Climate change and conflict through the lens of Political Ecology: a case study of the farmer-herder conflict in Laikipia, Kenya
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Master Thesis

Climate change and conflict through the lens of Political Ecology: a case study of the farmer-herder conflict in Laikipia, Kenya

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Abstract

This thesis analyses the role of political factors in conflict arising from climate change through a single case study of the farmer-herder conflict in Laikipia, Kenya. A better understanding of climate change and conflict is necessary, as there is no clear consensus among scholars. This thesis uses political ecology that states that political factors, such as politicised ethnicity, access to land tenure, and perception of identity have a direct influence on conflict. It criticises the environmental scarcity theory, which states that resource scarcity due to climate change directly influences conflict. Mixed methods are used to analyse the role of political factors. The process tracing method is used to test whether power relations in politics influence conflict and the qualitative content analysis method is used to support process tracing by providing inside into the political factors presented in three major Kenyan newspapers. The results show that perception of identity, access to land tenure, and politicised ethnicity all contribute to a negative impact on the ability of pastoralists to access and influence the distribution of resources. This causes the competition for resources to become violent. The findings also show there is indirect link between climate change and conflict. These findings are in line with political ecology theory. Therefore, this thesis contributes to the theory and discussion in the literature about climate change and conflict.

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1 Introduction

Climate change is one of the biggest dangers to peace, according to UNSG Guterres (UNEP, 2021). Intergovernmental Panel on Climate Change (IPCC) (2022) classifies the effects of climate change as rising temperatures and extreme weather, such as droughts and uneven rainfall. The threat to peace lies in the diverse environmental, political, social, and economic consequences of climate change, as tensions can lead to violence. According to Crisis Group (2022), 50% of the most climate-fragile countries face violent conflict, which will only enhance due to competition over resources by climate change-induced factors. Some regions are more vulnerable than others, as the level of ability to adapt and built resilience to the circumstances differs. Regions are at risk to experience violent conflict by the interaction of exposure, sensitivity, and adaptivity (IPCC, 2022). The growing danger climate change poses to vulnerable regions and an increasing need to develop policies to tackle these security risks asks for a better understanding of the link between climate change and conflict. A direct link between climate change and conflict is often made in the media reporting on conflict (The Economist, 2019). It would thus seem that the link is clear and well-understood. However, the relationship is often over-simplified. The link between climate change and conflict is complex and context-specific, which has sparked research interest. Yet, within the academic literature, there is no clear consensus. On one hand, research shows a direct link between climate change and conflict. For example, Burke et al. (2009) find that high temperatures will increase violence. Other scholars find that irregularities in rainfall influence violent conflict (Fjelde & Von Uexkull, 2012; Hendrix & Salehyan, 2012). On the other hand, several studies show that there is no link. They find that there is no relationship between low rainfall, water scarcity, and violent conflict (Theisen et al., 2011; Wischnath & Buhang, 2014). In between are the scholars who state there is an indirect link between climate change and conflict (Cabot, 2017). They find that political factors are often the intervening variable that is enhanced by resource

scarcity due to climate change. Political factors mediate climate change and determine whether the consequences of environmental shocks will result in conflict or cooperation (Cabot, 2017).

The ongoing debate shows there is no clear consensus among scholars on climate change and conflict. Therefore, there is a need to further develop the understanding of this relationship and take into account the effect of political factors. Investigating political factors can contribute to reducing the effect climate change has on the conflict because solving the effects of climate change through policy is a lengthy process and some consequences of climate change are already too late to prevent. Therefore, the thesis will look at the following question: what role do political factors play in conflict due to climate change?

The thesis will look specifically at the case of the farmer-herder conflict in Laikipia in Kenya. The farmer-herder conflict is an example of a conflict that may be linked to climate change, as it is often categorised as a resource conflict. It is about the competition over scarce resources that are under pressure from climate change, such as farmland and water and involves the following actors: pastoralists, farmers, ranchers, conservancies, and the state (Cabot, 2017). Conflict arises between different actors due to illegal grazing, land degradation, and the killing of wildlife. This type of conflict occurs in Africa, Asia, and South America. It mostly occurs in Africa, as this continent is home to over 268 million people that are tending to livestock with no permanent settlement (Nnoko-Mewanu, 2018). Pastoralist migration patterns are based on seasons and the needs of the livestock. The clashes are becoming increasingly violent, with more than 15.000 deaths occurring since 2010 in Africa (Brottem, 2021). Among scholars, there is also still no clear consensus on whether climate change factors or political factors cause this type of violent conflict. Therefore, it is relevant to study this type of conflict to contribute to the larger debate about the relationship between climate

change and conflict. Moreover, Africa is climate fragile continent that will benefit from a better understanding of the conflict conditions.

The thesis is structured in several chapters. In chapter 2, the thesis will discuss academic literature written on climate change and conflict. In chapter 3, the theoretical framework is discussed. This chapter ends with the central argument of this thesis. In chapter 4, an outline is given of the research design and methodology of the thesis. Moreover, the case selection of the farmer-herder conflict in Laikipia is justified. In chapters 5-7, the analysis of the role of the political factors: perception of identity, access to land tenure, and politicised ethnicity is presented. Finally, chapter 8 provides a conclusion of the thesis with an overview of the main findings and presents policy recommendations, limitations, and ideas for further research.

2   Literature review

Climate change can be defined as an evolving process that includes the natural evolution of the climate system and human influences which leads to an increase in the likelihood of e.g. flooding, heat waves, and wildfires affecting the world (Cabot, 2017). Climate change sets in motion environmental, economic, political, and social effects. The environmental consequences are that ecosystems get disrupted and resources diminish which in turn reduces water and food security. Food and water are key to the livelihoods of individual people but also to the economy at large. According to the Swiss Re Institute (2021), the global economy could shrink by 10% by 2050 due to climate change. The agricultural sector is most affected by climate change, as crops are affected by rising temperatures and extreme weather (EEA, 2015). This has major consequences for food security and the livelihoods of people. Moreover, displacement due to climate change impacts humans on a social level. The UNHCR estimates that on average 21.5 million people are displaced due to environmental shocks since 2018 (GRID, 2018). Also, political stability is endangered due to international

competition on resources due to climate change migration, and extreme weather (UN, 2020). All these consequences are unevenly located across the world. The most vulnerable regions are located in the Global South, with around 3.6 billion people living in areas of exposure to negative consequences of climate change (UNFCCC, 2022). This is especially also visible in sub-Saharan Africa. Africa is likely to suffer a high level of negative consequences of climate change because the continent has a high level of exposure to environmental shocks, a high level of sensitivity due to poverty, conflict, and weak political institutions, and a low level of adaptive capacity due to weak political institutions and social capital (IPCC, 2022). Moreover, climate-vulnerable regions often experience violent conflict over scarce resources. An example is Lake Chad, which plays a key role in the supply of water for the livelihoods of 30 million people in the region (Kabukuru, 2023). However, it has shrunk in size due to climate change which has impacted water and food security. As a result, a conflict emerged over access to natural resources.

The risks climate change poses are also the reason why scholars investigate the link between climate change and conflict. The central idea is that resource scarcity due to climate change creates competition among communities, which leads to conflict. Several studies have been conducted into the relationship between conflict and climate change. However, there is no clear consensus on whether climate change affects conflict or not. Burke et al. (2009) and Hsiang et al. (2011) find a direct link between high temperatures and an increase in violence. Moreover, Gizelis and Wooden (2010) find that water scarcity influences violent conflict. Also, Fjelde and von Uexkull (2012) suggest a specific relationship between conflict and low levels of rainfall. Similarly, Hendrix and Salehyan (2012) state that rainfall irregularities are linked to political conflict. On the other hand, several studies show that there is no link. According to Theisen et al. (2011), there is no evidence of a direct relationship between

climate change and violent conflict. Similarly, Wischnath and Buhang (2014) find no significant relationship between low rainfall, water scarcity, and violent conflict.

