzania (Yanda, 2007). The Pimbwe community, who occupy the northern part of Lake Rukwa flood plain, migrated into the area between 400 and 500 years ago (Seel *et al.,* 2015). Fipa crop cultivators migrated into the area from northern Zambia and eastern Democratic Republic of Congo between 300 and 500 years ago (National Bureau of Statistics, 2004:4). Likewise, the Nyamwanga communities migrated to the area at different times from Zambia, southern Congo, and Malawi (Itani, 2007). Good climatic conditions and abundance of hunting games were the major pulling factors that attracted migrants to the area. The Sukuma are the latecomers to the area. Their massive in-migration dates only from the 1970s. The Sukuma arrival in the Rukwa basin is part of the larger pastoralist migration to the south from the north (Yanda, 2007). Before the 1970s, there were no cattle in the locality due to the flourishment of the bovine trypanosomiasis which is transmitted by tsetse flies that have been rampant in the locality for decades (Malele, *et al*, 2013). Different from other early inhabitants, the Sukuma combines crop cultivation and livestock keeping. The mode of livelihood they pursue is new to the locality and it is to a larger extent a major source of resource use conflicts with other resource users.

4.2 Categories of Resource use Discourses

In the sampled villages of Rukwa basin, it was noted that resources on which conflicts commenced comprised wetlands areas, Lwafi game reserve, Katavi National Park, fallow lands, planted and harvested farms. The spatial distribution of these resources determined the nature of the observed contestation. It also defined the type of resources users involved in the contestation. Major actors of resource use conflicts were indigenous crop cultivators, migrant agro-pastoralists, local state officers and natural resources conservators. Central to resource use conflicts was the question of the actor's knowledge and perceptions. Variations in the actor's knowledge on the available resource base represented the variations in the resource use discourses.

Three categories of resource use discourses comprised the state discourse which was reflected in the resource use laws and policies used to govern the use of natural resources. Alongside the state discourse were the lesser counter-discourses held by agro-pastoralists and indigenous crop cultivators. Conflicting views bred resource use conflicts that are discussed below.

4.2.1 Actors Differential Needs

In the Lake Rukwa basin, differential needs among resource users were reflected in the actor's differential demands which were noted to vary significantly. To understand how such variations determined land conflicts, analysis was done on the differences in terms of farming and grazing lands, demands for wetlands and wildlands resources and the utilization of planted farms and farm remains. It was observed that, the preference for large household sizes instigated the possession of large herds thereby the demand for more farming and grazing lands among the agro-pastoralists was greater than that of the crop cultivators. Consequently, agro-pastoralists demanded and commanded a larger farm size in comparison to crop cultivators as given in Figure 4.1.

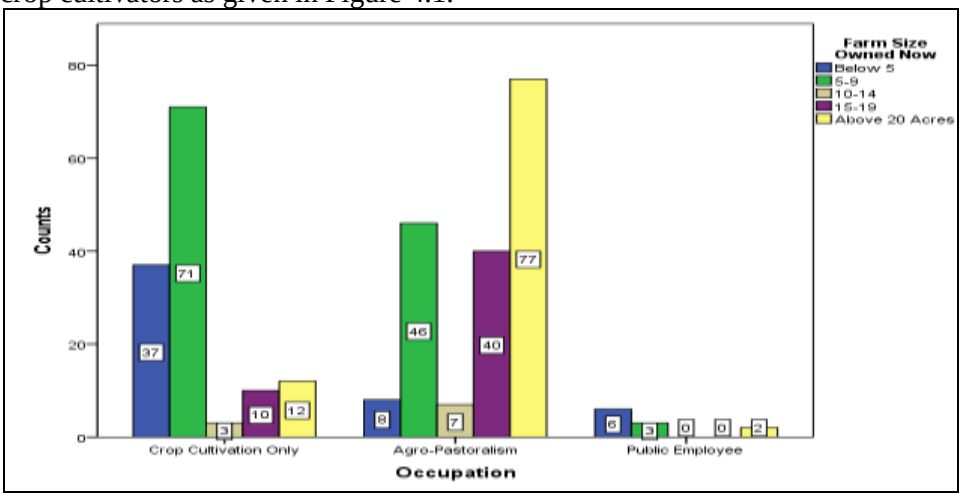

Figure 4.1: Plot size Distribution Across Selected Ethnic Groups
Source: Field Data, 2018

