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UNDERSTANDING DYNAMICS OF FARMER-PASTORALIST CONFLICTS IN TANZANIA: INSIGHTS FROM KILOSA DISTRICT CASE STUDY

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ABSTRACT

Farmer-pastoralist conflicts over land resources in Tanzania are increasingly raising concerns in terms of security, livelihoods, and socioeconomic development. Against this backdrop, the article focuses on the Kilosa district case study to unveil the socio-political dynamics surrounding these conflicts to enhance insightful understanding. The article employs the environmental security and political ecology theories to explore the theoretical debates about the conflicts in question. The article draws on social constructionism philosophy that allows stakeholders' perspectives to be the epicentre of interpretation and analysis. It further draws on qualitative research design where a range of qualitative data collection techniques were employed, including in-depth interviews, focused group discussions, and documentary reviews. Data collected were analyzed through thematic and narrative analysis techniques, where resulting themes were interpreted and discursively integrated with existing literature. The findings show how the environmental security and political ecology theories reinforce or contrast the nature of farmer-pastoralist conflict dynamics in the district. It further suggests broader engagement of stakeholders in determining contested needs, areas of contradiction and a relevant framework for resource governance, access, and management of related conflicts.

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INTRODUCTION

Farmer-pastoralist conflicts in Africa are increasingly raising concerns in terms of security, livelihoods, and socioeconomic development at large (George et al, 2021; Tade and Yikwabs, 2020; Ajibo et al., 2018). So far, many devastating concerns have broadly been reported in the literature. In the Sahel region for example, these conflicts have led to fatalities with a typical example of Nigeria where approximately 6500 people have reportedly been killed due to 850 clashes that took place from 2010 through 2015 (Tade and Yikwabs, 2020). In Mali, the Dagon farmers are reported to have invaded one of the Fulani pastoralists' villages and killed 175 of them in the

year 2019 alone (Benjaminsen and Ba, 2021). Yet these conflicts are argued to increasingly being mutating from the conventional violent competition for scarce resources to ethnic identities, insurgency, terrorism, and religiousness (Benjaminsen and Ba, 2021; George et al., 2021; Ajibo, 2018; Nwanko, 2019)- while extending to cross border conflicts.

Unfortunately, this situation occurs and seems to continue aggravating amidst attempts by local and international actors to address them amicably (Falanta and Bengesi, 2018). These efforts include the gradual changes in land tenure regimes to address tenure inequalities bequeathed from colonial land tenure

regimes- perceived to favour the investors at the price of the vulnerable and marginalized farmers and pastoralists. The international effort can equally be reflected in the support of the World Bank in the transformation of land tenure regimes in different countries such as Tanzania and Ghana to empower the vulnerable who are in this case the rural farmers and pastoralists to own land under customary principles (Collins and Mitchel, 2018; Biddulph, 2018). From an experience point of view, other efforts have been focusing on the use of courts, peace and security committees and police. In rare cases where conflicts involve the use of arms such as guns and where the intensity of the violence reaches an unbearable threshold state militaries have been intervening to bring peace and tranquillity. In Mali for example, frequent incursions on Dagon communities by the Fulani pastoralists of the north operating in the framework of insurgency have always met a reaction from the consortium of the Malian army and French army (Benjaminsen and Bar, 2021).

Amidst these conflict dynamics and unreservedly commendable efforts to address them, farmer-pastoralist conflicts have continued to exacerbate -a situation causing even more dilemmas to the security and socioeconomic development. This situation reflects a failure to address the root causes of the conflicts on the one hand and sustaining realized peace on the other hand. While this is the case, the current social, political, economic, and ecological context seems to suggest that these conflicts will continue to aggravate while posing more risks to the peace, security, and socioeconomic development of the people of Africa. This envision is grounded in the recently emerging aspects as follows. First, the total population of Africa is estimated to have grown to more than one billion within the past half century (Home, 2021). Typical increases are well noted in Nigeria 206 million, Ethiopia 116 million, Tanzania 59.7 million, South Africa 59.3 million and Kenya 53.8 million (Home, 2021). This increase reflects a corresponding increase in pressure on land resources (Nwankwo, 2019), which in connection to the broader concerns on land governance (Home, 2021), land conflicts are impliedly continuing to increase. Second, the embrace of development theories and global-centric economic narratives has witnessed the emergence of large-scale agricultural investments implying rampant land grabbing and the elite's rent-seeking behaviour

(Matondi,2011; Soeters et al., 2017). Third, the widely reported global warming and consequential climate change is seen as a source of desertification in the Sahel and intermittent droughts in other parts of Africa including Tanzania. This implies an increase in land scarcity, violent competition and resorting to alternative livelihood strategies such as cattle wrestling, cattle theft, insurgency, and terrorism. Further dynamics adding to this dilemma is the recent engagement of political patronage while taking sides between farmers and pastoralists for political or personal gains (Tade and Yikwabs, 2020). This development is leading to widened cleavage between the two distinct production systems and subsequently more complexity and dilemma in dealing with the conflicts in question.

Scholarly sources indicate that Tanzania has not been spared from these conflicts and their consequences (Rweyemamu, 2019; Krätli and Toulmin, 2020). Conflicts involving farmers and pastoralists have been increasing across various parts of the country because of several causes including: massive land acquisition by financially buoyant individuals and those with influencing powers in the government, appropriation of pastoralists' grazing land for farming and wildlife corridor extension, and illegal appropriation of village lands by multinational companies (IWIGIA, 2016; Rweyemamu, 2019). These appropriations especially in the northern part of Tanzania (Arusha and Manyara) have led to periodic migration of pastoralists to other regions including Morogoro and Kilosa district in particular, causing conflicts between pastoralists and encountered farmers.

While some of the literature attempts to categorize these conflicts as climate change driven, others link them to structural variables including biased land allocation policies, rent seeking behaviour, ineffective institutions for conflict resolution and socio-political context (Benjaminsen, 2009; Benjaminsen and Ba, 2020). Nevertheless, all manifestations of conflicts have resulted into numerous devastations to farmers, pastoralists and other stakeholders. For instance, "in 2007 alone, 40 pastoralist houses were reportedly burnt down in Babati district following a conflict between pastoralists and Buruge investor in Wildlife Management Areas (WMAs), encroachment by farmers onto pastoralist village land in Kiteto district (Murtangos village) in 2011 led to frequent clashes between farmers and pastoralists, operation remove pastoralists from

Kilosa district in 2009: 2000 people and 20,000 livestock evicted; 700 million shillings paid by pastoralists in 'fines' to the district authorities and in 2013 – Regional and District Commissioners declare an operation to evict all “illegal pastoralists” from the Morogoro District ” (IWGIA, 2016; Rweyemamu, 2019: 17). Many of the conflicts involving farmers and pastoralists especially in the Kilosa district have reportedly led to sporadic killings, destruction of homesteads, crop damages and people’s displacement (Benjaminsen et al., 2009; IWGIA 2015a, Falanta and Bengesi, 2018).

While this has been happening, Tanzania is endowed with a large area of land resources amounting to 95.5 million hectares (ha), with nearly 44 million hectares of which are suitable for both agriculture and livestock keeping (URT 2010; IFAD 2014). While some causes of the conflicts in question are linked to environmental stress (Homer-Dixon 2009; Benjaminsen and Ba, 2020), others are linked to dynamics surrounding land regime changes dating back to the colonial era (Greco 2016). However, many of the highlighted root causes do not provide a direct answer to the nature of these conflicts in the context of Kilosa and Tanzania sociopolitical dynamics. Part of the reasons being that they appear to be generalized across contexts. Thus, the need for insightful analysis of the Kilosa case study is very important if we are to overcome the associated consequences, especially due to the unique socio-political environment having its roots from the legacies of colonial and immediate post-colonial regimes such as socialism policies. Kilosa has been chosen due to persistent and recurrent farmer-pastoralist conflicts unlike other districts in Tanzania, and has a history that dates back to the era of land alienation by colonial administrators in favour of settler plantations and the establishment of Mikumi Game Reserve (Benjaminsen et al., 2009).