This discussion has given rise to another explanation of the link between climate change and conflict. According to Benjaminsen et al (2009), political factors play a role in turning resource competition violent, which means that climate change is an indirect and enhancing factor. As mentioned before, the ability to adapt and build resilience is key to predicting whether a violent conflict occurs (IPCC, 2022). An example of this is the civil war in Syria, which is perceived as a conflict to create a democracy. However, according to a report by Climate Diplomacy (n.d), it is not widely known that the five-year drought from 2006-2010 caused refugee flow towards the urban areas and increased food insecurity. The weak and corrupt government failed to address the basic needs of the population which resulted in violence. The outcome in Syria could be different if the government was able to address the needs of the population and provide options for the affected communities to adapt and build resilience. Not every region that experiences resource scarcity due to climate change will experience a violent conflict, as political factors shape the outcome. For example, the EU managed to reduce total emissions from agriculture by 24% between 1990 and 2023 due to climate policies (EEA, 2015). Therefore, political factors such as state fragility and corruption play a role in conflict due to climate change, as it limits the effectiveness to build resilience and adaptivity of vulnerable regions.

The debate is also visible in the farmer-herder conflict. Several case studies have been conducted to explain this type of conflict due to climate change. In the case of Sudan, Mazo (2010) finds that the societal division between farmers and herders played an important role. Benjaminsen et al. (2009) find in Tanzania that the conflict is best explained by the modernisation of land policies and not by competition over resources. However, Issifu et al (2022) find that in Ghana the farmer-herder conflict is caused by environmental scarcity and

the competition over renewable resources during droughts. But, other socio-political factors such as population growth, weak institutions, and arms proliferation also influenced the conflict. On the contrary, Madu and Nwankwo (2021) find that in Nigeria the conflict is not directly caused by climate change.

This again shows a similar debate on climate change and conflict and the importance of political factors. The literature identifies three main political factors that play a role in the farmer-herder conflict: access to land tenure, perception of identity, and politicised ethnicity. These factors are all affected by state capacity and corruption. Firstly, land use policies on local and national levels are key in farmer-herder conflict, as they affect the ability to claim land and settle a dispute legally (Benjaminsen et al, 2009). Moreover, the privatisation of land and policies create boundaries. This makes mobility hard for pastoralists (Kariuki & Ng'etich, 2016). Mobility is at the core of the livelihood of pastoralists. The nomadic way of life is therefore endangered by the way land tenure is organised.

Secondly, a negative perception of identity can lead to the exclusion and marginalisation of ethnic groups (Nwankwo & Okafor, 2022). Within society, the identity of pastoralists is seen as traditional and poor, but the farmers on the other hand are viewed as modern and wealthy (Pitikoe & Preece, 2016). This bifurcation in the perception of the identity of these two groups affects the ability of pastoralists to access and influence the distribution of resources. This is because positive perception by society allows a group to effectively claim recognition from the state. If a group receives recognition from the state, it has the power to influence and access the distribution of resources. However, when a group is perceived as negative by society, the ability to make an effective claim on resources is reduced.

Thirdly, politicised ethnicity can be defined as the deliberate use by political elites of ethnic identities for political and economic gain (Ajulu, 2002). Politicised ethnicity within the

system allows for the manipulation of ethnic grievances to aggravate resource conflict (Kirwin, 2010). Moritz (2006) states that corruption only enhances this even more. This is because the distribution of goods and services by the government is based on whether the government official belongs to the same ethnicity (Horowitz, 2022). Therefore, people vote along ethnic lines to secure their share of resources. Politicians exploit these identities in a violent and hateful way, by using ethnic hate rhetoric and incitement of violence. Moreover, there is a low level of trust in the provision of public goods by government voters due to corruption (NCIC, 2022). As a result, ethnic groups are more likely to resort to violence to ensure that their political candidate wins that claim to protect their needs. These claims are again rooted in violent and hateful rhetoric.

Thus, political factors harm the effectiveness of the distribution of resources, as they are an obstacle to peacefully and effectively creating solutions for resource scarcity. The distribution of resources is important to influence as a group because different communities have needed to sustain their livelihood with diminishing resources. To survive, pastoralists need to be able to make resource claims. This is increasingly difficult due to political factors. The only option left is to use violence and take resources by force.

There is still no clear consensus in the larger academic debate about the link between climate change and conflict, but research into the role of political factors in the relationship between climate change and conflict can provide an addition to clarifying this debate. Moreover, it can help IOs and NGOs better target specific political factors to build resilience and promote adaptivity in climate-vulnerable regions.

3   Theoretical framework

Environmental scarcity theory by Homer-Dixon (1999) investigates the link between climate change and conflict. This theory argues that resource scarcity is caused by either decrease in

renewable resources and population growth or unequal distribution of resources which all increase the likelihood of political violence. It provides a scale of empirical work linking climate change-induced factors, such as environmental degradation, global warming, scarcity of renewable resources, and biodiversity loss with violent conflict (Cabot, 2017). The theory focuses especially on renewable resources, such as freshwater, forest, and cropland which are essential to people's livelihoods. A decrease in resources creates competition among groups to shift the distribution in their favour which leads to violence. Moreover, scarcity of resources stimulates migration to other areas with an abundance of resources. As a result, tensions rise between migrant groups and existing groups over the distribution of resources. In conclusion, environmental pressure causes resource scarcity which harms political stability (Homer-Dixon, 1999). According to the environmental scarcity theory, social capital influences the ability to adapt to environmental shocks (Cabot, 2017). An individual with a secure social safety net allows them to secure their livelihood and not resort to violence.

Political ecology theory can be identified as the most prominent critical response to environmental scarcity theory, as it discards the simplification made by environmental scarcity. It states that resource conflict stems from non-environmental factors that are entrenched in local and global socio-political institutions (Issifu et al, 2022). The trigger of conflict is a political system that allows for politicised ethnicity. This allows politicians to manipulate ethnic grievances and aggravate conflict (Kirwin, 2010). Political ecology focuses therefore on the power relations in local, national, and global land use policy (Benjaminsen et al, 2009). Moritz (2006) adds the concept of corruption, as this shows the true behaviour of bureaucrats. He argues that by leaving out corruption political ecology focuses too much on the unrealistic version of the state. The failures of states in distributing resources and managing conflicts are due to weak corrupt institutions, as a strong state can experience the same level of climate change but can overcome or adapt due to strong institutions. Therefore,

political ecologists argue that climate change is not a direct cause but depends on political factors and whether the outcome is violent. The environmental scarcity theory fails to address these factors that show underlying social conflict (Cabot, 2017).

Similar to the findings of studies on climate change and conflict, the two main theories also clash in their arguments. This shows there is a need to establish a better understanding of the relationship between climate change and conflict. Political ecology theory is used to explain the role of political factors in conflict due to climate change. This theory is chosen because it uses political factors to explain the relationship between climate change and conflict. At the centre of this thesis, a causal model is used that is based on political ecology theory (see figure 1). The alternative explanation is based on the environmental scarcity theory, which states that violent conflict is caused by land and water scarcity.