The prospects for a household to possess large farm size (Figure 2) were available for all dwellers but the majority with farm size above 20 acres was the migrant agro-pastoralists. Land demand among agro-pastoralists was greater than that of the indigenous crop cultivators because of having large households (up to 45 members), and herd size above 100. The two factors obliged them to demand large tracts of land. To be resilient to reality, agro-pastoralists utilized different strategies for land access which inevitably triggered land-use conflicts between them and other resource users. Dominant strategies adopted included: the adoption of dispersed neighbourhoods in contrast to the nucleated settlements used by the indigenous crop cultivators, deliberate feeding livestock on-farm remains and/or planted farms, grazing in fallow lands and deliberate feeding livestock in the state protected areas.

Although indigenous crop cultivators and migrant agro-pastoralists resided in the same village, their residences differed significantly. While the agro-pastoralists dwellings were in the form of dispersed neighbourhoods, dwellings for the indigenous crop cultivators were modern, compacted and nucleated normally clustered around the village centres. Adoption of the dispersed form of settlement as a strategy enabled the agro-pastoralists to gain more land for grazing and cultivation along the village outskirts. It was observed that the space utilized by the Sukuma household was larger compared to the one used by an indigenous crop cultivator. The distance between one agro-pastoralist dwelling and another calculated through transect walk ranged between one and two kilometres apart but for the indigenous crop cultivators, the distance was hardly five meters. Agro-pastoralists adopted a dispersed form of settlement to access unlimited land for farming and grazing livestock. As earlier observed by Madulu (1999b), agro-pastoralists land use is extensive when compared to indigenous crop cultivation systems.

The differential settlement patterns noted in the study area were justified by the differential land demands endorsed by these resource users. Dispersed settlement patterns and farm extensification adopted by the migrant agro-pastoralists triggered many land-use conflicts among different resource users. Farm extensification halted indigenous crop cultivator's farm expansion and the traditional shifting cultivation which was so rampant and believed to be useful for farm improvements among indigenous crop cultivators.

Conflicting land demands between the two livelihoods systems triggered land conflicts because farm expansion by crop cultivators had to commence on the land which was now used for grazing livestock and/or as routes to watering points. Such action resulted in trespass problems reported by 49.2 percent of the respondents. The problem of trespass observed in sampled villages of the Lake

Rukwa basin corroborate with those documented in Kilosa Morogoro (Kisoza, 2009; Mwamfupe, 2015) and Northern Ivory Coast (Gausset, 2005); where uncompensated crop damage was the proximate determinant of resource use conflicts. For the case of the Rukwa basin, differential needs in land resources between the two livelihood systems could explain why conflicts continue to persist. Indeed, that was the manifestation of the conflicting discourses between the two production systems.

4.2.2 Actor's Differential Values over resource use

In the Lake Rukwa basin, it was learned that discourse variations among resource users could be established along the differences in which resource users valued the given resources. In the sample villages, differentials in the perceived values of resources implied the ways resource users utilized them. These were thus the central cause of resource use conflicts. Value differentiation was analysed through the examination of how respondents defined the maximum number of the herd size required given the available resources, perceived utilization of crop remains, fallow lands, and the surrounding wildland resources. Regarding livestock carrying capacity of the land, conflicting discourses were observed on the question of quality and quantity of livestock required to be accommodated by the locality (Figure 4.2).

