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Contemporary Socio-Economic Determinants of Cattle Ownership by Farmers Living at the Edge of Protected Areas: A Case of Hwange Rural Ward Fifteen, Zimbabwe

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Abstract:

This paper presents socio-economic determinants of cattle ownership in Hwange District, focusing primarily on Ward 15, located adjacent to Hwange National park and Sikumi Forest Reserve. The study utilised both quantitative and qualitative approaches. Quantitative data were collected using structured questionnaires which were administered to cattle owners only, (N=114). Focus Group Discussions and Key Informant Interviews were used to collect qualitative data and further insights on cattle ownership. Analysed data shows that age is a major determinant of cattle ownership. Other important socio-economic variables such as ethnicity, religion and traditional beliefs such as status, power and respect-all associated with wealth in society emerged as some of the socio-economic determinates of cattle ownership. Apart from provision of grazing and other forms of pasture, the edge presents serious challenges to livestock ownership because of zoonotic diseases from wildlife and predation, as well as underdeveloped state supported veterinary services and output markets for cattle. Knowledge of zoonosis and risks associated with driving cattle into protected areas needs to be expanded if local herders, especially those within the highest cattle owning age group, are to benefit from improved prices and health cattle.

Keywords; protected areas, livestock management, socio economic determinants, decision making

1. Introduction and Background

Livestock, especially cattle, play a very significant role for most of Zimbabwe's rural based households which include provision of draught power, manure, meat and transport, as well as income and social security or risk aversion (Barret, 1992). Cultural roles of cattle include marriage, maturity rituals, funerals, weddings and restitution (Bayer et al, 2004), as well as prestige, pleasure, respect and power (Shackleton et al., 1999). However, people living at the edge of protected areas face numerous challenges, key among them being absence of clear rights to economically valuable resources. This is largely the case because regulations often preclude the opportunity for villagers to sustainably use natural resources (Anderson et al, 2013).

This paper is based on a study which sought to understand whether protected areas present a serious challenge to cattle ownership and access by people living at the edge. Critical to understand is that this study took place in 2015, three decades after the launch of Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). This programme was meant to empower local communities living close to protected by opening up avenues for revenue collection from wildlife-related activities and also planning their livelihoods around agriculture and wildlife. We therefore investigated both direct and indirect variables influencing cattle ownership expecting that protected areas will emerge as powerful drivers of negative cattle ownership. This paper is organised into a few sections. It reviews literature that specifically deals with determinants and drivers of cattle ownership to obtain theoretical perspectives or concepts. Next, we develop a conceptual framework for analysing the socio-economic determinants of cattle ownership. The methodology section highlights how the study was conducted and the methods used to collect data and analyses. It also presents study area. The last section presents results from the assessment, discussion and conclusion of the study.

2. Literature Review

Livestock, especially cattle, are crucial to meeting livelihood needs and eradicate poverty among the rural poor who constitute 70% of human population in sub Saharan Africa (Becks 2005; Richards 2010). Livestock ownership cushions rural households against vulnerabilities triggered by routine seasonal food and income through selling and consumption of animal products. Benefits from cattle also include provision of milk, manure, draught power Maburutse et

al., (2012). Cattle markets have long been a main way of investing capital for people living in the communal lands of Zimbabwe (Giller et al., 2013). Cattle also serve as an indication of one's wealth status or status symbols (Chimonyo et al., 1999; Ndebele et al., 2007). Cattle also play a pivotal role in socio-cultural function such as bride price or lobola payments and conciliation of ancestors. Mavedzenge et al., (2006) adds that cattle can also be exchanged or loaned to neighbours to enhance relationship ties.

Building and strengthening of social networks can also be realised through cattle ownership and management strategies. Betterncourt (2013) defines social capital as about the value of social networks bonding similar people and bridging between diverse people with norms of reciprocity. Many poor households either share or loan cattle with neighbors and relatives. In case of absentee owners, the remaining family members can keep livestock. Livestock social functions correspond to the symbolic values associated with other animals for the fulfillment of a set of rituals and social responsibility of families and communities. Livestock gives social status when it demonstrates wealth. Grahn & Leyland (2005) argued that economic status is realised when cattle facilitate the access to informal credits and loans to the households. Cattle are also used in traditional rituals, ceremonies and festivals and are given as a gift in church, for example, installation of ancestral spirits, ritual slaughter, and bride wealth. In addition, some cultures consider certain animals to be sacred for example cattle in India and in others cultures particularly Muslims animals such as pigs are impure (Ouma et al., 2003).