Figure 1

The explanatory model
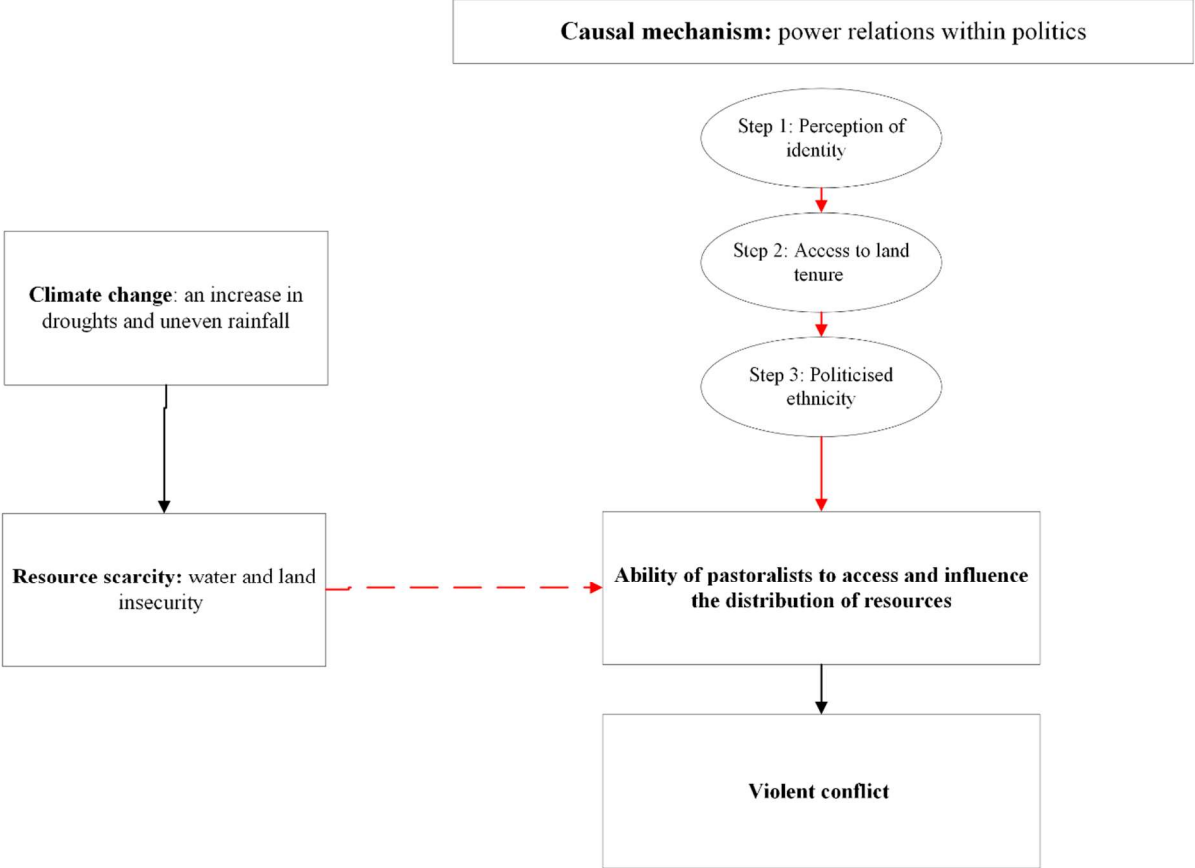
This is important for several reasons. Resource scarcity due to climate change is hard to solve in short term, as rising temperatures and extreme weather are only countered by world effort. Moreover, some effects of climate change are already too late to prevent. Political factors, such as the perception of identity, access to land tenure, and politicised ethnicity, can be tackled by the state and its people self. Investigating political factors can contribute to reducing the effect of climate change on the conflict because as the IPCC (2022) has stated the level of adaptivity and resilience of a country is decisive in the level of impact climate change has on society.

On the other hand, environmental scarcity theory only focuses on climate change as a cause of the conflict. This disregards the influence of political factors on the conflict. This is also not

helpful in creating policy solutions to provide society with more ability to adapt and built resilience. Moreover, to reject environmental scarcity theory the thesis has to investigate whether political factors play a role in conflict due to climate change. This relates to the research question posed.

4 Methodology

4.1 Research design

The thesis conducts a single case study, which enables an in-depth analysis of the topic (Halperin & Heath, 2017). The method creates high levels of internal validity, which can be defined as the level to which descriptive or causal inferences can be made for the cases (Gerring, 2008). Equally, it provides external validity, as similar cases could use explanations of which factors affect conflict due to climate change.

The following variables are used to analyse the role of political factors in conflict due to climate change. The dependent variable is a conflict due to climate change. The independent variables are access to land tenure, perception of identity, and politicised ethnicity. The control variable is climate change. The analysis uses mixed methods of process tracing and qualitative content analysis. Process tracing is a systematic study of data that allows a better understanding of the causal mechanisms between variables over time and discuss the potential alternative explanations (Bennet & Checkel, 2015). Moreover, qualitative content analysis looks at latent content, which allows for a nuanced view of the underlying meaning behind the text (Halperin & Heath, 2017). Mixed methods are used to strengthen the findings of this thesis. Supporting the causal mechanism of process tracing by data found through qualitative content analysis offers a more structured form of analysing the data. This gives the opportunity to better reconstruct social situations (Laurel & Glaser, 2019). Mixed methods, therefore will give a more detailed description of what role political factors play in conflict

due to climate change. Moreover, the use of mixed methods counters one of the weaknesses of process tracing. It is difficult for process tracing to account for the missing data that undermines the main hypothesis and supports the alternative explanation (Gonzalez-Ocantos & LaPorte, 2021). The qualitative content analysis accounts for the missing data as it is included in the data selection. The data is analysed for the underlying meaning and context of the variables. This means if an alternative explanation is found, it will be shown in the findings.

4.2   Case selection

The selected case study focuses on the farmer-herder conflict in Laikipia County in Kenya. Laikipia is located in central Kenya and features the high and dry Laikipia plateau, part of the Rift Valley. The case of farmer-herder conflict is often analysed in West Africa and not so much in East African countries. Therefore, the case contributes to explaining the farmer-herder conflict in a different region. Moreover, most research looks at one political factor. This thesis will look at the combination of three political factors. The following variables are visible in the Laikipia.

Firstly, the control variable of *climate change* is visible in Laikipia due to land degradation, uneven rainfall, and droughts due to climate change (World Bank, 2021). Laikipia and the surrounding counties of West Pokot and Baringo, home to many pastoralists are among the most disaster-prone areas in Kenya. The effects of climate change increase the likelihood of water and food insecurity. This results in economic losses, damage to land, and infrastructure. These climate projections have major consequences for the livelihood of pastoralists. Secondly, the dependent variable *conflict* is observed between rival pastoralists or the movement of livestock on private ranches, conservancies, and agricultural land (Crisis Group, 2022). Some examples of the conflict are the following. In April 2017, Kuki Gallmann a best-

selling author and owner of Ol Ari Nyiro private ranch was shot (Otieno, 2021). In September 2017, a farm was violently invaded by dozens of armed pastoralists in search of grass for their cattle (The Economist, 2017). As a result, the government deployed security forces to drive out the armed pastoralist in the region in 2021. Last, the independent variables are all present. The perception of identity is also prevalent in Kenyan society. There are over 9 million pastoralists, amongst the 50 million-strong population of Kenya (Mugonya & Hauser, 2022). Pastoralists are therefore a group to be accounted for in politics and society. However, their traditional way of life and marginalised status in society cause different perceptions among people. Moreover, access to land tenure is distorted due to historical land injustices. This affects the different land claims each actor has made since colonial times. In the 19th century, European settlers saw the plateau as an opportunity (Gravesen, 2021). The land was seen as uninhabited by British settlers who ignored the fact that Samburu, Pokot, and Maasai used the land. This created historical grievances among different groups in Laikipia, as there are opposing land claims. Furthermore, politicised ethnicity is prevalent as Kenyan politics are largely divided along ethnic lines (Kisaka & Nyadera, 2019). Kenya experienced violent events among the ethnic communities in Kenya created a stronger ethnic cleavage in the political arena (Elischer, 2013).

4.3 Process tracing

The explanatory model presented in figure 1 above provides the framework to define the steps within process tracing. At the top of the model, the political factors considered in the analysis are presented as a series of 3 steps: perception of identity, access to land tenure, and politicised ethnicity. Power relations within politics are identified as a causal mechanism. The key steps in showing the causal mechanism at play are the following:

The first step is focused on the perception of identity. The entity is pastoralists, and the activity is the perception identity by the media. The second step looks at access to land tenure. The entity is the local/national government, and the activity is that the system favours certain groups within society access to land tenure. The third step is addressing politicised ethnicity. The entity is political parties or politicians, and the activity is the manipulation of ethnic grievances in the political systems.

All these three steps are important to understand the power relations within politics, as the steps account for each other. The first step explains the position of herders within society, but it does not account for their ability to use the political system to obtain land. Therefore, it is important to look at access to land tenure granted by local/national governments. Still, land policies do not show how these policies come about. Hence, the manipulation of ethnic grievances within the political systems should also be investigated. These steps can be observed through various kinds of manifestations visible in table 1 under data collection.

The alternative explanation based on environmental scarcity theory will also be considered. This explanation will expect a direct link between resource scarcity, the ability to access and influence, and violent conflict. As figure 1 shows, this is not the expected outcome following the political ecology theory. To be able to exclude this explanation, it is also necessary to analyse if resource scarcity can fully explain the farmer-herder conflict.