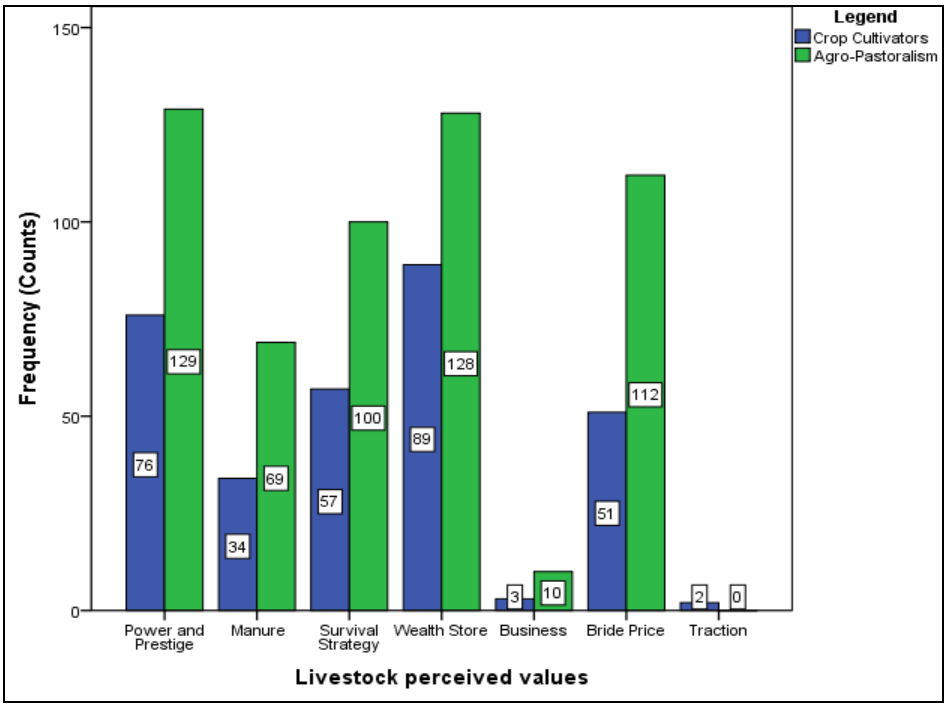

Figure 4.2: Respondents Perceived Values of Livestock
Source: Field Data, 2018.

From the analysis of the information presented in Figure 4.2, one learns that, there was a marked difference in the values associated with livestock. High values were evident among agro-pastoralists than among crop cultivators because of the differences in the livestock possessions. Factors such as power and prestige, wealth store and bride price took the lead. When asked to justify the reasons behind such incline, migrant agro-pastoralists claimed that livestock was everything in their lives. Additionally, possession of large households among the Sukuma migrants and the desire for status motivated them to possess large herds beyond the government set limit. Apart from increasing household wealth, livestock were as well reported to be useful in securing female family labour through bride price.

These attributes were however less important among indigenous crop cultivators. Close examination of the data indicated that only half of the indigenous crop cultivator's respondents had livestock. Similarly, those in possession of livestock (45 percent) had the herd size which was below 5. It was further noted that crop cultivators with herd size above 70 comprised only 9.1 percent. The differential perceived values over the herd sizes were thus important in triggering land-use conflicts. For the indigenous crop cultivators, the size of the herd possessed could be easily managed on the available village rangelands and agreed with the local state ceiling (70 herds in total).

The land use arrangement that existed raised varied challenges among agro-pastoralists as the set-aside rangelands were not enough to accommodate the available herds. At the same time, migrant agro-pastoralists were reluctant to minimize their herd size. Additional land for herding and farming had to be secured elsewhere especially in protected areas and in crop cultivators fallow lands and harvested farms. Given the differential land use objectives held by the landowners, the extension of grazing lands to this locality consequently triggered resource use conflicts noted in all sampled villages.