Livestock ownership in sub Saharan Africa is deeply rooted in culture, Rwelamira et al., (1999). Thus, the control of household livestock is culture and context specific. Traditional men are responsible for keeping and selling of large animals such as cows among other animals whilst women claims control over small livestock such as goats, pigs and poultry. Decisions to manage these livestock also follow suit. However, according to Heffernan (2004), livestock ownership involves costs for the poor farmers such as high expenditures for animal healthcare for those that own and keep livestock.

In countries such as Tanzania, Zambia and Malawi, women involvement in cattle ownership is limited but they do have access to animal power for cultivation limiting through hiring and borrowing which may obstruct production (Heffernan 2004). Widows, divorced and abandoned women lose the right to livestock through patriarchal inheritance systems and are accordingly economically and culturally marginalized (Van Dach et al., 2007).

McLeod (2001) argues that age is importance when it comes to cattle ownership. He further comments that young men who have not reached thirty years rarely own livestock as they still under responsibility of their parents. Older men over the age of sixty-five are the ones that own most livestock. Ncube et al (1992) comments that men over sixty-five years, when given retirement packages they buy cattle as a form of investment. Women will then inherit their husband's cattle and will be responsible for decision making processes concerning that livestock.

Anderson et al., (2013) note that many people living on the boundary of protected wildlife areas now find themselves residing in newly designated Trans Frontier Conservation Areas (TFCAs), but with little clue as to what it actually means. With conservation in these areas still ill defined, they continue to live on the wildlife frontier and are exposed to the risks that come with it. Making a living on the fringe of Protected Areas can be unsafe business as it is often dependent on the low and erratic rainfall that usually characterises these areas. There is risk of crop destruction and loss of livestock to wild predators or diseases and even loss of human life to wildlife as the boundaries of Protected Areas are permeable to various degrees.

Disease transmission is arguably one of the major obstacles to the coexistence of wildlife and livestock in sub Saharan Africa (Bourn & Blench, 1999). Movements of both humans and animals occur across the boundaries of Protected Areas often driven by resource gradients. Generally, wildlife livestock interaction has been defined as the direct or indirect contact of wildlife and livestock with transmission of pathogens bi-directionally between wildlife and livestock (Bengis et al., 2002). The livestock wildlife interface can be classified as linear, that is along a fence, or patchy reflecting habit preferences of a disease host, at shared water and grazing points and such cases are popular in savannah ecosystems of Africa. Cleaveland, (2006) asserts that the transmission of disease pathogens can be indirect. Wildlife and livestock behaviours in terms of feeding are different whereby wildlife tends to avoid contact with livestock and humans for example Anderson et al (2013) posits that, buffaloes and other wildlife are observed at night and early in the morning watering and grazing exactly where livestock are observed at different times. This entails that disease transmission is not always direct physical interaction but can be due to indirect contact through the soil, forage, and water with which the other animal has had contact and left discharges such as urine, saliva. Faeces, nasal or ocular discharge or through common insect vectors (Fenner 1982).

Community based animal health systems for instance, have been advocated as improving the livelihoods of secluded, marginalised and undeserved livestock keeping communities, through improved productivity and access to markets (Grahn & Leyland, 2005). The current schemes implemented regarding livestock health, including vaccinations, acaricide treatments or other prophylactic actions, do not address local priorities as perceived by livestock keepers themselves. Keeley & Scoones (2003) argue that this is largely because livestock disease management is driven by government veterinary services at the national level, which often concentrate their limited resources on control of transboundary animal diseases to allow international trade, which is regulated by policies negotiated at the international level. Relations between wildlife and domestic animals present challenges in the livestock industry worldwide, particularly in East and Southern Africa where many communities are closer to the wildlife areas, Cleaveland et al., (2006). Rural poverty has been increased due to the spread of diseases from wildlife to domestic animals, which has declined livestock production, and this has often caused conflicts between people and wildlife especially over the issue of boundaries created to demarcate communities from wildlife-reserved areas (Mutambanvumi, 2006). The Ngorongoro conservation area in Tanzania is one example where the Masai cattle had to be moved away from main grazing lands in the short grass plains to