Environmental security narratives

There is a significant body of literature within the field of conflict studies that examines the relationship between environmental factors and violent conflict – environmental security theory (Homer-Dixon 1999; Peluso and Watts 2001; Van Leeuwen and Van Der Haar 2016). This literature has apparent potential relevance for the study of farmer-pastoralist conflicts because it seeks to explain the circumstances in which social groups come to compete violently for key resources,

such as land or water. Since farmer-pastoralist conflicts are ostensibly about access to land, it makes sense to consider what this literature contributes to our understanding.

The core assumption, especially in the early iterations of environmental security theory, is that conflicts are driven by competition over scarce resources (Homer-Dixon 1999). For example, when two or more social groups depend on access to a local water supply for their livelihoods, pressures on the availability of that water may affect a group’s ability to meet key needs, creating a dynamic of competition that can, under certain circumstances, precipitate violence. The particular contribution of environmental security theory lies in its explanation of this scarcity and the dynamics of competition linked to it. A review of the literature shows a useful evolution of this explanation. Early theorists – referred to as new Malthusians – explained scarcity in terms of simple mechanisms such as increasing population numbers (Homer-Dixon 1999; Akov 2017). Population increases can have different causes (such as high birth rates or migration) and effects – for example, degradation of land due to over-intensive farming, or merely reducing access to (quality) land for local populations. This has an intuitive appeal to farmer-pastoralist conflicts – we can see, for example, that if the population of settled farmers increases, then these groups might seek to extend their land into areas used by pastoralists, leading to tensions. Or, if the land used by pastoralists for grazing cattle becomes degraded, pastoralists might in turn seek access to more fertile lands, potentially bringing them into conflict with local farmers. Studies by (Homer-Dixon 1999; Kahl 2001; Bernauer et al. 2012; Akov 2017) reflect this approach.

However, later theorists recognised that resource scarcity was a more complex phenomenon in sub-Saharan region, and attributed to several respects (Kahl 2001; Peluso and Watts 2001; Bernauer et al., 2012). First of all, they suggested that there can be multiple and interacting causes of resource scarcity which include both social and environmental factors. For example, Boone (2015b) and Kalabamu (2019) argue that changes to patterns of land ownership and tenure associated with colonisation led to the increased insecurity of customary tenure in two ways. First, a large proportion of customary land was treated as idle and therefore became subjected to the alienations to pave the way for colonial-settler agricultural investment. Second, a large

proportion of the so-called vacant customary land predominantly treated as commons was converted into game reserves or protected land. Whereas Kalabamu's account reports a high degree of appropriation in countries such as Zimbabwe, South Africa, Ivory Coast and Namibia, which were under direct colonial control, the situation was slightly more lenient in protectorate countries such as Tanzania. In other words, scarcity experienced in the latter country could be associated with many other factors apart from just land takeover.

Regardless of this difference in severity which is deep-rooted in colonial history, studies show that there has been a relatively similar implication on the local farming and grazing activities in respective countries (Ntumva, 2022a; Rweyemamu, 2019). These implications can be put into two categories. First, the size of the land used for farming and livestock keeping was significantly reduced. Being the vital source of livelihood for farmers and pastoralists, competition for it became inevitable, quite often resulting in migration and potential conflicts. Equally, the reduced land size may also lead to land degradation resulting from the intensification of farming and livestock keeping. As Akov (2017) and Ntumva (2022) argue, this may prompt the movement of farmers or pastoralists in other fertile places while creating avenues for violent clashes between farmers and pastoralists. Second, the customary rights became less enforceable in courts, unlike the statutory rights that were open for claims in the courts (Boone 2015b, Ntumva 2022b). This state of affairs resulted in an inevitable loss of security for rural farmers and pastoralists, and this has been evidenced by periodic evictions and migration that has often resulted in clashes between these two land-user groups (Cleaver et al., 2013; Beyene 2016).

Later theorists recognise that scarcity is not necessarily an objective fact and that perceived scarcity can be as important as a driver of conflict (Kahl 2001; Peluso and Watts 2001; Adano et al. 2012). Much of their works have expressed concerns over the overestimated scarcity-conflict causality while perhaps the most underlying causal variables are being neglected. Adano et al. (2012) for example argue that what is simplistically seen as a scarcity causal variable in the conflicts involving farmers and pastoralists may be a reflection of the institutional failure and some external interference in the allocation and distribution of the commons. Part of Adano's justification is based on the northern part of

Kenya where conflicts occur even during the abundant season during which there is sufficient water and pasture for livestock. He indeed acknowledges that scarcity, particularly the one caused by drought, poses a risk for the conflicts. Nevertheless, this could only trigger conflict where there is a vacuum created by the institutional and political unpreparedness to put in place alternative water sources, grazing land, and inclusive rules and regulations for mutual governance of land and water, the vital resources needed by both farmers and pastoralists for their enhanced livelihood.

Perhaps one of the most significant contributions to the negation of these simplistic ideas of scarcity comes from Gareth Hardin and his theory of the tragedy of the commons. According to his theory, it is unsustainable management of the common pool resources (e.g. water, land and forest) that provides an opportunity for one party to exploit resources without restrictive rules while causing detrimental effects to the other party (Ostrom et al., 1999). Hardin, in (Moritz et al., 2013: 351), iterates that the urge for economic motive by an individual or groups of pastoralists to increase the size of their herds beyond repair on the same commonly held pasture land will be as equal to sharing the associated detrimental impacts of overexploitation with the rest of the commons users (pastoralists and farmers who also rely on the same commons). Detrimental impacts in this regard refer to the depletion and degradation of renewable resources (land, pasture and water) while creating a tragedy for all. As perceived in Homer-Dixon's environmental security thesis, degradation would, in turn, inhibit sufficient crop production, pasture and water leading to the demand and encroachment on each other's territory (farmers or pastoralists). As suggested by several scholarly articles, this has often triggered transhumance into new areas, competition and ultimately violent clashes between these two important land-use groups (Shettima and Tar 2008; Akov 2017; Tall 2018; Ntumva, 2022a). This theoretical enlightenment, therefore, contributes to the understanding of the insights of the underlying farmer-pastoralists causality as opposed to mere scarcity framings.

The political ecology narratives

As opposed to simple scarcity and the conflicts nexus there is another rich body of literature which examines how social structures contribute to the inequalities in

land resource access and ultimately to the increased risk of conflicts between farmers and pastoralists. The reason behind this examination is the increased concerns among scholars of various disciplines over what they perceive as an insufficient explanation by the environmental scarcity narratives over what causes resource conflicts (Van Leeuwen and Van Der Haar 2016; LeBillon and Duffy 2018) and more so farmer-pastoralist conflicts. For example, while the scarcity narratives have focused on population increase and degradation as the source of the conflicts (Homer-Dixon 1999; Kahl 2001), they have hardly accounted for how subsistence farmers and pastoralists are deprived of their rights to access to sufficient land and water by the structural aspects such as governance systems, social classes, identities and power relations. The main assumption by the theorists has been that these aspects have an obvious contribution to how resources are controlled and shared within the social systems, the examination of which enhances our understanding of the relevant dynamics that contribute to inequality and conflict over land resources between farmers and pastoralists.