4.2.3 Differential Livestock Herding Styles

Another important area in which differential resource use discourse was registered was on the question of livestock herding styles. The government requires all pastoralists to settle down and modernize their livestock herding systems (see URT, 2005; URT, 2006). In the eye of the state, mobile herding has many repercussions as it causes unnecessary land-use conflicts between pastoralists and crop cultivators and spreading livestock diseases. The government land-use discourse is vividly expressed in the 1995 land use policy and its subsequent 1999 village land use Acts. Since independence, the government stand has been on the modernizing livestock sector. Migrant agro-pastoralists discourse, on the other hand, focusses on quantity. Instead of confining livestock in state-designated rangeland areas, their herds were grazed everywhere including in the state restricted areas (Katavi National Park, Lwafi

Game Reserve, and Lake Rukwa wetland areas). They also forcefully grazed on crop cultivators harvested farms, fallow lands and even on young growing crops. Entry to the protected areas was made possible through bribing local officials in the conservation areas, illegal entry into these resources during the night and/or during the rainy seasons (Musana, 2019).

The free grazing styles employed by migrant agro-pastoralists were part of their culture. Although complimentary herding and farming were practiced by the indigenous crop cultivators, the mode of land use was different from that of the migrant agro-pastoralists. As per state discourse; each livestock owner was required to manage his or her herd on private farm. In case one had additional livestock, it was stipulated that, such additions would be grazed on the village designated grazing land. Such land-use arrangement was impossible among agro-pastoralists because of the possession of large herds beyond private land carrying capacity. Consequently, contravention of the village land use plan was common. The inability of the wealthy agro-pastoralists to comply with the state village land-use rules and regulations were thus viewed by the state actors and crop cultivators as archaic way of life which ought to be changed. The differential point of view observed among these land resource users was part of the conflicting discourses experienced in the locality which frequently bred land-use conflicts. The migrant agro-pastoralists rigidity to change ought to be explained in the light of conflicting discourses other than ignorance as frequently described by other stakeholders (Gausett, 2005; Shettima and Tar, 2008).

Similarly, conflicting discourses were evidenced by differential herding and grazing style in the sense that, traditionally, migrant agro-pastoralists grazed livestock close to homes. This practice emanated from a well-developed knowledge of ticks and tsetse fly control (Meeterns, e al, 1995). Keeping livestock close to home was also a response to frequent livestock attacks from hyenas and lions (Coppolilo, 2000). Furthermore, the practice assured them the supply of animal traction services, farmyard manure (where applicable), milk and meat. All these requirements necessitated them to adopt the practice of keeping livestock close to home. Virtually, 72 percent of all respondents indicated that grazing livestock close to home was the preferred mode of livestock keeping.

Although it is the government intent to settle pastoralists, the mode of settlement proposed by the government is the one in which pastoralists are required to acquire land titles and graze livestock on a self-managed land in a modern way. In line with this, it was noted that migrant agro-pastoralists complied with this condition in the sense that they were settled community. The difference was noted in the mode of livestock keeping. Instead of keeping few herds on self-managed land as per the 1999 land Act provision, they settled with unmanageable large herds beyond the village land carrying capacity. Similarly,

livestock grazing did not commence on the titled land because such titles were not there. Furthermore, sedentarisation was an enforced condition resulting from land resources scarcity due to farming encroachment on rangeland caused by population growth, climate change, and the increased in the land size subjected to conservation by the state. It was thus the maintenance of traditional livelihood strategies status quo in the face of the dwindling resources which frequently subjected them to land-use clashes with other resource users. The behaviour of clinging to the old traditions of livestock management in the face of the changing nature of resource use arrangements was thus an important indicator of conflicting land use discourses between them and other resource users.

The agro-pastoralists complementary herding which was not endorsed by the indigenous population was observed to be another source of resources use conflicts. As such, the indigenous crop cultivators and the local state frequently associated land degradation experienced in the study areas with complementary herding and farming styles used by the migrant agro-pastoralists. To them, livestock trampling on the cultivated farms resulted in the development of hardpan soils, problems of weeds and the spread of ticks. Also, animal trampling was in part connected to the loosening of the fertile topsoil that was later blown by winds. While indigenous crop cultivators regarded grazing livestock as deteriorating their farm status, for agro-pastoralists this was not an issue. What mattered was to improve their livestock calving rate and milk production.