avoid malignant catarrhal fever, which is transmitted from wild beasts' calves. However, this change has caused pressure on the highland ecosystems and exacerbated tick-borne diseases (Field et al 1997). Communities adjacent to Serengeti National Park in Tanzania present an inverse association between livestock ownership and involvement in game meat hunting. Game meat from livestock development programs could be a source of protein in these areas to avoid the demand for wildlife meat but the production of livestock is much constrained by the transmission of diseases from wildlife such as trypanosomiasis (IFAD, 1995). Livestock predation by wildlife, especially lions, hyenas and leopards play a significant role in cattle ownership by farmers living at the edge of protected areas (Anderson & Wichtitsky et al., 2013).

The above review points attest to the existence of multiple drivers of cattle ownership at the edge. A fairly recent study shows that the macro-economic environment plays a significant role in cattle ownership by people living at the buffer of protected areas (Zishiri 2012). The study found out cattle owners failed to sustain large herds because of inability to pay for drugs to treat diseases often associated with the edge. These include Brucellosis, Food and Mouth Disease (FMD), Black Leg and lumpy skin, among others.

3. Conceptual Framework

Based on the above review of literature, this study was conceptualised around a number of variables. We found it imperative to investigate the role of key social variables such as age (MacLeod 2001), gender (Ouma 2003; Hefferman 2004) and education (refs). Key to the study was investigating the role of culture and ethnicity in influencing cattle ownership by farmers in the study area (Bourdillon 1984; Rwelamira 1999; Ndebele et al., (2001). Networks and kinship ties were also investigated for their role in promoting cattle ownership and access by sampled households (Grahn & Leyland 2005; Mavedzenge et al., 2006; Bettercourt 2013). Also highlighted in reviewed literature was the role of status and symbolic power as major drivers of cattle ownership (Chimonyo 1999; Ndebele et al., 2003). This section briefly presents what we consider as better in understanding cattle ownership dynamics. Finally, we built our conceptualisation of the study on the role the 'edge' plays in cattle ownership and access. We investigated the role diseases and predation plays on cattle ownership and access by people living adjacent to protected areas.

4. Methodological Issues and Data Analysis

The multiplicity of issues and varying statuses of our informants demanded use of both quantitative and qualitative approaches. Quantitative methods were largely planned around a close-ended questionnaire which investigated largely demographic and socio-economic type of data (N=114). These were administered to cattle owners, only. The qualitative data collected during the survey included age, education, cattle ownership, religious affiliation, ethnicity, employment history and disease prevalence among others. Qualitative approaches, largely drawn from the phenomenological research tradition, guided most of the research on cultural values, symbolism and perceptions of the role of power in driving cattle ownership. These were also organized around Key Informant Interviews and Focus Group Discussions. Key informants largely comprised government officials, technical experts, researchers, park staff, as well as chiefs, headman, and village headmen. Focus group discussions comprised both none and cattle owners, as well as women and men, across different age groups. These were done to solicit more information and validation. Interviews Issues such as reciprocity and social networks were also investigated qualitatively. Finally, perceptions on whether protected areas presented a barrier in terms of cattle constricting zoonotic diseases were also investigated both quantitatively and qualitatively. The Statistical Package for Social Scientists (SPSS) version 21 was used to present and analyse quantitative component of the data while the thematic approach was found appropriate and adequate for the qualitative one.

5. Study Area

This study was conducted in ward 15 of Hwange district in Matabeleland north province, Zimbabwe on three villages in Ward 15. The study area is at the buffer of Hwange National Park (HNP), east of Sikumi Forest and southeast of Dete town. The area is classified as agro-ecological region 4 and 5, and is characterised by Kalahari sands which are infertile and erratic rainfall (Guerbois 2012). The villages include Magoli, Chezhou, Dingani and Sialwind. The study focused more on Magoli and Chezhou villages because of proximity to the protected areas. HNP is the key protected area that is now part of the proclaimed Kavango-Zambezi Trans Frontier Conservation Area (TFCA). It is home to a large selection of wildlife some that are predators of both humans and livestock by lions, hyenas and painted dogs and also sources of human and livestock diseases, notably FMD that has serious economic implications for both farmers and country. The major points of action are people driving their cattle inside the protected areas, conflicts with park and forestry authorities over straying livestock and poaching.