Some of the recent theorists have centred their perspectives in the discipline of political ecology which has recently gained prominence as an alternative explanation of these conflicts. Some argue that conflicts occur because access to livelihood resources is mediated in whole or part by the structural conditions which are characterised by political and social inequalities (LeBillon and Duffy 2018). In other words, such characteristics become a source of exclusion/marginalisation of the weak groups from certain rights to resource access while creating conditions for induced scarcity and grievances among the weaker groups (Moritz 2010; Van Leeuwen and Van Der Haar 2016: 94; Walwa 2019). If we are to borrow this idea, we can, therefore, see that scarcity is a result of the underlying issues in the governance and access rights to land that are caused by the changing dynamics in the political and social relations across changing periods and contexts. This revelation is echoed by Homer-Dixon (1999) study which acknowledges political aspects of the society as the contributing factors for inequality and grievances in land access rights due to resource capture by the elites while marginalising the poor, who are in this case farmers and pastoralists. Although this latter perspective seems to depart from

earlier simplistic discourse of scarcity-conflict causality on the one hand, it enriches our understanding of how environmental aspects like climate change and drought interact with land access politics to produce scarcity, grievances and conflicts (Kahl 2001; Le Meur and Hochet 2010; Van Leeuwen and Van Der Haar 2016; Akov 2017).

More insightful discourses in the political ecology discipline have gone as far as de-constructing the scarcity-conflict linkage as one of the several manifestations of the identities, patronage and unequal power relations in the societal systems of resource access and control (Shettima and Tar 2008; Khadiagala and Mati 2011). Many studies have described these aspects as the contributing elements to injustices and inequalities in the access to resources between farmers and pastoralists. Such evidence is iterated in (Moritz 2010) study where pastoral ethnic identities (e.g. the Fulani) were given preferential treatment over farmers just because the government benefited much from livestock taxes and tributes. As this study further accounts, this move led to an even more influx of the Fulani pastoralists from Nigeria to Cameroon in the 20th century, while being given more power in terms of bargaining for the grazing commons at the expense of the poor farming ethnic identities. This situation where one ethnic identity is promoted over the other just because of differences in their liquidation capacities is what (Onyekuru and Marchant 2014; Walwa 2019) call social injustices and exclusion politics which they see as potential proliferators of grievances and escalation of the violent conflicts, particularly when the weaker groups have fewer opportunities to access livelihood resources.

Having been built on Marxist and some post-colonial conflict theories that draw from the social structures as influencing factors for the governance and distribution of the earth's environmental resources, political ecology enhances our understanding of how unequal power relations in those structures culminate in inequalities in resources access (Pichler and Brad 2016). It seems to provide an insightful analysis of land conflicts, particularly in the African context. This assumption comes from its increasing prominence in peace and conflict studies as an approach in the analysis of the power and social relations concerning the use of environmental resources (Schubert 2005); more importantly, how the social structure contributes to the

unfair distribution of burdens and benefits of the environmental changes, a situation which precipitates grievances and mobilisation for conflicts. One of the examples presented by LeBillon and Duffy (2018) focuses on the recent privatisation and enclosures of land that have led to the decrease of the customary common land used for subsistence farming and pastoralism. According to them, this is an indication where powerful land actors benefit at the expense of the weaker groups, more so under the favouritism of the state structural policies. Political ecology in this regard is seen as a useful approach in entangling the insights of the farmer-pastoralist conflicts as it gives a rich body of literature on how farmers or pastoralists – or both groups – are deprived of land rights.

In this regard, political ecology was employed in this article as a relevant framework for understanding social-environment conflicts, particularly in developing country contexts. In the course of the literature review, it became clear that political ecology encourages attention towards issues that are important but not addressed in other frameworks, especially about the analysis of past and current power relations. Through critical application in the analysis of stakeholder interviews, the research confirms the value of PE as a critical lens in environmental conflicts in three ways: first, it enhances a critical understanding of the societal discourses shaping resource access and conflict dynamics; second, it critically analyses how the communities perceive issues related to scarcity and competition; third, it provides an extra dimension into how environmental conflicts (farmer-pastoralist conflicts) become a function of social and structural processes of resource distribution as opposed to the environmental scarcities. Application of this lens therefore aims at enhancing stakeholders' understanding of the causes for various manifestations of the conflicts in question, with further aim of setting potential ground for meaningful conflict resolution and sustainable peace.

The context of the study area

This study focuses on the Kilosa district case mainly because of the uniqueness of the district in terms of its dynamics surrounding land conflicts, particularly between farmers and pastoralists, as compared to other districts in Tanzania. Conflicts in this area have been persistent and recurrent, and have a history that dates back to the era of land alienation by colonial

administrators in favour of settler plantations and the Mikumi Game Reserve (Benjaminsen et al. 2009). Alongside this idea is the fact that Tanzania's political economy of land conflicts differs from the rest of the East African countries, such as Kenya, because of the legacies of the Arusha Declaration and Ujamaa village policies adopted a few years after independence.

In the late 1960s, Tanzania introduced the Arusha Declaration which paved the way for the adoption of Ujamaa villagization policies in the 1970s. This policy led to the collectivization of people in Ujamaa villages (Ergas 1980; Ndagala 1982; O'Neill 1990). Part of what has been reported covers the reasons for the initiative as the need to transform the then scattered systems of farming and pastoralism into a sedentary system as a pathway to agricultural modernization (Benjaminsen et al. 2009). These policies were later replaced with neoliberal policies in the 1980s which led to the strengthened individual property rights, increased land grabbing and reclamation of the previously nationalized land (in response to Arusha declaration and villagisation policies)(Shivji 1998; Boone and Nyeme 2015). This was done at the expense of the customary tenure rights- and consequently the emergence of a new wave of land conflicts among various land stakeholder groups amongst which are farmers and pastoralists. This situation prompted a further series of land policy changes including the recent Land and Village Land Acts both of 1999 (Greco 2016; Greco 2017). However, despite the promising hope for these new land legislations to safeguard customary tenure rights, their practicability in many cases has raised concerns among scholars due to the continued existence of conflicts. Nevertheless, this context sheds light on how sociopolitical dynamics experienced by the Kilosa district and Tanzania in general have shaped the nature of farmer-pastoralist conflicts we see today. This study therefore attempts to unveil this and therefore a significant contribution to the literature on farmer-pastoralist conflict dynamics.

METHODOLOGY

This study draws on social constructionism philosophy where stakeholders' (farmers, pastoralists, and other actors) perspectives became the epicentre of the analysis and interpretation of the findings (Bryman, 2016; Creswell, 2013). This allows the public and other interested actors to gain insight into the dynamics

surrounding farmer-pastoralist conflicts and respective conflict management mechanisms regarding the case study in question. The study is built on qualitative research design where landscape mapping, in-depth interviews, focus group discussions and key informant interviews were used to collect data from targeted stakeholders including farmers, pastoralists, traditional leaders, and some office bearers to gain insight into

policy perspectives from the later. In this regard 64 farmers and pastoralists (32 in each case) were subjected to a landscape mapping exercise. Out of these, 44 participants (22 farmers and 22 pastoralists) were subjected to individual in-depth interviews. The remaining 20 participants were involved in 4 focus group discussions with 5 participants each (2 involving farmers only and the rest only pastoralists) (Table 1).

Table 1. Participants sampling distribution.