4.4 Data collection

Table 1

Operationalisation

Concept	Variables	Indicators	Data sources
Climate Change	Resource scarcity	• The number of droughts or uneven rainfall periods.	Articles from the Star, the Standard and Nation on consequences of climate change
Farmer-herder conflict	Violent conflict	• Violence between pastoralist and farms/ranches/conservancies/government/pastoralists	Articles from the Star, the Standard and Nation on violent events in Laikipia
Political factors	Politicised ethnicity	• Ethnic hatred and incitement by local and national politician • Ethnic voting • Corruption • Political obstruction	Articles from the Star, the Standard and Nation on corruption, voting, and politicised ethnicity
	Perception of identity	• Discourse on the identity of pastoralists/farms/conservancies/ranches	Articles from the Star, the Standard and Nation on the identity and conflict in Laikipia
	Access to land tenure	• The ability to access land through land policies by local or national governments.	Articles from the Star, the Standard and Nation on land policy and land actors

4.5 Data analysis

The thesis analyses the data with the use of process tracing and qualitative content analysis with deductive coding to test the political ecology theory and answers the research question. The data that consist out of articles from the Kenyan newspapers: Nation, The Standard, and The Star in time period between 2010-2022 on the perception of identity, access to land tenure, and politicised ethnicity. The variables of climate change and conflict are also taken into account when analysing the data. The newspapers give a credible overview of the news in Kenya, as they represent the biggest and most-read newspapers. The data is gathered by searching different keywords on the website of every newspaper. The keywords are as follows: Land/Politics/Reform/NLC/Constitution/Kenya/Policy/Corruption, Conflict Laikipia Conservancy/Ranches/Farms/Pastoralists, and Laikipia/Violence Politicians/Incitement/Politics/Election. Table 2 shows the codes that are used for the analysis. The codes are derived from political ecology theory. This data is relevant for the

analysis as it provides inside into violent events that have taken place and interpretation by different actors in the media on what role political factors play in a conflict due to climate change.

Table 2

Variables and codes

Variables	Categories	Codes
Access to land tenure	• Cause of the effect • The actors • Type of effect	• Political obstruction, Government, Historical Injustices, Land grabbing Power struggle between NLC and Executive, and Legislation • NLC, Communities, Ministry of Land, Government, Politicians and Private landowners (farms, ranches, conservancies, individuals) • Negative effect on access land tenure, Neutral effect on access land tenure, and Positive effect on access land tenure
Perception of identity	• The actors • Type of identity • Role in the conflict • Behaviour towards other actors	• Pastoralists, Farms. Ranches, and Conservancies • Modern, Traditional, Poor, and Wealthy • Victim, Aggressor • Peaceful, and Hostile
Politicised ethnicity	• The actors • Type of rhetoric • Strategy of politician	• Local Politicians, National Politicians • Incitement of violence, Ethnic hate rhetoric, Promoting harmony and peace • Campaign strategy, Cooperation with pastoralists, Exploitation of youth pastoralists, Increasing security forces, Manipulation of pastoralists, Policy solutions by politicians, Politicised ethnicity for electoral gain, and Politicised ethnicity for personal gain

5   Perception of identity

The first step in uncovering power relations in politics as the causal mechanism is the perception of identity. The perception of identity is analysed as the different views in the media of pastoralists and farmers/ranchers/conservationists. The following section will present the findings of the analysis of news articles. Table 3 shows the distribution of the number of documents and quotations perception of identity.

Table 3

Documents and quotations

|	Number of documents	Number of quotations
Nation	30	80
The Standard	30	63
The Star	30	67
Total	**90**	**210**

5.1   Findings

5.1.1   Peaceful or hostile

Figure 2 shows whether the actors are hostile or peaceful towards other actors in the conflict. It can be observed that pastoralists are hostile towards ranches, farms, and conservancies. This is in line with the accounts given in the conflict overview. Pastoralists are invading private property from ranches, farms, or conservancies in search of pasture. They kill wildlife and use violence when obstructed by private landowners. Several news articles in Nation and The Standard cover the murder of British landowner Tristan Voorspuy. He was shot dead during the inspection of a lodge that had been set burned down by illegal grazers (P1D42). This is an example of many where herders use violence for no particular reason, as they are not attacked by private landowners. As a result of the violent attacks on private property by pastoralists, there is an increase in private security personnel hired to protect ranches, farms, and conservancies (P1D55). This is visible in the figure that shows a high amount of hostility from conservancies towards pastoralists. In turn, this increases the violence towards private and public security personnel by pastoralists. Moreover, the use of violence toward police and armed forces is because the government deployed them to secure peace. In addition,

pastoralists are also violent towards other pastoralists. This is a form of cattle raiding by pastoralists from different ethnic backgrounds, which is caused by the migration by pastoralists towards Laikipia (P1D5). In some instances, there is cooperation between pastoralists and mostly conservancies. This is visible in all the newspapers. They help each other to survive the drought and make arrangements to open up their private property to allow grazing (P1D7). Nevertheless, cooperation does not occur often.

Figure 2

The actor's behaviour towards other actors
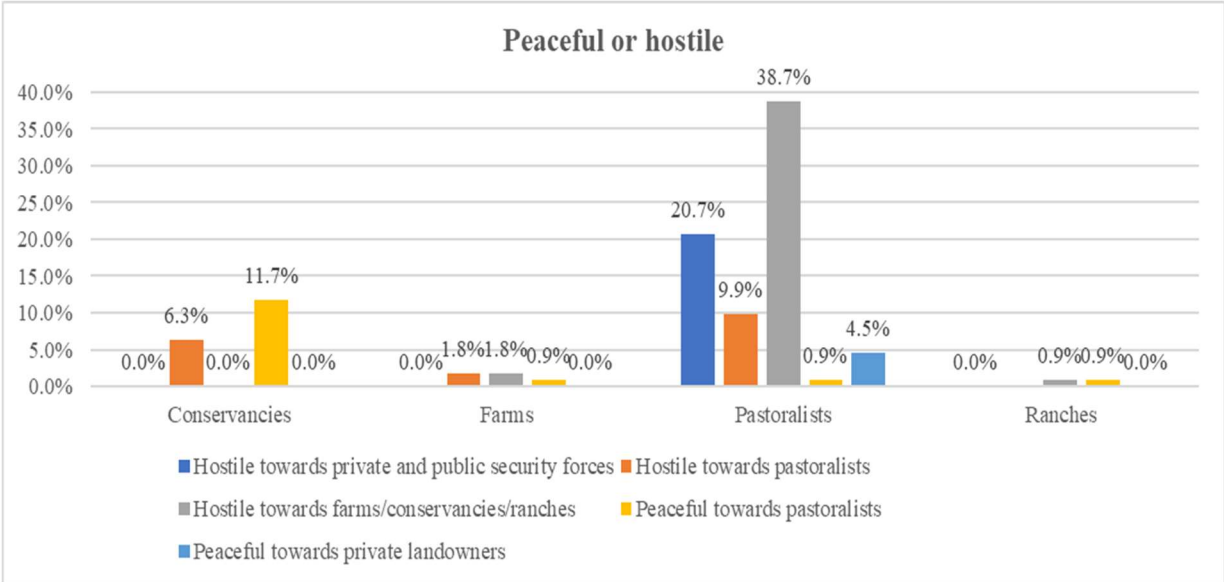
5.1.2 Wealthy or poor

What stood out during the analysis of the news articles is the economic importance of private ranches and conservancies. This is presented in figure 3, where conservancies and ranches are perceived as wealthy. The local and national governments benefit therefore from the existence of these private properties, as the exclusive tourist business acquires high revenues. For example, Borana Conservancy has paid the county and national government over Sh284 million in taxes (P1D37). On the contrary, pastoralists are perceived as poor due to the decline

in the livestock market. Selling your cows or goats is equal to an extreme economic loss (P1D78) Moreover, the recurring droughts cause cattle to die. Livestock is the main source of income for pastoralists: when they lose cattle they are not able to sustain their livelihood anymore (P1D34). This means that there is a necessity among pastoralists in the search for pasture and water to save their cattle.

The importance of cattle for pastoralists links to the traditional way of life. The pastoralists are perceived as traditional, as seen in Figure 6. This is because their status depends on owning cattle. The more cattle the higher status one receives within their group. This is often misunderstood by more modern and capitalist private landowners. They find it hard to believe why pastoralists do not find other ways to earn income (P1D34). However, they lack knowledge about the cultural importance of owning cattle. This creates tension between pastoralists, the government, and private landowners. The pastoralists want to sustain their traditional way of living by owning cattle and feel marginalised, but private landowners and the government want to modernise land and do not see the issue of changing their way of life to fit into modern society (P1D60).