6. Determinants of Cattle Ownership

6.1. Age

Age emerged as a significant determinant of cattle ownership in this study. Data showed that informants at the age range of 45-65 (50%) own more cattle than most age groups, under 30years, 6% and above 65years, only 3% (Fig 1). Changing the age range, a bit, shows that the 31-45-year group constitutes 41% of all cattle owners, which is slightly significant. Further interrogation of the relationship between age and cattle ownership highlighted people aged 31-65 years have the advantage of having been employed enabling them to buy cattle through earned income as well as having been exposed to other social means of accessing cattle, for example kufuyisa, described elsewhere in this paper. The

reported practice that was described by informants at various data collection forums was to start with a single cow and build on.

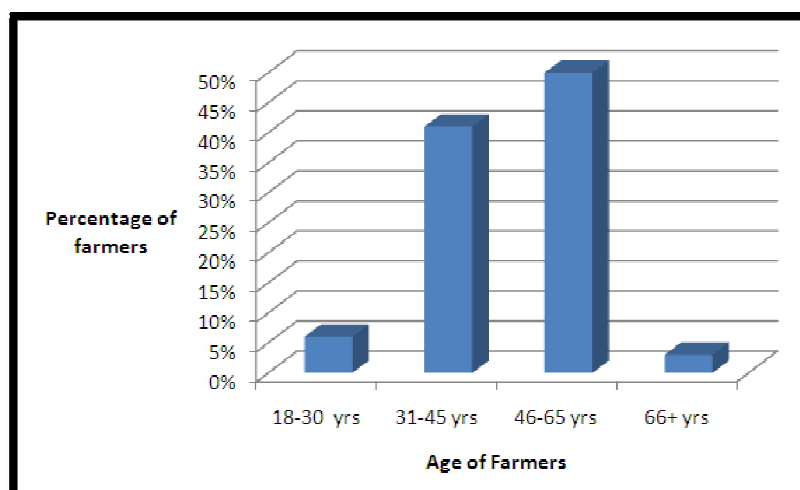


Figure 1: Age and Cattle Ownership
Source: Field Data

6.2 Gender

Analysed data show that gender is a significant determinant of cattle ownership. Among all cattle owners who participated in the study, 72.7% and 27.3% were male and female, respectively.

The total number of livestock owned by all respondents was 965. Women owned only 258 cattle compared to men who owned 707 cattle. Follow-up interviews confirmed the above gender bias in cattle ownership. The most effective way for poor males to own cattle in the study area is through buying one cow and waiting for it to reproduce.

6.3. Reciprocity

Ukusisa or ukufuyisa, which is reciprocal herding of cattle and getting a beast, in return is a very common method for young males to own cattle in the study area. The beast is given to the young male cattle herder after an agreed period. The reciprocity is also determined by the size of the herd and is based on a mutually agreed contract. The contract stipulates the number of cattle the herder will receive during and after the expiry of the contract. Female respondents confirmed that they do not enjoy the advantages of ukusisa system. First, the problem expressed by most women with regard to kufuyisa to this predicament is that the process entails the herder moving to live in the home of a cattle owner. The second, problem if it is loaning is usually arranged with a male member of the family who also happens to be in most cases the household head and is not likely to move into another home as a result of marriage or elopement.

6.4. Culture

Culture, in its various forms, is a major and cross-cutting driver of cattle ownership in the study area. Interviews with informants revealed that cultural practices such as inheritance and bride price were key sources of cattle for women in the study area. Informants expressed (81%) that women often get a cow as part of bride wealth known as *mombe yehumai* following marriage of a daughter. Interviews highlighted that women also start with a female goat which they are given as part of the traditional practice known as *kusungira*, which they are given following a daughter falling pregnant for the first time. If the goats multiply, they are sold and income received is used to buy a cow. However, it was explained by female informants that it is very difficult for women to own cattle; hence most of them end up owning small livestock such as chickens and goats. In addition, even though inheritance is an avenue for women to own cattle, they are not the favourites as the system favours and prefer male offspring of the deceased and in the absence of male heirs, surviving spouses are preferred including the dead father's male brothers and their sons. Though in decline because of Christianity, other cultural values reported by informants as reason for owning cattle include traditional rituals such as *umbuyiso* (bringing the spirit of the deceased) (16%) and payment to appease avenging spirits *ngozi*, following a family member murdering a person, 3% (see Box 1 below).