Similarly, agro-pastoralists preferred mobility of livestock as a means of utilizing sustainably patchy resources and as a means for avoiding unnecessary conflicts with crop cultivators. In contrast, the government regarded this as contributing to the spread of animal diseases. Resource use conflicts were frequently experienced when the state tried to control the behaviour of mobile agro-pastoralists who declined from obeying the order. In the contexts of this paper, such discourse incompatibility in the course of land use was important in defining persistent resource use conflicts.

4.2.4 Perceived Difference on the Agricultural Calendar

During the field study, this study noted the existence of the local agricultural calendar. This calendar was used to monitor the movements of livestock in and out of the village across farming seasons. In each village, there was a local calendar that had a timeframe showing when livestock should be grazed in and outside the village. In this regard, land use conflict was the function of the perceptual differences in the duration allocated for removing crops in the farm and the timing of returning livestock to the village. It was learned that the time frame for returning livestock to the village was highly distorted by the changing nature of the seasons accompanied by climate change. Generally, the official time for returning herds to villages was between May and September and the time for removing them was between October and November each year.

Figure 4.3: Traditional Methods of On-Farm Drop Drying Strategies. The Practice of Leaving Crops to Dry Slowly on the Farm Is an Important Source of Land Conflicts Because Crop Drying Practices Frequently Deviates from the Expected Time of Returning Livestock to the Village to Be Grazed on the Farm Remains
Source: Field Data, 2018.

The calendar distortion was frequently caused by the rainfall delay in most years which consequently caused agro-pastoralists returning livestock to the villages in time when crop cultivators had not yet removed their farm produce from their farms (see Figure 4.3). Conflicts followed when cattle fed on the ripen farm crops which were yet to be removed from the farm. Similarly, the crop cultivator's practice of leaving crops to dry slowly in their stalls on the farm was another source of conflicts as was perceived by the agro-pastoralists as an act of bleaching the set calendar (Figure 4.3).

Close examination of the matter indicated that, some violent conflicts were intentionally created. It was reported by some key informants that some agro-pastoralists intentionally grazed on crop cultivator's farm crops to improve livestock productivity. Such intentional acts triggered land conflicts and bloodshed as no crop cultivators were prepared to see his toiling ending in someone's livestock belly. Such resource use conflicts owe its foundation in the wealthy agro-pastoralists inward motives of valuing herds other than the needs of other resource users. Deliberate feeding on crop cultivator's farm as observed in the Rukwa basin is replicant to many other areas where crop cultivators co-exist with livestock keepers. Cases of similar nature have been documented in West Africa by Mortiz (2006b) where the behaviour of feeding livestock on the Tupuri crop cultivator's farms in north Camerounian frequently sparkled land-use clashes with other resource users.

4.2.5 Perceptual Differences in the Use of Protected Resources

The state discourse for managing resources especially wildlife resources in the Lake Rukwa basin has changed over time from the fence and fine approach to community conservation approach. The fine and fence discourse dominated the 1960s and early 1980s when it was replaced by the community conservation approach (Kideghesho, 2006). To the indigenous crop cultivators and migrant agro-pastoralists, the fine and fence approach and the community conservation approach have no significant differences as they still have little impacts on their perceptions. When asked to comment on how they viewed protected areas; 78 percent of all respondents did not share the view with the state. To them; protected areas meant nothing other than land denied from carrying out crop cultivation and/or grazing livestock.