Figure 3

Perception of the actor

Perception of the actor
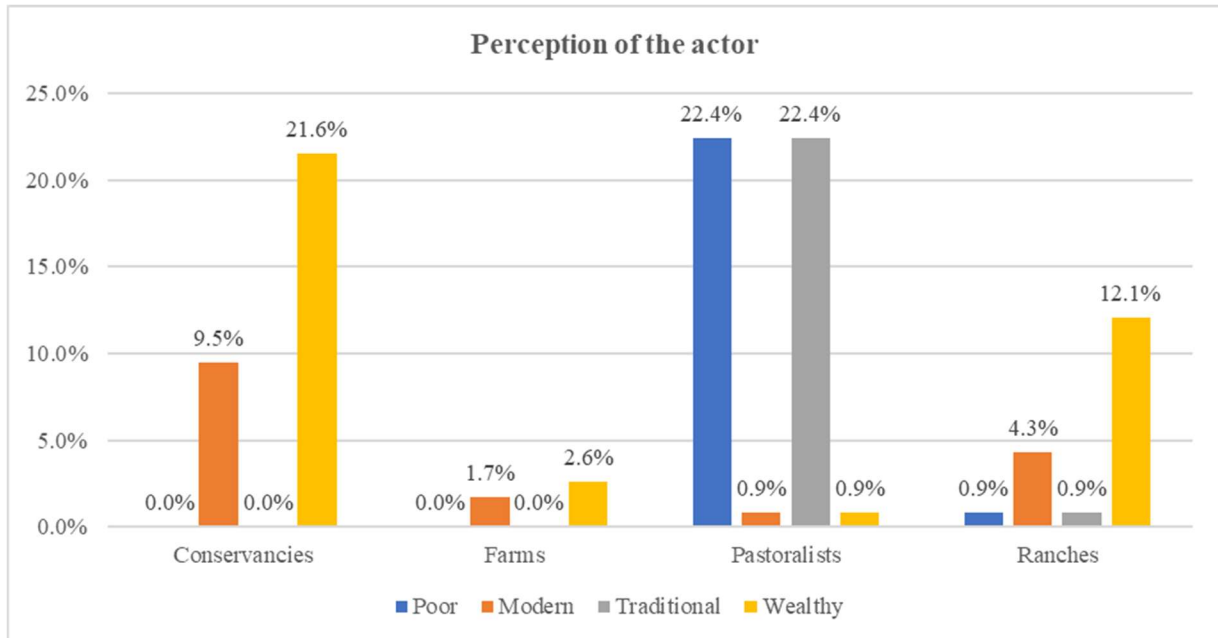
5.1.3   **The role of the government and politicians**

Figure 4 demonstrates whether the actor is perceived as the aggressor of the victim in the conflict. It shows what the general thought in Kenya is as to who is seen as the cause of the conflict. This has consequences on how the conflict is resolved or how the needs are perceived as valid. The aggressor in the conflict are the pastoralists. However, despite being the aggressor the pastoralists are also seen as the victim in the conflict next to the ranches and conservancies. This means that there are other actors involved that are decisive factors in the conflict.

Figure 4

Aggressor or victim
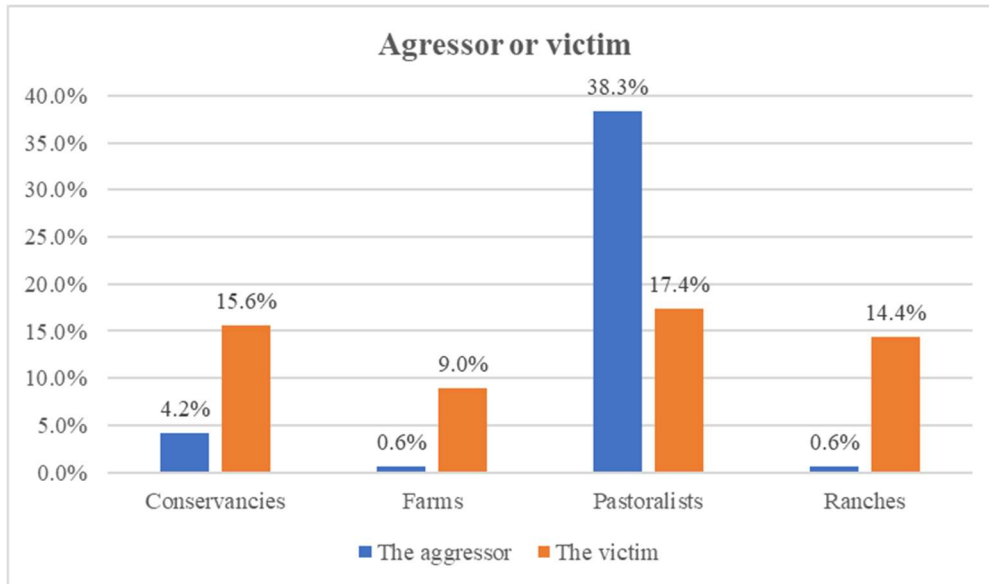
A key factor that keeps coming up is the role of the government in coming between 'farmers' and 'herders' in the conflict. The government however is biased towards the 'farmers'. The support by the government is visible in the police protection of private ranches or the building of trenches along the border to obstruct cattle to cross into private property (P1D3). This can be linked to the protection of their interest. The goal of the government is to modernise land use, as local and national governments receive large amounts of taxes from private land businesses and not from pastoralists (P1D34). Moreover, government officials also own or have individual interests in farms, ranches, or conservancies.

5.2   Linkage to Political Ecology

The analysis explains the role of perception of identity in conflict due to climate change. The findings in the first step of the analysis help answer the research question. It can be concluded that the perception of identity as a political factor plays a decisive role in turning the conflict due to climate change violent. This is because the perception of poor, traditional, aggressor,

and hostile negatively impacts the ability of pastoralists to access and influence the distribution of resources. This is because pastoralists are not supported by politicians that can provide solutions to the conflict. This is different for the ranches, conservancies, and farms that are classified as modern, wealthy, the victim, and both peaceful and hostile towards pastoralists. These actors are supported by the government, because of their economic importance which allows them to employ private security personnel and influence government policies. This negatively impacts the ability to access and influence the distribution of resources to pastoralists. The findings are in line with political ecology, which states that the negative construction and perception of identity can lead to exclusion and marginalisation. However, pastoralists are also perceived as the victim of the conflict. This suggests that there are other actors involved that victimise pastoralists. This thesis identifies these actors to be politicians and government officials. This can be linked causal mechanism of the power relations in politics. It is identified that politicians intend to safeguard Laikipia's interests. Still, the perception of identity cannot explain the role of political factors on its own. As the findings lead to the question of how is land governed in Kenya. This thesis argues that land politics and policy will uncover the role of politicians. Therefore, the next section will analyse the access to land tenure.

6 Access to land tenure

The second step of uncovering power relations in politics as the causal mechanism is access to land tenure. Access to land tenure is an important factor for pastoralist communities to acquire legal status for the land they use for grazing. It is therefore important to first investigate the land tenure system in Laikipia which is derived from academic articles on the land laws in Kenya. The following section will present the findings of the analysis of news articles. Table 4 shows the distribution of the number of documents and quotations for access to land tenure.

Table 4

Documents and quotations

	Number of documents	Number of quotations
Nation	28	100
The Standard	26	62
The Star	26	51
Total	80	213

6.1 Land tenure system

The land tenure system is quite diverse in Laikipia. It can be categorised into private/modern, communal/customary, public/state, and open access systems (Greiner, 2017). An overview of the location of land use within Laikipia County is visible in Figure 5. This also illustrates how bounded these areas are, as the land is subdivided into bordered areas. Moreover, a small part of the land in Laikipia is meant for group ranches to accommodate the livelihood of pastoralists. This land is increasingly over-grazed by other pastoralists moving from the neighbouring counties in search of resources.

Figure 5

Laikipia land use map

From *Laikipia Land Crisis: A Ticking Time Bomb*, by J. Letai, (2021)

(https://www.theelephant.info/features/2021/10/22/laikipia-land-crisis-a-ticking-time-bomb/).

This raises the question of how pastoralists can claim land. The increase of communal land or grazing rights will increase mobility and secure livelihood. It is therefore important to analyse the legal framework of Kenya on land tenure. The legal framework is taken apart into the Constitution, National Land Policy, Land Laws (Amendment) Bill, and Community Land Act.