"Cattle no longer have any cultural relevance. Most people in this area are now Christians and no longer believe in traditional cultural practises like *umbuyiso* or *kurova guva* and *kuripa ngozi* but payment of bride price or *lobola*" Cultural Practices and Cattle Ownership

6.5. Ethnicity and Cattle Ownership

Analysed data shows that ethnicity is a major discriminator among cattle owners in the study area. For example, statistical analysis of quantitative data shows that Nambiya speaking people represent the largest group of cattle owners (54.5%), Ndebele (27.3%) and Tonga (9.1%). Ownership rate of cattle among the very small ethnic groups was reported to be 4.5% apart for Bemba and Lozwi.

Chi-square test was used to determine the relationship between cattle ownership and ethnicity. Table 1 below illustrates the chi-square test. With the value of ($\chi^2=3.743$, $df=5$ and $p=.487$), we reject the null hypothesis that there is

no association between ethnic group and cattle ownership because the p value is far much greater than 0.05. Thus, cattle ownership in Hwange does not depend on one's ethnic group. Policies must therefore target all cattle owners irrespective of their ethnic group.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-square	3.743	5	.587
No. of valid cases	114		

Table 1: Chi-Square Tests, Association between Ethnic Group and Cattle Ownership

Source: Field Data

6.6. Religious Affiliation

Survey results show that there are two major religions respondents are affiliated to, Christianity and African Traditional Religion (ATR), as well as a small proportion of the sample affiliated to religions classified as other. A very significant proportion of respondents who reported owning cattle are Christians (82%), followed by ATR believers (17%) and other 1%. Most of the cattle owners are Christians as compared to traditionalists. Focus Group Discussions also confirmed that most of the people belong to a number of Christian denominations. However, these percentages do not give us a true picture if one's religion really determines him or her to own cattle.

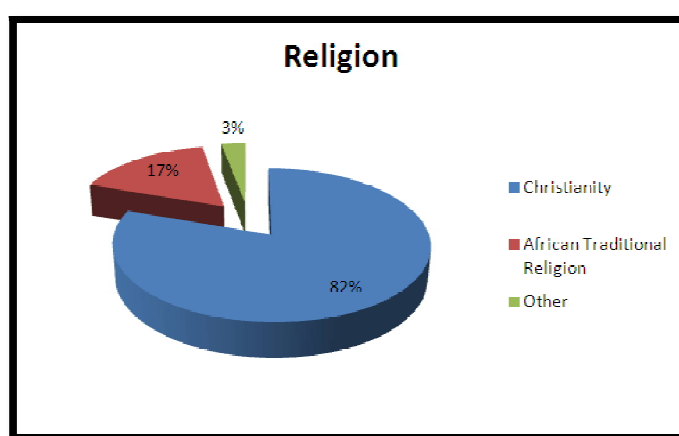


Figure 2: Religion and Cattle Ownership

Source: Field Data

	Value	df	Asymp. Sig. (2 sided)
Pearson Chi-square	2.479	2	.289
No. of valid cases	114		

Table 2: Chi-Square Tests (Association between Religion and Cattle Ownership)

Source: Field Data

Table 2 shows that there is no association between religion and cattle ownership. With the chi square value of 2.479, df=2, p=.289, we accept the null hypothesis that there is no significant association between religion and cattle ownership.

6.7. Inheritance, Purchases, Bride Wealth and Loaning

There are a number of ways through which people have acquired and accumulated cattle. Respondents interviewed (50%) expressed that they have acquired cattle through inheritance where the owner dies and then livestock distributed to remaining family members. Of particular interest are the 36.4% who pointed out that they bought their cattle. Those who got their cattle through lobola payments were 9.1% and 4.5% have loaned cattle.

