

Amsale K. Temesgen

Climate Change to Conflict?

Lessons from Southern Ethiopia
and Northern Kenya



Amsale K. Temesgen

Climate change to conflict?

Lessons from Southern Ethiopia and Northern Kenya

© Fafo 2010

ISBN 978-82-7422-722-4

ISSN 0801-6143

Cover photo: © Dagmawi Eyassu. www.dagmawie.com/

Cover design: Fafo Information office

Printed in Norway by: Allkopi AS

Contents

Acknowledgements	5
Executive summary	6
Introduction	9
Study area	13
Double-exposure conceptual framework	19
Worsening climate.....	23
Traditional institutions of resource management and conflict resolution	28
Policy environment	35
The influence of markets.....	35
Domestic government policy.....	39
Contextual environment.....	43
Environmental degradation	43
The culture of cattle rustling: the role of elders, women and youth in conflict	44
Rebel groups in the study area	47
Outcome: increased conflict and weakening of traditional institutions.....	49
Conclusion.....	51
Appendix I: Policy recommendations.....	53
Appendix II: Borana Oromo social organisation	57
Appendix III: Borana territorial organisation	58
Appendix IV: Sub-state conflicts in the Horn of Africa	60
Bibliography	65

Acknowledgements

I would like to thank the Ethiopian and Kenyan governmental and non-governmental institutions for the invaluable support I received while on fieldwork in Ethiopia and Northern Kenya. I would especially like to extend my gratitude to the following individuals: Dr Boku Tache Dida, Dr Abba Keno Kereyu, Ato Iwnetu, Dr Getachew Gebru, Dr Daniel Temesgen, Sentayehu Melese, Borbor Bule, Nuria Gollo and Alice Wasonga. The fieldwork would not have been possible without your support.

I would like to thank Morten Bøås for his valuable advice throughout the progress of the project and for reading and commenting on the report. I would also like to extend my deep gratitude for the constructive comments I received from Kassahun Temesgen and for the logistical support I received from Belaynesh Chekol throughout the fieldwork.

Finally, I am grateful to the Ministry of Foreign Affairs of Norway for its financial support, without which this report would not have been possible.

Executive summary

This report represents an attempt to understand the interplay between environmental/climatic factors and conflict dynamics in the Horn of Africa. It shows that climatic change and local political dynamics may intensify the competition for scarce water and pasture and the degradation of natural resources, and in the worst cases cause violent conflict.

Analysis of rainfall and conflict data in Southern Ethiopia shows that there is no clear and predictive pattern between the occurrence of drought and conflict. Conflicts break out in both drought and non-drought years; they take place during both the rainy and dry seasons. Although local communities perceive a trend of deterioration in the climate, historical accounts show that harsh climate is not a new phenomenon in the study area. Pastoralists have long developed customary institutions that help them pool resources across space and time in order to survive in their environment. However, outside influences bring in new dynamics that these institutions have not been designed to handle. These outside influences that affect resource sharing and conflict dynamics at the local level can be grouped into two main categories: environmental change and the change in the policy environment.

Although the deterioration in the environment and climate strains the capacity of pastoralists to adapt to their environment, droughts are not always followed by conflict. Analysis of meteorological and conflict data shows this. Customary institutions play an important role in managing resources to allow for survival in such a harsh environment. These customary institutions, developed through centuries of coping with a harsh environment, ensure the establishment and maintenance of relations between communities living in different ecological zones and at great distances, to spread the risk of being exposed to drought and diseases.

However, the decline of precipitation in the area and the associated environmental degradation strain these customary institutions. Outside influences such as those brought about by the policy environment add to this strain and cause frequent conflicts.

The policy shift from state-led to market-led paths of development over the last two decades has exerted its influence on pastoralist livelihoods through the spread of private ranches and, more recently, ranching cooperatives. The increasing local, regional and international demand for meat and the associated rise in the price of meat and cattle attract private entrepreneurs to prime pasture land. Large tracts of land are

given to investors to increase the supply of meat to the urban areas in Ethiopia and across international boundaries, especially to the Gulf States. The downside of this development for pastoralists is the loss of their communal grazing land and the threat that this poses to their customary institutions whose basic premise is the communal ownership of land.

Although the government promises to respect the right of pastoralists not to be displaced from their land, it also reserves the right to lease out what it considers 'wasteland' to private investors. Since the power to classify land lies with the government, pastoralists have ended up losing land to private investors. The emergence and expansion of private ranches inhibit one crucial coping strategy of pastoralists: mobility.