The 2010 constitution of Kenya addressed the historical land injustices stemming from colonial times and the corrupt systems of administration identified in the 2000s (Manji, 2015). In more particular, it was to deal with the politicised and corrupt Ministry of Land (Boone et al., 2019). The principles of land policy in the Constitution had to be translated into National

Land Policy, which consists of the Land Act, the Land Registration Act, and the National Land Commission Act. These laws introduced an independent National Land Commission (NLC) that was supposed to bring efficiency, transparency, and accountability to the land administration system (Di Matteo, 2022). It would stand above politics and be independent of the executive and the established political elite (Boone et al., 2019). Despite the intentions in the 2010 Constitution, the process of drafting and path through Parliament was rushed and did not address the transformative aspect of the land reform. The laws are especially important in increasing the accessibility to land tenure by pastoralist communities, as historical injustices created inequality in land ownership among private landowners and pastoralists (Manji, 2015). By addressing these injustices and needs of pastoralists, it is made possible to restore ownership by communities. After disputes between the NLC and the Ministry of Land about the powers and responsibilities of their mandate, the Land Laws (Amendment) Bill was drafted by the Ministry of Lands in 2015 to regain power over the land administration system (Boone et al., 2019). The amendments to the land laws only created more obstacles for pastoralists to access land tenure. In 2016 Community Land Act was passed, which had to address the protection of community lands. This law is especially important for pastoralists, as it allowed for registration of their land and thus protection of their identity. It created the legal framework for many communities to secure their land. On paper the law has a positive effect on increasing the accessibility to land tenure by pastoralists, as land registration for communities became legalised. However, the implementation by the Ministry of Land failed. This shows the importance of the correct implementation of the law to become transformative.

6.2 Findings

It has been analysed what kind of effect access to land tenure has on the ability to influence and access the distribution of resources by pastoralists. This is important, as access to own
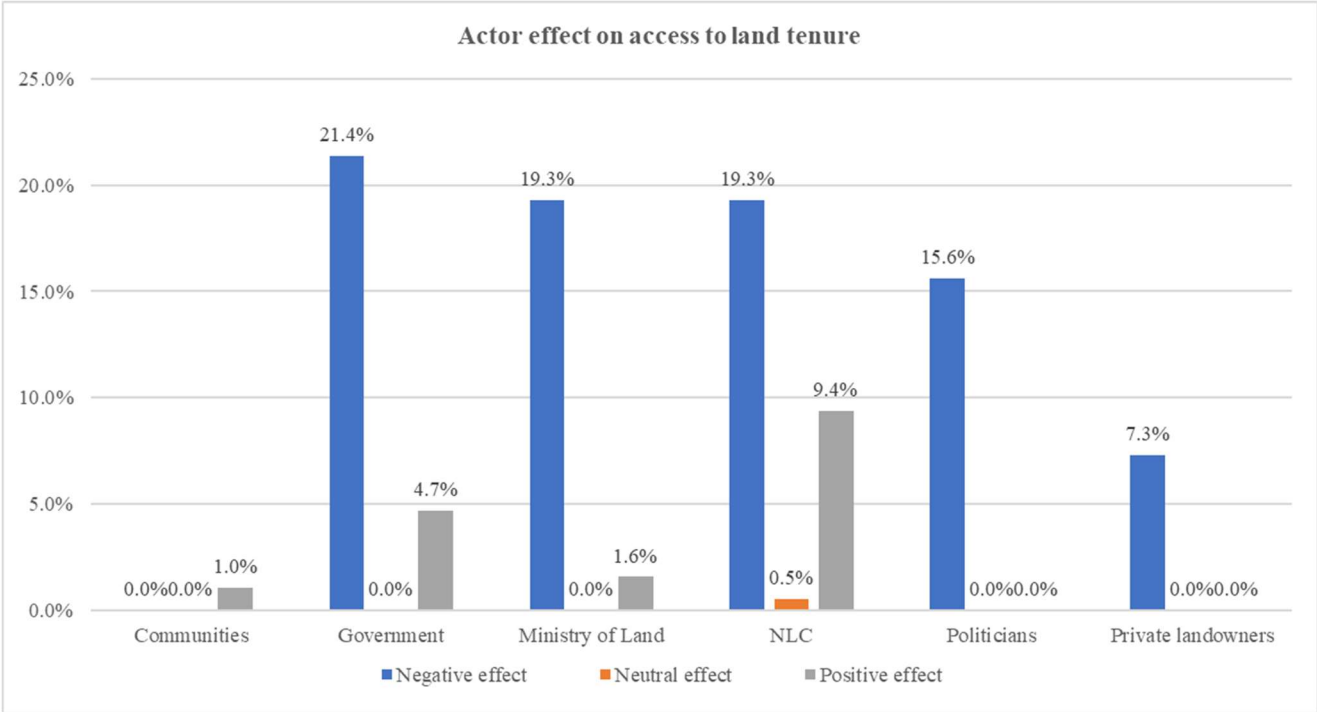
land as pastoralists can help protect and sustain their livelihood. The section above already confirmed issues of the legal framework. The following part looks at who are the actors that cause the negative effect and what are the causes of this.

6.2.1 Actors and their effect on land tenure

Figure 6 shows that there is an evenly distributed negative effect on access to land tenure by the most powerful land actors: NLC, the Ministry of Land, and the Government. This is controversial, as these are the actors that are supposed to safeguard and implement effective land policies. First, the negative effect of the government lies in the unwillingness of the government to tackle the issue of historical land injustices with the implementation of the legal framework (P2D105). Moreover, government officials have a personal interest in implementing a policy that is beneficial for them. This is because similar to former president Kenyatta, other government officials obtained large amounts of land after the independence (P2D89). Therefore, there is an obstruction to implementing a transformative land policy that addresses the historical injustices. Second, the negative effect of the Ministry of Land and NLC is largely due to their dispute over their powers. The power struggle between the NLC and the Ministry of Land is the product of the aftermath of the implementation of the National Land Policy (P2D89). The two actors are intertwined in a battle over resources and mandates, which has a negative influence on access to land tenure. Despite the negative contestation of the role of the NLC, it is also observed that the NLC contributes the most positively to access to land tenure. This is because the NLC is created to improve the access to land tenure for all Kenyans (P2D72). They have made some progress over the years in addressing historical injustices cases.

Figure 6

Actor effect on access to land tenure

Actor effect on access to land tenure

| Actor	Negative effect	Neutral effect	Positive effect
Communities	0.0%	0.0%	1.0%
Government	21.4%	0.0%	4.7%
Ministry of Land	19.3%	0.0%	1.6%
NLC	19.3%	0.5%	9.4%
Politicians	15.6%	0.0%	0.0%
Private landowners	7.3%	0.0%	0.0%

6.2.2 Causes of the negative effect

The analysis illustrates two main causes of the negative effect the prominent land actors have on access to land tenure: political obstruction and corruption. Political obstruction is shown in Figure 7. This figure presents that shows government and politicians use political obstruction. This relates to the accounts given by politicians and government officials that obstructed and excluded the transformative functions of the NLC given by the 2010 Constitution (P2D44). This is because government officials have personal interests and protect their power position. This relates to political ecology theory, which states that power relations in politics cause conflict to become violent. As a result of these power relations, the legal framework to transform land tenure has not been effective. Majority of the news articles show that the policies did not acknowledge the core problems in land in Kenya. Therefore, the land reforms did not provide a legal basis for communities and individuals to make claims on land and

counter historical injustices. which has negative effects on the access to land tenure by
pastoralists (P2D48).