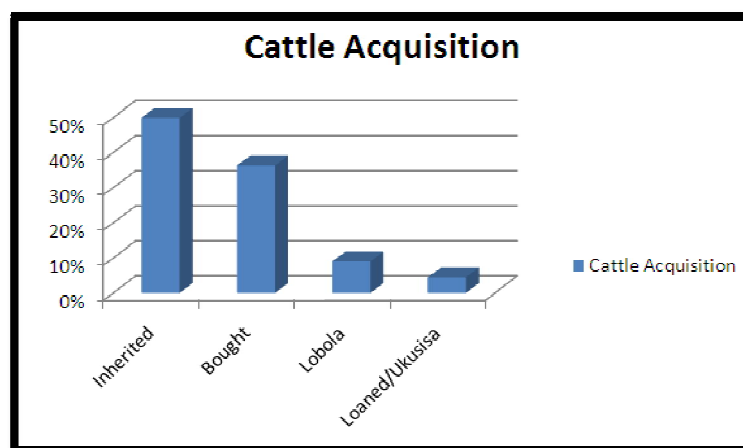


Figure 3: Forms of Cattle Acquisition
Source: Field Data

The study findings revealed that the traditional practice of loaning cattle to other people for keeping in return for draught power, milk and manure has significantly collapsed in ward 15. Data from Key Informant Interviews and Focus Group Discussions revealed that there is a significant drop in the loaning or kusisa practice because of a decrease in cattle numbers over the past two decades.

6.8. Economic

Economic reasons represent the major drivers of keeping cattle by respondents who participated in the survey (82%). Cattle provide economic security against droughts which affect regularly affect crops. The dry conditions, predicated on the study area's agro-ecological location and plenty of acacia trees favours livestock production (especially goats) and is against crop production, particularly maize. Further analysis shows that 91% of respondents value their cattle for the income they get from them, either through direct sales, selling services such draught for plowing and ferrying goods and selling by-products, meat, milk and hides.

6.9. Diseases

Diseases passed contracted by cattle and other livestock were mentioned by all respondents as major challenges to cattle ownership in the study area. Informants reported that such contractions happen when cattle and wildlife share grazing and water. High on the list of zoonoses mentioned by informants are foot and mouth disease, heart water; lumpy skin, black leg, red water, gall sickness, anthrax and bovine tuberculosis, among others which affect small livestock.

7. Discussion

Owning and keeping of communal cattle fulfil multiple roles in the lives of communal farmers. Some of these roles are economic, social and cultural in nature. From the study findings it emerged that livestock plays a very paramount role and have significant social functions. Though, many of these functions are often ignored when estimating the total contribution of livestock to wealth and wellbeing of Hwange rural households. The economic value of the livestock social functions is difficult to evaluate and specific research needs to be done in order to better understand and assess the role of livestock in the wellbeing and in development of rural communities in Hwange and to quantify its economic value. Respondents alluded that cattle are a status symbol even though the economic role took the pole position on owning and keeping of livestock. More so, cattle generate income among communal households through sales of the animals and their products. Cattle substantiated to play a focal role in socio-cultural function of brides' wealth or lobola payments and mollification of ancestors. Cattle exchanged or loaned between relatives and owners prove to neighbours to enhance kinship ties and this view is shared by Mavedzenge et al (2006). Respondents in Hwange still use cattle for lobola payments even though it is now a rare thing to see people getting married legitimately. People now tend to co-habit with each, especially youth who start families just like that because of economic hardships in raising money to buy cattle for lobola.

Cattle ownership is a source of livelihood to the rural farmers. Rwelamira et al (1999), notes that livestock ownership in sub Saharan Africa is deeply rooted in culture thus the control of household livestock is culture and context specific, men are traditionally responsible for the keeping and selling of livestock such as cows and camels whilst women claims control over small ruminants such as poultry. In African patriarchal societies, men do decisions.

It is of importance to note that cattle are a symbol of status among African men thus all decisions to do with cattle have to come from them to contain their prestige. This is synonymous with the practices in the study area where cattle ownership is male dominated and decision making is mainly for men whilst women are into small ruminant production. According to Tangka et al (2000), gender division of labor and decision-making process are influenced by perceived value attached to the different animal species. Women usually have influence on species that provide a form of food security to the family whilst their male counterparts take responsibility on animals that have income generating purposes and have the ultimate decision-making role. In general, men control the monetised sector whilst women take precedence on unpaid subsistence sector (World Bank 1993).