The state needs for increasing land under protection as was previously done in 1998 and 2003 always met strong opposition from other resource users. Where restricted, exploitation was invariably done using other strategies of which the dominant one was corrupting local resource managers. Bribery was identified by 89.7 percent of the agro-pastoralists respondents as a dependable strategy. This was followed by illegal feeding of livestock in restricted areas during the night and/or during the rainy seasons and open rebellion to the local state directives.
Normally, disregarding state regulations were observed to be common in all villages surrounding nature conservation areas because of different perceived reasons. Key informants in Mtenga village, for example, informed the researcher that some restricted resources in Katavi National Park hold a special position in their culture. Though fully protected, researchers were able to witness different worship tools and symbols surrounding the Katabi tree which is close to Lake Katavi inside the Katavi National Park (see Figure 4.4).

Figure 4.4: Katabi tree of Worship in Katavi National Park
Source: Field Data, 2018.

The problem of entering illegally into the Katavi National Park was reported by the national park workers as a serious one. Illegal fishing and hunting in the park were cited as the leading factors behind environmental degradation and decline in the national park productivity (Caro, 2008). These acts frequently subjected them to serious confrontations with the state coercive machinery. It also signified the extent to which state discourse regarding the management of the wildlife resources was not shared by the indigenous population.

The practice of the indigenous communities of going against the state directives were thus noted to be consistent with Gezon (1997) findings in Madagascar in which overlapping and contradictory conservation practices in Ankarana region resulted into unresolved resource use conflicts between the indigenous Antankarana population, the Malagasy state and the international NGO which was involved in the management of the forest resources on behalf of the Madagascan government and the international community. In this study, it was revealed that, although the Madagascan state restricted indigenous people from entering in the Ankarana protected forest, the indigenous population chose to go against the state whenever they wanted to carry out their ritual activities. The resultant conflicts of interests could only be sorted out through negotiation and not by force.

4.2.6 Fallow Lands Utilization and Conflicts Persistence

Variations in the perceived values of land resources among resource users in the Lake Rukwa basin was also revealed in the way actors perceived the use of fallow lands. Fallow land is described as land which is used for crop cultivation but which has been left with no crops on it for a considerable time to let it recover its fertility. The practice of leaving land fallow was a common practice among crop cultivators in the study villages. It was claimed that this practice enables land to regain its fertility. It was thus part and parcel of the indigenous crop cultivator's culture. Before the coming of the agro-pastoralists, this was a dominant practice of fertilizing land as the population in the locality was very low.

With the increase in the number of agro-pastoralists and their cattle, this practice proved to be impossible because of the increase in the demands for the land. Leaving the land fallow proved to be problematic because of the differential utility interpretation. It followed then that, when indigenous crop cultivators left the land under fallow, agro-pastoralists perceived it as an idle land suitable for grazing. For that much, farmlands that were left fallow for the conceived purpose were immediately utilized for grazing livestock by the migrant agro-pastoralists. In Mbuyuni village, for example, key informants informed the study that violent conflicts experienced were partly resulting from the forceful use of fallow land for grazing livestock.

Similarly, the practice of initiating fire engrained in the culture of both communities was observed to be an important indicator of the conflicting discourses regarding the mode of its administration. For the agro-pastoralists, lighting of bush fire was random being initiated at any time of the dry season to hasten the re-growth of grass for pasture. Crop cultivator's informants, on the other hand, perceived random bush fires as a nuisance since it spoiled fallow land. They informed the study that, once the land is burned the topsoil became easily eroded leaving behind the hardpan of infertile bedrock.

Moreover, fire initiated by the agro-pastoralists frequently destroyed their bush granaries as it was the custom of the indigenous crop cultivators to harvest and store farm produce in the farm granaries. This was caused by the inability of shifting all the produce to the village at once owing to transport and storage problems. Thus, the initiated random bush fires frequently destroyed their granaries leading to conflict.

Serious conflicts over the use of fallow lands were more pronounced in Mbuyuni and Totowe villages than in Mtenga and Ivuna villages while problems of food granaries destructions were more raised as issues leading to conflicts in Mtenga and Lyazumbi villages than in other villages involved in this study. In all cases, the underlying factors behind conflict persistence were found in the differential perceptions held by the given resource use actors. Such differences were also replicated in other parts of sub-Saharan Africa (see Gaussett, 2005). It reflects the fact that distinct approaches to the use of the given resources when coupled with divided actors' perceptions frequently create an enabling environment for resource use conflicts.