Figure 7

Actors and political obstruction
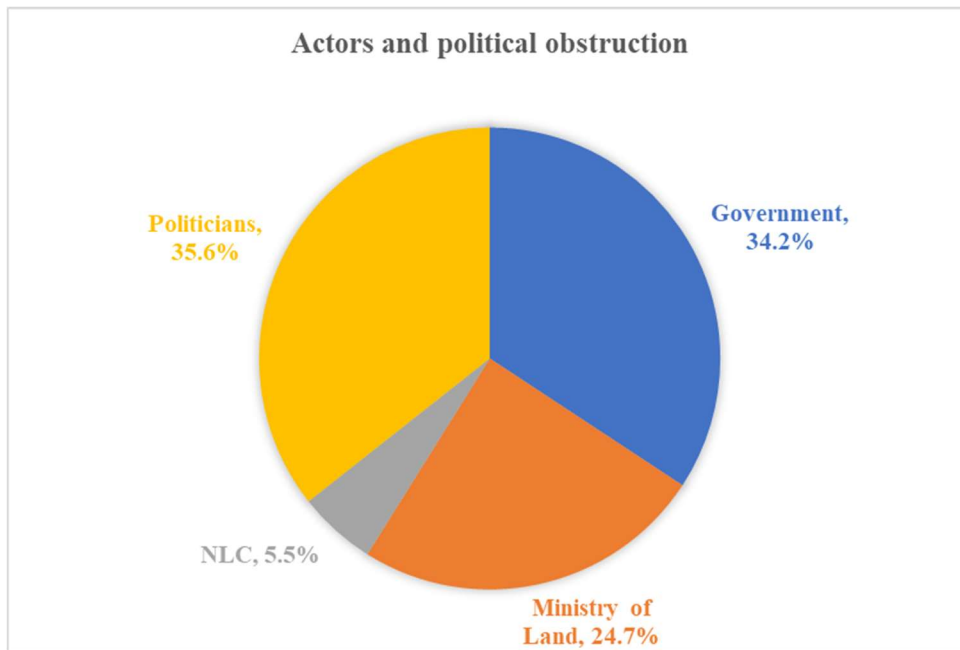
Corruption among the actors is shown in Figure 8. It is illustrated that the NLC is the most

corrupt land actor of them all. This is contradictory to the reason why NLC was created. Their

goal was to address historical land grievances, tackle corruption in the land sector, and

restrain land grabbing and political manipulation by the elite (Boone et al., 2019). However,

the NLC is involved in corruption scandals. For example, the chairman of NLC Swazuri was

arrested on the ground of corrupt land compensation and conspiracy to steal Sh222 million

(P2D83).

Next to the NLC, the Ministry of Land and politicians are also mentioned as corrupt. First, the

Ministry of Land's corruption is linked to their lack of transparency of documents and

therefore helping private landowners and the political elite (P2D40). Second, politicians see

the opportunity to use land politics to gain votes and get a share of the profits of private developers (P2D45). This relates to the factor of politicised ethnicity, as politicians exploit ethnicity to win votes. Moreover, it also shows the power dynamic among actors to all get a share from the profits of land politics. This is the overall causal mechanism that causes the farmer-herder conflict suggested by political ecology. Last, private landowners are mentioned as corrupt, but only together with a public actor (P2D118). This has often to do with land grabbing. This is explained in the following paragraph.

Figure 5

Actors and corruption
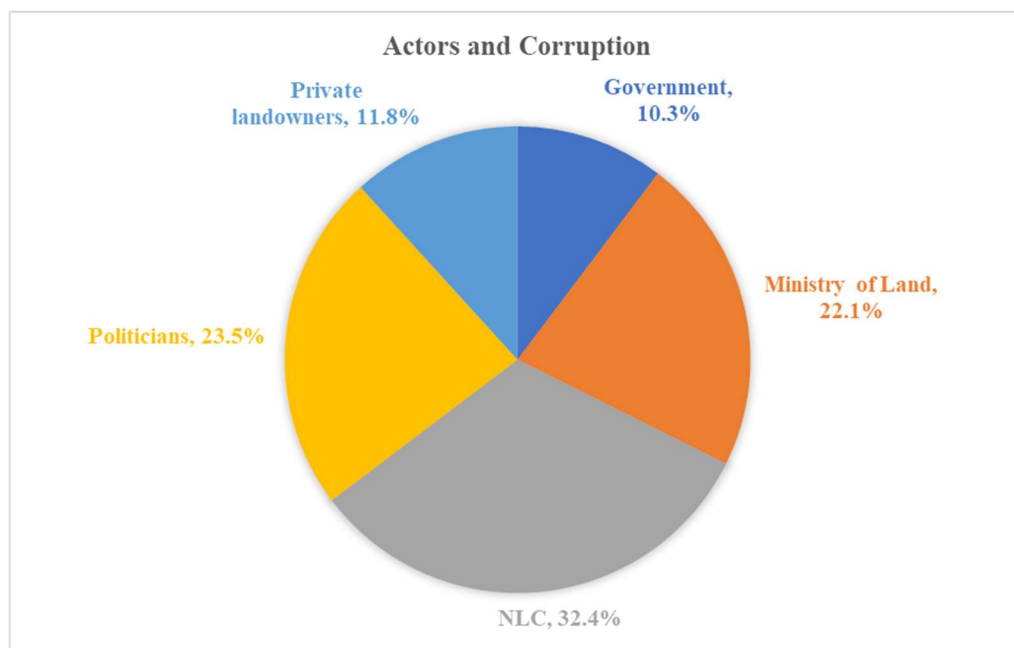
6.2.3 The effect on pastoralists

As explained above, the behaviour of NLC, politicians, the government, and the Ministry of Land affects pastoralists, as these actors enable land grabbing (P2D39;P2D42). This can be defined as private investors, corporations, or states that illegally or irregularly acquire land resulting in the displacement of hundreds of people (Kariuki & Ng'etich, 2016). Land

grabbing creates more obstacles to the mobility of pastoralists, as Laikipia land is carved up into non-visible. This again shows an indication of the importance of power relations in politics in explaining the role of political factors in the farmer-herder conflict.

6.3   Linkage to Political Ecology

This analysis explains the role of access to land tenure in the conflict due to climate change. The findings in the second step of the analysis help answer the research question. It can be concluded that access to land tenure as a political factor plays a decisive role in turning the conflict due to climate change violent. This is because political obstruction and corruption by land actors and lack of implementation of land reforms do not allow for the opportunity for pastoralists to settle their land disputes peacefully. This negatively impacts the ability to access and influence the distribution of resources to pastoralists. Moreover, the lack of access to land tenure due to power relations in land policy can be linked causal mechanism of the power relations in politics. This is in line with the political ecology theory, as it states that the power struggles in local and national land policy and corruption determine whether conflict due to climate change becomes violent. Still, access to land tenure cannot explain the role of political factors on its own. This section highlights the impact of political obstruction and corruption. But what makes politicians corrupt or use political obstruction? This is explained in the following section.

7   Politicised ethnicity

The last step of uncovering power relations in politics as the causal mechanism is politicised ethnicity. The following section will present the findings of the analysis of news articles. Table 5 shows the distribution of the number of documents and quotations for politicised ethnicity. As mentioned above, the former steps show an unexplained factor that influences access to land tenure and perception of identity. The role of politicians is seen as an influential

factor in corruption and political obstruction, but also in the domination of the discourse surrounding the perception of identity.

Table 5

Documents and quotations

	Number of documents	**Number of quotations**
Nation	30	46
The Standard	30	33
The Star	32	66
Total	92	145

7.1 Findings

The analysis shows there is almost no cooperation between politicians and pastoralists to find sustainable solutions for the conflict. This relates to the findings above, that state that there is a negative perception of pastoralists that is betrayed by politicians and political obstruction to develop effective solutions for pastoralists on land policy. The lack of cooperation points out an alternative motive of politicians to use the conflict to further their electoral success. This is defined as politicised ethnicity. Figure 6 shows that politicised ethnicity is widely used by both local and national politicians to secure their position during the elections. There is a difference between local and national politicians in the reasons behind their manipulations.