Data collection method	Number of participants	Nature of information sought	Stakeholders/ Villages involved	Remarks
Landscape mapping	64 (32 farmers, 32 pastoralists)	-Participants familiarization with research -Respective village's resource endowment and boundaries	All the four villages, each contribution 16 participants	Landscape mapping was conducted to only familiarize potential participants on their environment and nature of research to prepare them for effective and informed participation in subsequent interviews
In-depth interviews	44 (22 farmers, 22 pastoralists)	-Background on farmer-pastoralists conflicts -Perceived causes of farmer pastoralist conflicts	All four villages, each contributing 11 participants	Both males and female participants were proportionally involved
Focus group discussion	20 (10 farmers, 10 pastoralists)	-Background on farmer-pastoralists conflicts -Perceived causes of farmer pastoralist conflicts	1 Focus group discussion in each of the four villages with 5 participants each	Both males and females' participants were proportionally involved
Key informant interviews	7	-Perceived causes of farmer-pastoralist conflicts from policy and institutional perspectives -Conflict management mechanisms and associated challenges	-District executive director -2Traditional leaders - District agricultural officer -District livestock officer -District police commander -District residential magistrate	

All these data collection processes were carried out in the context of a carefully chosen case study- the Kilosa district, particularly two farmers' villages (Mfuru and Kilangali) and two pastoralists' villages (Kiduhi and Mabwegere). Research ethics involving getting access through gatekeepers, consent seeking, insurance of

anonymity and confidentiality were adhered to throughout the fieldwork and subsequent data handling. Collected data from in-depth interviews, focus group discussions and key informant interviews were thematically analysed. This involved reading data transcripts repeatedly to establish patterns that were

latter converted into themes which were then interpreted and discursively discussed. On the other hand, landscape mapping was only used to bring potential participants together to brainstorm on their village boundaries and resource endowment. The aim was to make them familiar with and informed of their environment for them to be able to participate effectively in subsequent interviews.

The case study was chosen due to its higher incidence of farmer pastoralist conflicts in Tanzania following evidence revealed through prior situation analysis, media reports and personal experience. As reported by Benjaminsen et al. (2009), clashes between farmers and pastoralists in Mbuyuni ward in 2000 led to 38 fatalities with several others wounded. Equally, Rweyemamu (2019) reports about periodic clashes between farmers and pastoralists on the one hand, pastoralists and government authorities on the other hand and pastoralists and investors on the extreme hand following encroachment of their grazing land and forceful evictions. In broadening, reinforcing, and enhancing checks and balances relevant documents (official statistics, reports, policy documents and statutory documents) were solicited and reviewed. The whole process culminated with thematic analysis and interpretation of collected data. Where the need arises, some narrative and discourse analysis and interpretation were employed to reinforce the credibility of the findings.

RESULTS AND DISCUSSION

As opposed to the theoretical and policy discourses linking farmer-pastoralist conflicts with the lone scarcity of environmental resources in Africa, the findings about the Kilosa district case reveal that this linkage has increasingly been overemphasised. There is indeed significant evidence indicating how drought, demographic surge and resource degradation have been contributing to the scarcity of wetlands, water, and pasture in Kilosa, nonetheless, these findings go as far as signifying some structural factors that have been underlying these conflicts.

Reinforcing this revelation is the widely disclosed legacy of the land tenure regime tracing back from colonial through post-independent eras that have contributed to unfair land accessibility, dispossession, and evictions, with farmers and pastoralists being the most vulnerable actors.

As revealed by the stakeholder interviews, this legacy has been the source of many land policies that have been exposing farmers and more so pastoralists to marginalised lands under the guise of investment and wildlife conservation. It is through this marginalisation that pastoralists have reportedly been exposed to environmental shock while also being deprived of access to available wetlands and water sources. In this regard, environmental or climate change comes in as a secondary factor to exacerbate the already existing structural-driven inequalities into further scarcity and potential violent conflicts. This revelation confirms earlier broader political ecology narratives emphasising that farmer-pastoralist conflicts in Africa are a product of the interacting environmental scarcities and structural factors and are shaped by a given socio-political context (Adano et al. 2012; Homer-Dixon 1999). This concludes that farmer-pastoralist conflicts in Kilosa district are caused by the interaction of this set of factors though structural scarcities appear to play a significant role as exhibited by the enormously enclosed lands for private investors and wildlife conservation as detailed below.

For instance, wider stakeholder perspectives suggest that land scarcity in the district has been attributed to vast sisal plantations, expansion of conservation and speculative land enclosures. This sentiment is shared by the official documents indicating the privatisation of NARCO ranches and the introduction of a recent sugar plantation in Mbigiri village. While this has been justified under the guise of economic development and tourism growth (Walwa 2019; Bluwstein et al., 2018), critical examination suggests that this has been done at the expense of farmers' and pastoralists' interests in land resources. The obvious implication following this situation is the increased loss of customary tenure security many farmers and pastoralists have been relying on and therefore competition and potential conflicts between them.

More significantly, this revelation reflects but also confirms earlier narratives locating such conflicts in Tanzania in the context of the colonial, Ujamaa villagisation and liberalised land legacies that have been prioritising the state, parastatal, and private land interests (Bluwstein et al., 2018). Subsequently, in what appears to be echoed in the global discourse on modernisation (Walwa 2019; Benjaminsen et al., 1999), the space for the protection of indigenous

rights/interests in land resources has increasingly been diminishing. This informs us that many farmer-pastoralist conflicts in Kilosa district can be traced from the legacy of this broader discourse situation implying an increased loss of stakeholder power (farmers and pastoralists) and domestic/international forum for negotiating indigenous land interests.

Nevertheless, it is still interesting to learn how the government has been attempting to address farmer-pastoralist conflicts through villagisation as per stakeholder interviews. However, the apparent failure to even lessen these conflicts, especially in Kilosa district which resettled pastoralists in eight villages, may still raise further scrutiny of their relevance. A critical examination of the case study alongside the documentary review, physical observation and interviews on why this was the case in the district reveals the following: first, pastoralists' village settlements were allocated far away from wetlands and water points which means they could hardly access reliable pasture and water particularly when drought seasons intensify scarcity in their villages; second, while the alternative pathways could have been to establish and maintain reliable infrastructures, such as dams, drinking points, access routes (to rivers) and dips, the findings suggest otherwise that this has hardly been the case, and those that exist are in a dilapidated state.

For example, while a few dams existed in Kiduhi and Mabwegere villages, they were not in good enough condition to sustain the livestock water needs all year long – a situation which reinforces Fratkin's (1997; 2014) account of some farmer-pastoralist conflicts to have been attributed by the dilapidated infrastructures in pastoral areas. One of the notable implications is the outward movement of the pastoralists into other villages within Kilosa district or outside where they have led to trespasses, a sentiment equally echoed by Walwa (2019) in the case of farmers' wetlands, and Bluwstein (2018) in the case of the protected wetlands. This situation underscores political ecology narratives linking farmer-pastoralist conflicts and the legacy of Ujamaa villagisation. In a broader context, this is a confirmation of Bluwstein et al. (2018) account of the legacy of the colonial era through Ujamaa villagisation to land liberalisation policies on land conflicts in Tanzania. Though revealed not to be that significant in addressing farmer-pastoralist conflicts, the legacy of Ujamaa villagisation that has shaped these conflicts provides a

unique dimension to the dynamism of the conflict in Kilosa and Tanzania. This brings in a new contribution to farmer-pastoralist conflict literature that is currently dominated by non-socialist cases, such as Nigeria, Sudan and Kenya.