Other political processes in the study area have led to boundary disputes that have resulted in violent conflicts over the years. In Ethiopia, the politics of ethnic federalism has sparked conflicts among different ethnic groups and different clans within ethnic groups. In an effort to recognise the equal standing of all nations and nationalities to the extent of 'the right to self-determination', it has fuelled the race to control key resources. Although land is still government owned, delineation of land among ethnic groups is construed by pastoralists as an exclusionary right to the relevant pieces of land and all their resources. Consequently, since 1991, conflicts over resources have been intertwined with a quest for territorial control. In Northern Kenya, the competition among political elites from pastoralist communities to increase their political influence and expand their political constituencies has resulted in similar outcomes, albeit at a smaller scale. Although the political processes in the two countries are completely different in their characteristics and their objectives, they tend to produce similar results: deteriorating inter-ethnic relations.

The contextual environment where these policies exert their influence in is characterized by population growth, continued environmental degradation and a culture of cattle raiding. These factors exacerbate the situation, resulting in increased conflict, small-arms proliferation and weakened customary institutions.

The population of Borana, which was about 300,000 in the 1980s, reached almost a million in 2007 (Central Statistical Agency of Ethiopia 2007). In the Borana context, more people mean more livestock. The increase in the numbers of people and livestock has contributed to further deteriorate the environment.

Furthermore, various studies show that the Borana grasslands are on the decline. Factors that contribute to decreasing the size of grassland are land degradation, bush encroachment, termite invasion and change of land use to cropland. Bush encroachment and termite expansion are caused by the decline in precipitation and the banning of traditional land management practices. Croplands have increased, owing to the spread of farming activities among pastoralists themselves. As pastoralists cannot fully rely on their livestock any more, and need to compensate for the calorie loss when milk consumption falls, they have gradually adopted agro-pastoral lifestyles.

In many pastoralist cultures in the Horn of Africa, cattle-raiding is seen as a heroic deed. It is praised through songs and poems. Cattle raiding has been used as an important mechanism for restocking when pastoralist communities lose cattle through droughts, epidemic and conflict. This is true among the Borana, Gabbra, Turkana, Rendille, Samburu and Dasanach people, among others. However, with the realities of recent decades, this cultural practice has changed character. The spread of small arms has made this a deadly activity. The destruction and cruelty automatic weapons have introduced into the activity have triggered prolonged ethnic conflict and revenge attacks.

In conclusion, the paper shows that deterioration in the climate and environment, coupled with other social, political and economic factors that exacerbate scarcity, tremendously increases the likelihood of conflict. Although this study focuses on Southern Ethiopia and Northern Kenya as study sites, important lessons can be drawn for other parts of the continent with similar environments and modes of livelihood.

Introduction

The Horn of Africa provides a good case study for resource-related conflicts. Although the conflicts that dominate the media are most frequently conflicts between states (such as the border conflict between Ethiopia and Eritrea and the Ethiopian involvement in Somalia) or conflicts where there is a rather clear geographical demarcation (such as the conflict between North and South Sudan), there is a history of communal violence within and across borders. Most of these conflicts occur in the region's vast arid and semi-arid areas (Mkutu 2008).

The arid and semi-arid regions of the Horn of Africa are home to pastoralists, agro-pastoralists, sedentary agriculturalists, private ranches, national parks and various investment and development projects (Mkutu 2001; Jarso 2005; Dida 2008; Taye 2002). This means that these various actors have to share the resources available to them and interact with one another in safeguarding their day-to-day activities. With deteriorating climatic conditions and resource capacity, peaceful co-existence becomes even more important. Although conflict has always been a part of the lives of populations in arid and semi-arid areas, the frequency, intensity and destructiveness of the conflicts have increased as never before (Mkutu 2008: 3). Thus, it becomes essential to review the relationship between environment and conflict in light of the predicted effects of climate change for the region and on environmental degradation.

Social anthropologists provided the earliest accounts of pastoral conflicts. In their studies, emphasis was given to the ritual and symbolic dimensions of feuding and raiding between competing tribal groups (Almagor 1979; Hendrickson et al. 1996; Abbink 1998 in Hagmann and Mulugeta 2008). Violence is presented as an integral part of pastoralist life-worlds, with the purpose of 'regulating conflict and shaping individual and collective subjectivities' (Hagmann and Mulugeta 2008). Without addressing the influences of other factors that lead to conflict, these early interpretations of pastoralist conflict tended to 'normalise' violence as a pastoralist social organisation of fragmented kinship structure and segmentary clan politics (Edgerton 1972 in Hagmann and Mulugeta 2008).

Such normalisation of violence as a pastoralist lifestyle has been challenged by pastoralist activists, range ecologists and a younger generation of anthropologists. They criticise the discourse about the 'belligerent herdsman' (Bollig 1990) as one of the many negative stereotypes of pastoralists that have their roots in the failed colonial and

post-colonial attempts to subjugate nomadic communities (Umar 1997 in Hagmann and Mulugeta 2008).