Another area in which differential perception in the use of land resources was observed was in the practice of land clearance for cultivation and tsetse fly control. In the context of the Lake Rukwa basin indigenous dwellers perception, forest degradation meant forest clearance and overgrazing. On the other hand, agro-pastoralists perceived forests clearance as a strategy for farm preparation and tsetse fly control. Having been introduced by the British colonial government, this practice was taken aboard by the Sukuma agro-pastoralists as a dependable strategy for earning livelihoods in an environment dominated by tsetse fly such as the Lake Rukwa basin. The four decades of the Sukuma existence in the Lake Rukwa basin has thus been blamed by the state and the indigenous crop cultivators respectively as responsible in the formation of bare landscapes.

4.2.7 Power Abuse and Resource Use Conflicts in Lake Rukwa Basin

In the Lake Rukwa basin, the political power which influences the use of resources rests in the local government while the economic power was mostly possessed by the rich agro-pastoralists. This power categorization was made by

the indigenous crop cultivators who claimed that the agro-pastoralists use their economic power to victimize them. For one to understand the political ecology of the Lake Rukwa basin, one has to look at these power balances and the extent to which they directed the use of resources in the basin.

It was noted that the source of power for the agro-pastoralists was found in the cumulated cattle wealth. A household with large herds was defined as a wealthy and powerful one and their influence was great. The majority of the indigenous crop cultivators hated the Sukuma agro-pastoralists not because they were not beneficial to them but because of their arrogance and the environmental consequences they were causing on the natural resource base of the Lake Rukwa basin. The Sukuma were very well aware of this but when asked to comment on why they were hated, the only answer provided was envy. Although the majority of the respondents (47.7 percent) had perceived the Sukuma presence in their village as both assets and liability, 65.5 percent of all respondents pledged the government to repatriate them from their villages. By being aware of this situation, the Sukuma agro-pastoralists strived to maintain their firm establishment in the locality through the use of the possessed cattle wealthy. Such wealth gave them the confidence to use resources in prohibited areas such as the national park and game reserves. They were also able to feed deliberately on indigenous crop cultivator's farm crops confidently as they were able to meet the compensation costs whenever that arose. It was this power abuse that frequently indulged them into land conflicts with other resource users.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The study concludes that, in Lake Rukwa basin, conflicts among resource users persist because of the incompatibilities inherent in the resource use discourses held by different resource users. These incompatibilities leave out the gap which is then exploited by individual actors through corruptive relationships for personal gains. In turn, the beneficiaries of corruptive practices neglect to effectively implement the existing laws and by-laws which in turn make the public lose its trust in the local state's ability to solve conflicting problems. Such confidence loss obliges them to take matters in their hands. The overall results are thus persistent resource use conflicts and further degradation of people's means of livelihoods and the resource base itself.

Since the Tanzania national constitution grant the right to every Tanzanian including the migrant agro-pastoralists to settle anywhere in the country provided that they do not violate laws, this study suggests that there is a need for establishing mechanisms useful for promoting coexistence between different resource users in Lake Rukwa basin by setting out a platform which can enable profitable dialogue between the government and other resource users for reaching consensus on common resources use modalities suitable for all. The platform should use a bottom-up approach and the end product should be a

model of resource use respected by all. Secondly, corruptive practices in the question of access to and control of resources of the Lake Rukwa basin are an open secret. To curb this, the government in collaboration with other stakeholders should establish mechanisms of controlling corruptive actors by all means. One of the effective ways is for the government to institute periodic transfers of seasoned officials as suggested by the respondents. This will help to destroy established corruptive linkages between government officials and the migrant agro-pastoralists. Corruption eradication campaigns should be an ongoing action as this is perceived by the study as a long-lasting solution.

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