The findings also reveal that there has been an influx of land buyers into both farmer and pastoralist villages. While some of the deals were reportedly done through unscrupulous state, district, and village officials, some were reportedly done based on willingness, where farmers became consciously involved. Nevertheless, both situations seem to have contributed to the increasing land scarcity along with the surging populations, migration, and increased number of livestock in the villages. This situation implies and also confirms two political ecology narratives as follows: first, unfair involvement of the officials in allocating/facilitating the buying of the village lands contrary to the legal procedures stipulated in the Village Land Acts of 1999, confirming the concerns of Benjaminsen et al. (2009) on the likelihood of corrupt deals as part of the significant factors in increased land scarcity and conflicts; second, the lack of sustainable livelihood alternatives driving farmers to sell their land despite the enormous size of their families depending on it. This situation confirms Swinton et al. (2003) narrative linking poverty to increased land scarcity and farmer-pastoralist conflicts. On a broader scale, both situations are located within the context of increased land formalisation that has eased transactions and subsequently increased insecurity of the customary tenure (Boone, 2019).

The role/capacity of the state in shaping resource conflicts

The interviews conducted indicate that the state's role/capacity in shaping resource conflicts appears to be ambivalent. There is evidence of the state enacting laws and implementing policies that are indeed consequential – a situation indicating its continued power – but also there are clear limits to state influence (indicated by the capacity of the external pressure/groups to act outside despite the state). As per the literature and participants' interviews, this capacity is traced back to the colonial period where the state was fully responsible for the successive land policies that led to the changing dimensions in land use that have benefited some of the groups while disadvantaging others.

The focus here is not to discredit the power of such laws and policies in transforming the country's development in terms of agriculture, livestock keeping and tourism, but to highlight how their implementation has explicitly or implicitly contributed to the land problems we see today. One such evidence is drawn from the notable stakeholder concerns on increased loss of natives' land for investment, conservation and speculation following the state's hegemonic influence on land tenurial issues that date back from colonial to current liberalised land-tenure systems. As confirmed by Bluwstein et al. (2018), the state's power over land-tenure policies, starting from the colonial through Ujamaa villagisation to the recent liberalised land policies, is ample evidence that informs many of the land scarcities and conflict dynamics that exist today, although this does not rule out its notable contribution to strengthened tenure rights and noble investments in agriculture, mining and wildlife tourism. For instance, the state has regularly been reforming regulations, such as the wildlife conservation acts, vesting powers to the respective authorities, such as respective ministers and Tanzania National Park Authority (TANAPA) (Bluwstein et al., 2018; Neumann 1997). Presumably, these regulations aim not only to protect wildlife but also to raise income through tourism, which is an appreciable undertaking and a vivid exhibition of the role/power/capacity of the state to protect the national interests. However, these same regulations contradict the village land regulations empowering the local farmers and pastoralists over matters related to the village land as protected lands (URT, 1999b). One such concern is the reported progressive extension of Mikumi National Park into neighbouring villages (interviews) in Kilosa district – a situation that implies a significant transformation in the livelihood systems of farmers and pastoralists in those areas. We can therefore see that conflicts might arise out of such contradictory powers or implementation strategies that ignore the interests of the other groups, particularly those of the farmers and pastoralists who are the main commons users.

The power of the state in influencing land-resource governance is again manifesting in enacting devolution policies aiming at, among other things, empowering the village communities in deciding land-governance matters through elected village representatives. Critical examination of interview perspectives reveals the existence of such powers as land has reportedly been

accessed through the village administrations and that security of tenure was relatively highly guaranteed through such an arrangement. As reinforced by Pedersen (2012) and Collins (2018) and echoed by the Village Land Act of 1999b (URT, 1999b), it is indeed true that devolution aimed to empower communities in decision-making on how land should be governed and utilised. While this sounds appealing for alleviating land-related problems – and indeed these decisions have reportedly received significant recognition among stakeholders – a few raised concerns over the village leaders' malpractices and interference from the district and politicians seemed to undermine this recognition accorded to the state. This also confirms Pedersen's (2012) concerns over the implementation of decentralised land governance where village leaders have practically remained accountable to top administrations instead of benefiting communities. This suggests that while many of the state regulations/policies governing land regulations may get legitimacy among beneficiary communities, it is highly likely that discrepancies in implementations do potentially downplay this legitimacy and portray the state as inept instead.

For instance, some of the expressed concerns drawn from interviews involve the unilateral land transaction deals between investors/speculators/elites and village authorities despite the 1999 village land provisions emphasising that any such undertakings should gain prior approval from the village assemblies. Critical examination of the participants' perspectives also shows increased concerns by the village leaders over the top-down orders from the district, regional or state level authorities directing/deciding about which individual/firms should a particular size of land be allocated to the contrary to the stipulated procedures. Once again, this situation reinforces the highlighted claims in the literature where effectiveness in decentralised land governance systems has hardly been achieved due to such discrepancies among others (Pedersen 2012; Collins 2018). This situation potentially makes farmers and pastoralists perceive the state as inept in terms of implementation and enforcement of its regulations and policies because of the following implications: first, people are increasingly becoming landless; second, some resort to rented land spaces – ending up with an increased cost of production. Worse, is the increased amount of farmers' encroachment into

pastoralist grazing land and vice versa – resulting in heightened tensions and conflicts between farmers and pastoralists.

Equally, widely shared interview perspectives highlight several state institutions responsible for land governance and direct conflict management, such as the local district administration (DC), the district local authorities (the council), the court, the police and the village administrations. The presence of these institutions, which have been engaged in land governance and management of the related conflicts through peace negotiations, and adversarial and litigation systems, exhibits the power and capacity of the state in farmer-pastoralist conflict management in the district. For instance, interview perspectives indicate that farmers and pastoralists have been increasingly choosing state institutions over the local mechanisms when it comes to land-conflict management while referring to the traditional mechanisms' lack of legal binding in the current socio-political dynamism. This situation suggests that the government institutions have been receiving legitimacy among communities when fair and just procedures and rulings are adhered to – a situation promising communities' continued support of state processes and procedures.

The role/capacity of local leadership in shaping resource conflicts

While the socio-political history of the case study indicates that land has previously been governed by traditional institutions, examination of the interview perspectives suggests that the current governance is under the local institutions that represent the state at the local village administrations. This means land allocation and related conflicts are respectively controlled and managed through the elected/appointed village leaders, unlike in the past where traditional institutions had a major role to play. This sentiment has been reinforced by the Village Land Act of 1999 which entrusts the village administrations through decentralised structures when it comes to land allocation and related conflict matters. This implies that the state is virtually represented by the local governance institutions – a situation implying the increased consolidation of the state power in land governance and conflict management in the villages. However, whether this transformation reflects the improved response to the communities' land governance needs or just what Lal

(2015) purported to be the need to consolidate the political power in the village still needs further discussion.

Although this transformation implies the declining power/role of the traditional institutions, the presence of the state in local governance arrangements appears relevant for coping with the current dynamics of resource conflicts that are shaped by strengthened individual property rights. However, this situation implies a dichotomous but ambivalent situation. First, strengthened local institutions that are responsive to the community needs and hence an increased state of legitimacy among the community when it comes to land governance and conflict management matters. Second, the decreased power of the communities to make their own choices and priorities over land governance and conflict resolution due to an increased risk of upward accountability – a situation confirmed by interview perspectives to exist in Kilosa district.