Other popular explanations of pastoral conflict point to the role scarce resources play in fuelling conflict. There are two main schools that have pioneered the endeavour to demonstrate causal mechanisms between resource scarcity and conflict: those of conflict researchers at the University of Toronto led by Thomas Homer-Dixon and scholars associated with the Swiss-based 'Environment and Conflict Project' (ENCOP). According to the environment-conflict paradigm, unfulfilled demands for scarce water and pasture resources fuel conflict between pastoralist groups (Homer-Dixon in Hagmann and Mulugeta 2008). ENCOP researchers incorporate economic, social, and historical factors in addition to absolute and relative resource scarcity to explain conflicts in the Horn of Africa (Suliman 1999; Baechler 2002). Suliman (1999) states that '[m]ost violent conflicts start over material resources, actual or perceived. With the passage of time, however, ethnic, cultural, and religious affiliations seem to undergo a transformation from abstract ideological categories into concrete social forces.'

Scientists at PRIO criticise the alleged deterministic relationship between resource scarcity and violent conflict depicted by the environment-conflict schools (Gleditsch 1998; Matthew 1997; Gleditsch 2007; Gleditsch et al. 2002 in Hagmann 2005). They widened the analysis of environmental conflict by incorporating new ecologic and socio-political variables in statistical models applied in large cross-national tests. However, macro-level studies of the environment and conflict risk missing important local factors that influence pastoral reality, as these factors are rarely incorporated in national indicators or statistics.

The role the state plays in either fuelling or catalysing inter-ethnic conflicts is another angle some scientists have investigated (Dida 2008; Suliman 1999; Hagmann and Mulugeta 2008; Tadesse 2002). Kenya's multi-party political system and Ethiopia's politics of ethnic federalism (Dida 2008; Hagmann and Mulugeta 2008) have fuelled conflicts between neighbouring ethnic groups and between their political leaders.

Although the above-mentioned studies look at important aspects of pastoralist conflict, they do not adequately explain how these different factors work in unison and how they reinforce one another. When several factors operate at the same time, they often magnify the impact of each individual stressor and contribute towards the further deterioration of the environment in which pastoralists live. The responses pastoralists adopt towards external factors that threaten their livelihoods can in turn exacerbate the situation and result in violent conflict. This is a gap this paper attempts to fill by adopting a holistic approach and mapping out different stressors of pastoralist life that are at work. Such interaction of local, national and regional factors that influence pastoralist livelihoods and conflicts is difficult to analyse with statistical models, as these dynamics are difficult to convert to efficient indicators and indices. Although statistical models provide good insight into the relative weighting of various factors

that contribute towards conflict, they risk missing important cultural, political and social factors that cannot be converted into measurable indicators.

The area under study is located in the border area between Southern Ethiopia and Northern Kenya. The regions on both sides of the border share similar arid and semi-arid environments, the same dominant ethnic groups, similar culture and customary institutions.

The source materials for the study are both primary and secondary. The analysis makes use of reports produced by local and international NGOs working on pastoralist conflict in the region, precipitation and conflict data, papers and reports produced by academic and research institutions, and short qualitative fieldwork studies carried out in Southern Ethiopia and Northern Kenya to study the dynamics of pastoral conflict.

Study area

The study focuses on pastoral conflicts in the arid and semi-arid region in Southern Ethiopia and Northern Kenya¹. Two fieldwork studies were carried out in Borana Zone in Oromia Region in Southern Ethiopia, while one fieldwork study was conducted in Marsabit District in Northern Kenya². The pastoralists inhabiting these regions share similar livelihoods, cultures and histories. They have engaged each other in resource management for centuries; they have fought each other and made alliances (Mkutu 2008). They have these interactions regardless of the international boundary that separates them (interviews with community elders at Torbi Centre in Northern Kenya).

Short qualitative fieldwork studies were conducted in three districts in Borena Zone (Ethiopia): in Yabello, Bule Hora and Dire. In Northern Kenya, fieldwork was conducted in the trading centre of Torbi and the town of Marsabit in Marsabit District. Borena Zone measures 95,740 km² and has a population density of approximately 20 people per km² (Central Statistical Agency of Ethiopia 2007). Marsabit District is the largest district in the country, covering an area of 66,000 km² and with a population density ranging between 1 person per km² and 22 people per km² (Ministry of Planning and National Development of Kenya 2009). In contrast to Borena, Marsabit is a low-lying district with altitudes ranging between 300 m and 900 m above sea level and rainfall varying between 200 mm and 1,000 mm per annum (Ministry of Planning and National Development of Kenya 1996). Population density is higher in elevated areas that have favourable soil conditions and higher precipitation. About 80 percent of the total population are pastoralists and derive their livelihood from livestock and livestock-based industries, while about 10 percent of the population practice subsistence agriculture and reside mainly around Mount Marsabit (Ministry of Planning and National Development of Kenya 2009).