Figure 6

Politicised ethnicity.
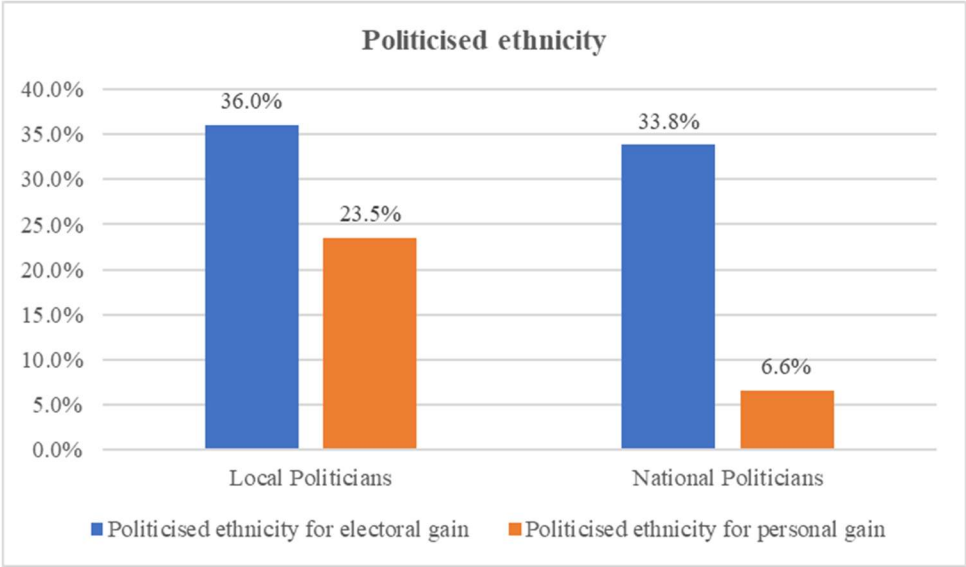
7.1.1 Local politicians

Figure 6 shows that local politicians contrary to national politicians manipulate ethnic grievances both for electoral and personal gain. This is because local politicians have more personal interest to secure in Laikipia, as they also own large amounts of cattle that illegally graze on the lands of private ranches. An example is Mr. Kamama, a local politician from Baringo who owned cattle that illegally grazed on private ranches (P3D6). Local politicians often use youths from pastoralist communities to invade these ranches, which in turn secures their cattle with grazing land (P3D5;P3D14). Moreover, local politicians also specifically target pastoralist communities for electoral gain. They use ethnic hate rhetoric towards white private landowners and incitement violence to invade these ranches to win the elections. An example of this is local politicians Mathew Lempurkel, MP for Laikipia is accused of inciting Samburu pastoralists to migrate to Laikipia and seize land, and register to vote to win the election (P3D21;P3D1;P3D13). This shows clearly the manipulation of ethnic grievances between white landowners and pastoralists in Laikipia to strengthen the position of the

politician during the election. Pastoralist communities are vulnerable to these tactics by politicians, as they are marginalised and feel forgotten by the state and seek recognition in the competition for resources and are thus easily influenced by politicians (P3D12).

7.1.2   National politicians

Figure 6 shows that national politicians use ethnic grievances mostly for electoral gain. National politicians use the conflict in Laikipia as a lucrative campaign topic to gain votes among their targeted audience (P3D31). Politicians targeting voters who feel threatened by the pastoralists create a negative perception of pastoralists. In several articles (P3D23), national politicians describe pastoralists as bandits, terrorists, and criminals to promote increased security forces in the region. This manipulation of ethnic grievances during election time gives the idea that politicians take the conflict seriously and work on solutions (P3D68). However, this only enhances the already existing tensions in the region and leads to more violence. News reports shown violent clashes between armed forces, ranchers, and herders (P3D16). The securitisation of the conflict allows for the ignorance of the underlying historical injustices that need to be addressed. Nevertheless, some national politicians promote cooperation with pastoralists to help solve the conflict (P3D76;P3D62). They point out that the 'white rich land owners' are the problem and that the pastoralists should be helped (P3D21). Still, the rhetoric politicians use to win votes is rooted in ethnic hatred. Moreover, there is no follow-up on the implementation of effective policy that addresses these land injustices.

7.2   Linkage to Political Ecology

This analysis aimed at explaining the role of politicised ethnicity in the conflict due to climate change. The findings also help answer the research question. It can be concluded that politicised ethnicity as a political factor plays a decisive role in turning the conflict due to climate change violent. This is because the manipulation by politicians of ethnic identities and

grievances for personal or electoral gain negatively impacts the ability to access and influence the distribution of resources by pastoralists. Moreover, politicians do not provide actual development and implementation of sustainable policy solutions, as this could endanger the position of politicians and it improves the position of rivals. This follows the political ecology theory, which argues that the trigger of conflict is politicised ethnicity. The last step, politicised ethnicity, can be linked to the causal mechanism of power relations in politics because power struggle of politicians during elections. This is also the missing link between the other steps in explaining the causal mechanism. It provides a reason why there is almost no cooperation between politicians and pastoralists to find sustainable solutions for the conflict. This relates to the negative perception of pastoralists created by politicians and the political obstruction to developing effective solutions for pastoralists on land policy. The need to manipulate ethnic grievances and identities for personal and electoral gain provides the link between the other factors.

8 Conclusion

This thesis explains the role political factors have in conflict due to climate change through the lens of political ecology. It analyses the role of perception of identity, access to land tenure, and politicised ethnicity in the farmer-herder conflict in Laikipia. The factor of perception of identity demonstrates that pastoralists are perceived as the aggressor and hostile towards conservancies and private and public security forces. However, pastoralists are also perceived as the victim. It is observed that politicians and government officials have the interest to secure Laikipia both economically and politically. This is linked to the second-factor access to land tenure. The analysis on access to land tenure shows that due to political obstruction and corruption by politicians and government officials the ability to access land tenure pastoralists is limited. Moreover, prominent land actors are unwilling to solve historical injustices and also support land grabbing. These results are linked to the last factor

politicised ethnicity. These findings demonstrate that local and national politicians manipulate ethnic identities and grievances for personal and electoral gain. As a result, politicians do not develop and implement sustainable policy solutions for the conflict.

The three steps all negatively impact the ability of pastoralists to influence and access the distribution of resources. This shows the larger causal mechanism at play: power relations in politics. The analysis supports political ecology theory, as it shows that political factors, thus power relations in politics have a direct influence on turning the conflict due to climate change violent. The alternative explanation of resource scarcity due to climate change is not completely rejected. However, this thesis denies the notion of a direct influence between conflict and climate change. Competition over scarce resources does not have to become violent if there is adaptivity and resilience against climate change. The findings show an indirect link that amplifies the existing political factors. The negative impact of the three factors all obstructs the ability of communities in Laikipia to influence the adaptivity and resilience to climate change.

The media and politicians often assume a direct link between climate change and conflict. However, this thesis has shown that the relationship is more complex. One should take into account the role of political factors. This thesis contributes to further developing the understanding of the relationship between climate change and conflict. This is helpful for policy solutions by IOs, NGOs, and governments. A specific policy recommendation is to focus on building resilience and adaptivity to climate change by strengthening political institutions.

There are several limitations to this research. The reliability and validity are quite low because of human coding. Moreover, the findings are based on national newspapers and reports. This could be a limitation, as some groups are not represented in these sources or sources are not

written in English. Therefore, interviews are suggested to fully comprehend the role of every actor in this conflict. This will give a more detailed description of the role of political factors in conflict due to climate change. Especially, a marginalised group such as the pastoralists will have a better opportunity to underpin or refute the findings of the research.

A recommendation for further research is to examine a comparative case study between two East-African countries. This is because studies that use political ecology theory also look at a single case study, similar to this thesis. A comparative case study will strengthen the findings, as the background of the cases can be completely different but have a similar outcome. Moreover, this thesis has shown the importance of addressing the underlying power relations in politics.

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10 Appendix: an overview of primary data

Political Factor	In-text reference	Document Type
P1: Perception of identity	P1D42	Nation, 5 June 2017
	P1D55	Nation, 4 July 2017
	P1D7	The Star, 26 May 2022
	P1D5	The Star, 17 September 2021
	P1D37	Nation, 3 April 2022
	P1D34	Nation, 28 November 2022
	P1D78	The Standard, n.d. 2017
	P1D60	Nation, 10 November 2017
	P1D3	The Star, 23 September 2021
P2: Access to land tenure	P2D105	The Standard, n.d. 2012
	P2D89	The Star, 25 January 2015
	P2D72	The Star, 21 July 2021
	P2D44	Nation, 4 October 2015
	P2D48	Nation, 7 February 2015
	P2D83	The Star, 17 August 2018
	P2D40	Nation, 28 October 2017

	P2D45	Nation, 14 August 2015
	P2D118	The Standard, 25 January 2014
	P2D42	Nation, 5 January 2016
	P2D39	Nation, 18 May 2016
P3: Politicised ethnicity	P3D6	The Star, 5 June 2017
	P3D5	The Star, 4 August 2021
	P3D14	The Star, 15 February 2022
	P3D1	The Star, 9 March 2018
	P3D13	The Star, 9 September 2021
	P3D21	The Star, 23 June 2017
	P3D12	The Star, 1 July 2017
	P3D16	The Star, 28 July 2021
	P3D68	The Star, 17 September 2021
	P3D31	The Star, 3 September 2021
	P3D76	The Standard, n.d. 2021
	P3D62	Nation. 28 July 2021