What is perhaps causing the ambivalent situation is how these local institutions have been balancing the needs/interests of the communities (farmers and pastoralists) and the interests of the state on land governance affairs. As Pedersen (2012) poses it, although deliberate efforts have been made under the decentralised systems to make these leaderships responsive to the needs of farmers and pastoralists in the villages, respective institutions have increasingly been upwardly accountable to the state. The threat here is an increased response to the state needs/interests and pressures at the expense of the interests of the farmers and pastoralists – a situation posing the risk of decreasing confidence in and legitimacy of the functionality of local institutions.

For example, an examination of the pastoralists' responses shows that over the decades they have had their traditional systems of range management which have been adaptive to the scarcity dynamisms which are governed by traditional leaders/elders. Surprisingly, this system was hardly reflected in and recognised by the village administration set-up as many of their functions are state-controlled. One of the vivid evidence is the replacement of this system with state-controlled programs such as VLUP, though often manifesting virtually through local village administrations. This has resulted in land-use zoning, including setting land aside for wildlife management areas (WMA) which have curtailed the size of the farming and grazing lands in

respective villages, with traditional power moved to community-based organizations (CBOs), which are responsive to the village administrations. This state of affairs reinforces Bluwstein et al.'s (2018) account of the role VLUPs and WMAs have played in curtailing the village lands while the administration powers coming from other vested institutions, such as TANAPA – in the case of the WMAs and TIC – in the case of land set aside for investment. While the local village administration may be relevant in responding to the communities' needs regarding land governance and conflict management, the seeming erosion of the traditional role caused by the increased presence of the state-powered institutions undermines the valuable contribution the traditional institutions might offer in governance, peace-making and broader representation of local needs and priorities.

Unlike the local colonial land-use governance arrangements, the introduction of the village administration saw the remarkable transformation of the traditional leadership to the elected state village administrations (Lal, 2015). Within the newly introduced villagisation land-use setting, the role of the traditional leaders seems to have been shifted to the elected village officials who continue to exercise power over land governance and allocation as virtual representatives of the state. This state of affairs implies that when it comes to making choices/decisions between the interests of the state and communities, there is a likelihood that the state will be preferred most, as being the government virtue agencies (village administrations), they have to make sure that the interests of the state regarding land-use priorities are met in the first place. This reinforces the earlier claim in the literature branding Ujamaa villagisation as just the means to consolidate political powers aiming, among other things, to fulfil the interests of the state (Lal, 2015; Shivji, 2008). Moreover, this implies the decreased power of the traditional governance systems and consequently less prioritised traditional land-use interests the farmers and pastoralists used to enjoy.

Political ecology (PE) role in focusing on societal discourses shaping resource allocations

With a political ecology lens of stakeholder perspectives and literature the article has been able to reveal a significant linkage between the modernisation theories and existing farmer-pastoralist conflicts (Peters, 2013;

Maganga et al. 2016). This means that looking into the insight of the conflict dynamics in the case study would require a critical examination of this linkage regarding the pre-emptive development narratives scholars like Walwa (2019) present as causes for the exclusion of other groups from their right to resources. One such narrative the PE lens has managed to reveal, and which circulates among farmers, politicians and even policymakers, focuses on branding pastoralists as primitive and that their mobile production system is environmentally destructive. This narrative has been justified by the farmers' broadly shared view that pastoralists have been invading and degrading their land and, more importantly, inciting violence with farmers in Kilosa.

While such a narrative may just be taken lightly by other frameworks, the PE lens goes as far as analysing it about the socio-political dynamics causing imbalances in resource distribution. For instance, much as many policy discourses do support farmers at the expense of the pastoralists (Benjaminsen, 2009), it becomes clear that narratives disadvantaging pastoralists aim to: first, reinforce the already existing biased policies; second, justify the exclusion of the pastoralists from access to sufficient livelihood resources. In this regard, the PE lens helps us to understand that farmer-pastoralist conflicts are somewhat resulting from exclusion policies which are traced/embedded in the pre-emptive rhetoric that has been disregarding the pastoralists' rights to resources. This revelation confirms Walwa's (2019) account of how such discourses have bred what he calls licensed exclusion of the pastoralists from their right to resources. On a broader scale, this situation reinforces many of the political ecology perspectives viewing these conflicts from the dimension of the global quench for land liberalisation (Walwa 2019; Bluwstein et al., 2018) that has trickled into censored land access rights between farmers and pastoralists – with pastoralists being mostly disadvantaged.

Using the PE lens in examining the literature and interview findings reveals the understanding that liberalised economies not only contrast pastoralists' mobile production but also fragmented holdings practised by smallholder subsistence farmers. This contrast arises out of the fact that while liberalised land access involves legalised property rights and enclosures (Boone, 2019; URT, 1999a), subsistence farming and mobile pastoralism are communally based where

everyone has the right to unlimited access to the commons (Hardin, 1968). This implies that the growing dominance of the former, which is revealed to be the case in Kilosa, has increasingly been paving the way for the potential tenure insecurity of the commons. This viewpoint is unsurprisingly reinforced by the overwhelming stakeholder concerns about the increased exposure of the commons to predation with grazing commons being affected the most. From the political ecology lens, therefore, we come to understand that this is the question of the power difference existing between liberalised properties that are statutory protected against non-statutory customary ownership that has been at the epicentre of scarcity and conflicts.

Further examination of the stakeholder interviews using the PE lens has helped to unveil further narrative branding pastoralists as strangers which means they were supposedly not entitled to land resources. Critical analysis of this narrative from the PE dimension helps to reveal that this is not just stranger-native rhetoric. Rather, it is a reflection of the widening social cleavage between farmers (perceiving themselves as natives) and pastoralists (perceived to be strangers) attributed to a paradigm shift within which the two groups attempt to consolidate their dominance on access to scarce resources. This sentiment is reinforced by another PE sentiment positioning this stranger-native narrative in the context of the structural inequalities and more so the powers of identities in shaping resource access (Alao, 2007; Moritz, 2006) that are consciously or unconsciously aiming at excluding other groups to minimise competition for the meagre resources. We come to the insight that with the pastoralists appearing to be the target of these narratives, the pastoral livelihood system has been in constant jeopardy, and worse, with little concern for the governing authorities at the village, district and state levels. The PE lens in this regard contributes to explaining why pastoralists have been resorting to violence as an alternative way of having access to much-needed livelihood resources and in an attempt to make their voices heard by responsible authorities.

In parallel to the stranger-native narrative, the PE lens helps to explain why pastoralists are labelled by farmers as aggressive, contemptuous and violent, and what this implies for conflicts between these two groups. Although this narrative was revealed to have been shared by the district state authorities, such as council officials, police

and magistrates during interviews, and confirmed by Benjaminsen et al. (2009) to have been shared by the mainstream media in Tanzania, the application of critical PE analysis reveals that perhaps the most important thing is the reason behind this scenario. Examination of empirical findings reveals that, indeed, youth pastoralists have been the target of the police and DCs whenever there is any escalation of violence, presuming that they are the potential inciters of the conflicts – an assumption reinforced by their long-held tradition of being armed all the time. What is perhaps being overlooked – which the PE lens might usefully contribute to explain – is what underlies this aggressiveness and contemptuous behaviour occurring while attempting to access the much-needed resources as shown hereunder.