Livestock are a primary form of saving and as an investment, it cannot be competed with by other sources and is a quick way for the poor to access income hence it is a means of capital growth, World Bank, (2000). Farmers in this study area rely more on livestock sales and proceeds for sources of funds to purchase inputs since there is a very insignificant number of farmers formally employed. The proceeds from cattle are central in the management of cattle and in meeting of day to day household expense such as school fees, food, drugs, funeral costs, council levy among others.

Livestock is used in traditional rituals, ceremonies and festivals and at times as gift in worships (for example, installation of ancestral spirits, ritual slaughter, and bride wealth). Betterncourt et al (2013) notes that livestock social functions correspond to the symbolic values associated to each species and the use of animals for the fulfillment of a set of rituals and social obligations of families and communities. However, these traditional practices are no longer of significance in area under study. Most farmers refer to themselves as Christians who do not abide by any traditional rules and obligations. Rituals like umbuyiso or kurova guva in native languages are diminishing day by day.

Livestock is also important in building social networks. For many poor households, livestock may be shared or loaned between friends and neighbours or reared for absentee owners (Beck 1994). According to Van Dach et al (2007), ownership of livestock varies across the world, to smallholder farmers, ownership of livestock means more than just having assets but is also for social and cultural significance and recognition, hence, farmers fight to accumulate more livestock especially large animals like cattle.

Disease transmission is arguably one of the major obstacles to the coexistence of wildlife and livestock ownership in sub Saharan Africa (Bourn & Blench, 1999). Movements of both humans and animals occur across the boundaries of Protected Areas often driven by resource gradients. The study area's proximity to Hwange National Park (HNP) and Sikumi Forest poses threats to disease transmission through the interactions between wildlife and livestock. In wet and dry seasons, farmers observed wildlife such as buffalos, elephants and hyenas in their home areas. They also sent cattle inside the park when they face grazing and water shortages. Bengis et al (2002) similarly asserts that where communities are located close to wildlife conservation areas, wildlife are observed outside the Protected Areas and the most prominent in the transmission of diseases is the buffalo and elephant.

Lumpy skin, foot and mouth diseases have been reported by farmers to be contracted from buffaloes and the transmission is mainly through shared feeding and water sources. In Magoli and Chezhou, wildlife and livestock share the same grazing land and water sources. Wildlife is usually found within the 10km radius where livestock is allowed to graze and search for water sources. Kamativi is also affected by wildlife, even if it is further away from the protected areas; wildlife has also been observed and has transmitted diseases to livestock. However, Fenner (1982) articulated that transmission is not always direct physical interaction but can be due to indirect contact through the soil, feed, and water with which the other animal has had contact and left discharges such as urine, saliva, faeces, nasal, ocular discharge or through common bugs.

8. Conclusion

Cattle ownership is very important in the lives of rural farmers; however, their status and value are changing rapidly. Livestock form an integral and indispensable part of social life and sustenance of poor rural communities in Zimbabwe. With most owners, being males aged between forty-five and sixty-five years, these men make decisions concerning all livestock issues. The main driver of keeping livestock at the edge of a Protected Area is the assumption that the Protected Area will be a haven in terms of pastures and water. Nevertheless, it is of importance to note that cattle ownership at the periphery of a Protected Area can be of equivalent damage to the livelihoods of farmers as they incur many costs purchasing drugs to treat cattle of the diseases acquired from wildlife. That same amount of cash might have been used to start some income generating projects or supplement the livelihoods; instead, it is diverted for livestock management on diseases that can be avoided. Nevertheless, cattle serve as a form of income, as the poor do not have access to credit and banking facilities. Thus, cattle offer an alternative to their savings or accumulated capital and as a hedge against critical times.

Farmers can sell their livestock for urgent cash or use them as a form of insurance that can be sold to provide for the family. Most cattle are sold within communities where market prices constantly vary and are arrived at through negotiations where farmers have limited bargaining power. Depending on the circumstances and pressure to get ready cash in a depressed economy, most smallholder or communal farmers get low returns from their sales. As much as cultural norms in many poor rural societies place considerable value on livestock as an indicator of social importance in the community, cattle are no longer kept for social prestige and for cultural or traditional ceremonies. The socio-cultural practices are no longer common because of Christianity that does not allow the performance of these rituals to appease ancestors.

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