The study learns that pastoralists in the district are the minority. Looking at this from the PE of power dimensions it becomes evident that being the minority, coupled with their mobile production nature, denies them opportunities to take part in political administrations such as councillors or members of parliament. This implies a lack of their voices in the policy corridors – with a subsequent implication that most of their concerns related to access to land resources, such as pasture and water, were hardly receiving any critical attention. Examining this sentiment in a broader perspective of power and socio-political dimensions using the PE lens, it comes to light that there is a greater connection between what pastoralists are facing on the ground and global discourses promoting agriculture at the expense of mobile pastoralism. This sentiment confirms Walwa's (2019) and Benjaminsen et al.'s (2009) accounts for the increased undermining of mobile pastoralism under the justification of being environmentally destructive and economically inviable. We can therefore see that only the PE lens enables us to get into this insight, unlike other linear-based frameworks such as environmental security theory. A typical case can be found in an empirically noted government-facilitated irrigation infrastructure along the Myombo River, benefiting rice and vegetable farmers in Kilangali ward while doing little to invest in pastoralists' infrastructures, such as sustainable dams in the nearby Kiduhi village. Thus, in a situation where the pastoralists lack the much-needed livelihood resources, it becomes unsurprising to exhibit unusual behaviour in an attempt to enhance their survival on the one hand

and voicing the abnormalities in resource distribution on the other hand. The PE lens enables us to conclude that the pastoralists' aggressive and contemptuous behaviour in this context becomes not only about their culture but also a manifestation of the underlying socio-political dimensions causing scarcity and double standards in facilitating access to the contested resources.

CONCLUSION

The study has, to a greater extent, reinforced, but in other circumstances contrasted, earlier environment security and political ecology narratives on farmer-pastoralist conflict dimensions and, more importantly, how these dimensions have contributed to resource access inequalities and consequently farmer-pastoralist conflicts. In addition to revealing the extent of the intertwinement of these theories/narratives and conflicts, the study reveals new contextual dimensions of Kilosa district and Tanzania that have potentially shaped the nature of conflicts and resolution experiences uniquely from most other African countries– and therefore an achieved significant milestone in contributing to the political ecology literature on farmer-pastoralist conflicts. Features being referred to here, involve among others the legacy of colonialism and post-colonial Ujamaa villagisation policies with particular emphasis on how they created patterns of land distribution inequalities – revealed by this study to have largely contributed to the existing farmer-pastoralist conflict dynamics. Having been portrayed as complex and multidimensional, the study informs broader policy-making bodies and land conflict actors that there is no straightforward approach for addressing a particular cause of the conflicts. In this case, integrated approaches involving a plurality of response mechanisms depending on an existing socio-political context are much more recommended.

The study recommends continuous involvement of grassroots communities, sectoral policy bodies (from both local and central government), farmer and pastoralist organizations, NGOs (local and external) and broader multinational organizations (due to their policy influences). This arrangement aims to strengthen collaboration in identifying contested needs, determining areas of contradiction, and suggesting a relevant framework for resource access and conflict management to inform the policy-making bodies.

REFERENCES

- Adano, W. R., Dietz, T., Witsenburg, K. and Zaal, F. 2012. Climate change, violent conflict and local institutions in Kenya's drylands. *Journal of peace research*, 49 (1): 65-80.
- Ajibo, H.T., Onuoha, E.C., Obi-Keguna, C.N., Okafor, A.E. and Oluwole, I.O. 2018. Dynamics of Farmers and Herdsmen Conflict in Nigeria: The Implication to Social Work Policy Intervention. *International Journal of Humanities and Social Science*, 8(7):157-163.
- Akov, E. T. 2017. The resource-conflict debate revisited: Untangling the case of farmer–herdsman clashes in the North Central region of Nigeria. *African Security Review*, 26 (3): 288-307.
- Alao, A. 2007. *Natural resources and conflict in Africa: the tragedy of endowment*. USA: University of Rochester Press.
- Benjaminsen, T. A. and Boubacar, B. 2021. Fulani-Dogon killings in Mali: Farmer-Herder Conflicts as Insurgency and Counter insurgency. *African Security*, 14(1): 4-26.
- Benjaminsen, T. A., Maganga, F. P. and Abdallah, J. M. 2009. The Kilosa killings: Political ecology of a farmer–herder conflict in Tanzania. *Development and Change*, 40 (3): 423-445.
- Bernauer, T., Böhmelt, T. and Koubi, V. 2012. Environmental changes and violent conflict. *Environmental Research Letters*, 7(1): 015601.
- Beyene, F. 2016. Land use change and determinants of land management: Experience of pastoral and agro-pastoral herders in eastern Ethiopia. *Journal of arid environment*, 125: 56-63.
- Biddulph, R. 2018. The 1999 Tanzania land acts as a community lands approach: a review of research into their implementation. *Land use policy*, 79:48-56.
- Bluwstein, J., Jens, F.L, Askew, K., Stein, H., Noe, C., Odgaard, R., Maganga, F. and Engström, L. 2018. Between dependence and deprivation: The interlocking nature of land alienation in Tanzania. *Journal of agrarian change*, 18: 806–830.
- Boone, C. 2015b. Land tenure regimes and state structure in rural Africa: implications for forms of resistance to large-scale land acquisitions by outsiders. *Journal of Contemporary African*, 33 (2): 171-190.

- Boone, C. 2019. Legal empowerment of the poor through property rights reform: Tensions and trade-offs of land registration and titling in sub-Saharan Africa, 55 (3): 384-400.
- Boone, C. and Nyeme, L. (2015) Land institutions and political ethnicity in Africa: evidence from Tanzania. *Comparative Politics* 48 (1), 67-86.
- Bryman, A. 2016. *Social research methods*. Fifth edition. United Kingdom: Oxford university press.
- Cleaver, F., Franks, T., Maganga, F. and Hall, K. 2013. Institutions, security, and pastoralism: Exploring the limits of hybridity. *African Studies Review*, 56 (3): 165-189.
- Collins and Mitchell. 2018. Revisiting the World Bank's land law reform agenda in Africa. The promise and perils of customary practices. *Journal of Agrarian Change*, 18:112-131.
- Creswell, J. W. 2013. *Qualitative inquiry and research design: Choosing among five approaches*. 3 edition. London: Sage publication Inc.
- Ergas, Z. 1980. Why did the Ujamaa village policy fail?—Towards a global analysis. *The Journal of Modern African Studies*, 18 (03): 387-410.
- Falant, E.M. and Bengesi, M.K. 2018. Drivers and consequences of recurrent conflicts between farmers and pastoralists in Kilosa and Mvemeru districts, Tanzania. *Journal of sustainable development*, 11(4): 13-26.
- Fratkin, E. 2014. Ethiopia's pastoralist policies: development, displacement and resettlement. *Nomadic Peoples*, 18(1): 94-114.
- George, J., Adelaja, A., Awokuse, T., Vaughan, O. 2021. Terrorist attacks, land resource competition and violent farmer-herder conflicts. *Land use policy*, 102: 1-12.
- Greco, E. 2016. Village land politics and the legacy of ujamaa. *Review of African Political Economy*, 43 (sup1): 22-40.
- Greco, E. 2017. Farmers or Squatters? Collective Land Claims on Sisal Estates, Tanzania (1980s–2000s). *Journal of Agrarian Change*, 17(1): 166-187
- Hardin, G. (1968) The tragedy of the commons. *Science* 162, 1243-1248.
- Home, R. 2021. History and prospects for African land governance: institutions, technology, and land rights for all. *Land*, 10(292):1-18.
- Homer-Dixon, T. 1999. *Environment, Security, and Violence*. New Jersey: Princeton University Press.
- IFAD, 2014. Investing in rural people in the united republic of Tanzania. Rome: <https://www.ifad.org/documents/10180/feb514f1-a0d2-4111-8d98-50be8ddd0184> Accessed 28/11/2016.
- IWGIA, 2015a. Ethnic violence in morogoro region in Tanzania. Copenhagen, Denmark: International Work Group for Indigenous Affairs. http://www.iwgia.org/iwgia_files_publications_files/0714_Briefing_Note_Violence_in_Morogoro_Tanzania.pdf Accessed 01/10/2016.
- Kahl, C. 2001. *Violent Environment* by Nancy Lee Peluso and Michael Watts (Eds.). Book review. New York: Cornell University Press.
- Kalabamu, F. T. 2019. Land tenure reforms and persistence of land conflicts in Sub-Saharan Africa—The case of Botswana. *Land Use Policy*, 81: 337-345.
- Khadiagala, G. M. and Mati, J. M. 2011. Migration and global environmental change In PDII: Conflict management mechanisms in resource constrained African communities University of Witwatersrand, Johannesburg, South Africa. UK Government foresight.
- Krätli, S. and Toulmin, C. 2020. Farmer-herder conflicts in sub-Saharan Africa? IIED, London. from <http://efaidnbmnnnibpcajpcgclefindmkaj/http://www.iied.org/sites/default/files/pdfs/2021-01/10208IIED.pdf>.
- Lal, P. 2015. *African Socialism in Postcolonial Tanzania*. United Kingdom: Cambridge University Press.
- Le Meur, P.-Y. and Hochet, P. 2010. Property relations by other means: conflict over dryland resources in Benin and Mali. *The European Journal of Development Research* 22 (5), 643-659.
- LeBillon, P. and Duffy, R. 2018. Conflict ecologies: connecting political ecology and peace and conflict studies. *Journal of Political Ecology*, 25 (1): 239-260.
- Maganga, F., Askew, K., Odgaard, R. and Stein, H. 2016. Dispossession through formalization: Tanzania and the G8 land agenda in Africa. *Asian Journal of African Studies*, 40: 3-49.
- Matondi, P. B., Havnevik, K. and Beyene, A. 2011. Introduction: biofuels, food security and land

- grabbing in Africa. In Matondi, P. B., Havnevik, K., and Beyene, A. (editors) *Biofuels, food security and land grabbing in Africa* London: Zed Books.
- Moritz, M. 2006. Changing contexts and dynamics of farmer-herder conflicts across West Africa. *Canadian Journal of African Studies/La Revue canadienne des études africaines*, 40 (1): 1-40.
- Moritz, M. 2010. Understanding herder-farmer conflicts in West Africa: Outline of a processual approach. *Human Organization*, 69 (2): 138-148.
- Moritz, M., Scholte, P., Hamilton, I. M. and Kari, S. 2013. Open access, open systems: pastoral management of common-pool resources in the Chad Basin. *Human Ecology*, 41(3): 351-365.
- Ndagala, D. K. 1982. 'Operation Imparnati': The Sedentarization of the Pastoral Maasai in Tanzania. *Nomadic Peoples*, (10): 28-39.
- Neumann, R. 1997. Primitive ideas: protected area buffer zones and the politics of land in Africa. *Development and Change*, 28 (3): 559-582.
- Neumann, R. P. 1995. Ways of seeing Africa: colonial recasting of African society and landscape in Serengeti National Park. *Cultural geography*, 2(2): 149-169.
- Nwankwo, C.F. 2019. Essentializing critical geopolitics of the farmers–pastoralists conflicts in West Africa. *GeoJournal*, <https://doi.org/10.1007/s10708-019-10023-3>.
- Ntumva, M.E. 2022a. Land conflict dynamics in Africa: A critical review on farmer-pastoralist conflict perspectives. *International Journal of Peace and Development Studies*, 13(1): 17-28.
- Ntumva, M.E. 2022b. Farmer-pastoralist conflicts management approaches in Sub-Saharan Africa: Insights into their strengths and pitfalls. *Journal of African Studies and Development*, 14(1):12-26.
- O'Neill, N. and Mustafa, K. 1990. *Capitalism, socialism and the development crisis in Tanzania*. Avebury
- Ostrom, E., Burger, J., Field, C. B., Norgaard, R. B. and Policansky, D. J. s. (1999) Revisiting the commons: local lessons, global challenges. *Science's compass review*, 284 (5412): 278-282.
- Pedersen, R. H. 2012. Decoupled Implementation of New-Wave Land Reforms: decentralisation and local governance of land in Tanzania. *Journal of Development Studies*, 48 (2): 268-281.
- Peluso, N. L. and Watts, M. 2001. *Violent environments* Ithaca and London: Cornell University Press.
- Peters, P. E. J. A. A. 2013. Conflicts over land and threats to customary tenure in Africa. 112 (449): 543-562.
- Pichler, M. and Brad, A. 2016. Political ecology and socio-ecological conflicts in Southeast Asia. *ASEAS-Österreichische Zeitschrift für Südostasienwissenschaften*, 9 (1): 1-10.
- Rweyemamu, D.R. 2029. Understanding the factors leading to conflicts among agropastoralists and farming communities in Morogoro region, Tanzania and their implications for wellbeing. PhD dissertation, Lincoln University.
- Schubert, J. 2005. *Political ecology in development research. An introductory overview and annotated bibliography*. 2nd edition (2005). Bern, Switzerland: NCCR North-South.
- Shettima, A. G. and Tar, U. A. 2008. Farmer-pastoralist conflict in West Africa: exploring the causes and consequences. *Information, society and justice journal*, 1(2): 163-184.
- Shivji, I. G. 1998. *Not yet democracy: reforming land tenure in Tanzania*. London: International Institute for Environment and Development (IIED), HAKI ARDHI and the Faculty of Law at the University of Dar es Salaam.
- Soeters S, Weesie R. and Zoomers, A. 2017. Agricultural investments and farmer-fulani pastoralist conflict in West African drylands: A northern Ghanaian case study. *Sustainability*, 9: 2063.
- Swinton, S. M., Escobar, G. and Reardon, T. 2003. Poverty and environment in Latin America: concepts, evidence and policy implications. *World development* 31 (11): 1865-1872.
- Tade, O and Yikwabs Y.K 2020. Conflict triggers between farming and pastoral communities on Nasarawa State, Nigeria. *Journal of Aggression Conflicts and Peace Research*, 12(3):101-114.
- Tall, O. 2018. Herders vs farmers: Resolving deadly conflict in the Sahel and West Africa. OECD. <http://oecdinsights.org/2018/04/16/herders-vs-farmers-resolving-deadly-conflict-in-the-sahel-and-west-africa/>, accessed on 03/10/2019.
- URT, 1999b. *The village land act of 1999 of Tanzania*.

- URT, 2010. United Republic of Tanzania. Ministry of agriculture, livestock and fisheries. Agricultural statistics. <http://www.kilimo.go.tz/agricultural%20statistics/agricultural%20statistics.htm> Accessed 28/11/2016.
- Van Arkadie, B. 2016. Reflections on land policy and the independence settlement in Kenya. *Review of African Political Economy*, 43 (sup1): 60-68.
- Van Leeuwen, M. and Van Der Haar, G. 2016. Theorizing the land-violent conflict nexus. *World Development*, 78: 94-104.
- Walwa, W. J. (2019) Growing farmer-herder conflicts in Tanzania: the licenced exclusions of pastoral communities interests over access to resources. *Journal of peasant studies*, 47(2): 366-382
- Watts, J. 2018. Maasai herders driven off land to make way for luxury safari, report says: Tanzanian government accused of putting indigenous people at risk in order to grant foreign tourists access to Serengeti wildlife. *The guardian*, 10/05/2018, <https://www.theguardian.com/environment/2018/may/10/maasai-herders-driven-off-land-to-make-way-for-luxury-safaris-report-says> Accessed 27/06/2018.

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