Borena is characterised by a semi-arid environment and lies in an altitudinal range of 1,000 m to 1,500 m above sea level³. The area is sparsely populated, with flat and

¹'Conflict' in this paper refers mainly to violent conflict. When incidents involve only tensions, disagreements or feuds between groups, these will be referred to as such.

²Oromia accounts for 36 percent of Ethiopia's population of 74 million and is therefore the largest region in terms of population.

³In this paper, the names Borena and Borana will be used interchangeably.

undulating features. Acacia shrub and grassland represent the dominant vegetation. The mean annual rainfall is below 600 mm (Dida 2008).

In the study area, there are four locally defined seasons, comprising two rainy seasons and two dry seasons. The dry season comprises the long dry season and the short dry season, while the rainy season is divided into the long rains and the short rains (Dida 2008; Office of the Prime Minister of Kenya 2009). In normal years, in Ethiopia, the long rains are expected between the months of March and May and the short rains between September and October (Dida 2008). In Northern Kenya, the long rains last from April to June, while the short rains last from November to December (Office of the Prime Minister 2009). Although the timing of these long and short rainy seasons is often irregular, the long rains are more predictable than the short rains in their amount and spatiotemporal coverage (Dida 2008). The long rains account for 60 percent of the total annual rainfall, while the short rains account for only 30 percent (Sutter 1995 in Dida 2008). The remaining 10 percent comes from occasional rains that provide sporadic relief reducing the progress of dry-season stress. They make inter-seasonal transition easier for both human and livestock populations (Dida 2008). Of the three rainfall regimes, the failure of the long rains has the direst consequences. The long rains come after the long dry season and therefore their failure makes the population and livestock extremely vulnerable (Dida 2008).

The availability of water and pasture differs greatly from season to season in such arid areas. As a result, mobility of livestock is crucial for sustainable utilisation of the available water and pasture. The movement of livestock during normal times differs from that in difficult times. In normal times, pastoralists stay close to their localities, as they get the desired amounts of water and pasture nearby (interview with Dr Abba Kanno). However, during the long dry season, they migrate farther away from their homesteads. In times of drought, distances covered become even greater (interview with Chief Abudo Godana). Pastoralists cross borders and travel deep into neighbouring country in search of resources. During such times, allies and previously established ties become crucial. Border communities (especially the Borana, the Gabbra and the Gerri) in Ethiopia and Kenya have their wet-season grazing in Kenya, as surface water sources (ponds, lakes and rivers) are still available, whereas they have their dry-season grazing in Ethiopia, since the Ethiopian Highlands are generally wetter and have a complex of deep wells that can support livestock and people during the dry season (Wachira 2009).

Young animals and calves stay close to the home all year around. The division of labour is such that able-bodied young men (between the ages of 17 and 24) travel long distances in search of pasture during the long dry season (Taye 2002). Younger boys (between the ages of 6 and 16) take care of young animals that do not travel far. The youngest animals stay at home and are the responsibility of the women and young

children of the family (Taye 2002). See Appendix II for an overview of the age sets and related responsibilities of the Borana.

The movement of animals in different seasons is arranged to ascertain the availability of pasture throughout the year. During the rainy season, cattle stay close to the homestead or in designated wet-season grazing areas, to give the dry-season pasture located farther away the opportunity to regenerate. When the pasture closer to home dwindles, the cattle are taken away from home, feeding on the pasture that has regenerated through the rainy season (interview with Dr Abba Kanno).

Water sources are surface water sources such as ponds and rivers (used during normal times when there is adequate rain) and deep wells or *ellas* in Borana (complex structures that make use of underground water). In most cases, animals and people share the same water resources (Dida 2008). The Borana immensely value their *ellas* and, through customary institutions, use them prudently. When water is scarce, cattle are taken to the *ellas* once every 1–3 days, depending on the availability of water, and with a view to accommodating all the cattle in the area while maintaining the sustainability of the water points (interviews with Borbor Bule).

The four largest ethnic groups in Borana Zone are the Oromo (Borana, Gabbra, Guji), Gedeo, Amhara and Somali people (Central Statistical Agency of Ethiopia 2005). The Borana Oromo are numerically the dominant group. The Amhara, Gedeo, Burji and Konso are settlers, live in and around towns and are engaged in trading and farming activities (Edossa et al. 2005). In Marsabit District, the main ethnic groups are the Borana (32 percent), Gabbra (24 percent) and Rendille (20 percent), while smaller ethnic groups living in the district are the Turkana, Samburu, Sakuye and Burji (Ministry of Planning and National Development of Kenya 1996). The Borana and Gabbra living on both sides of the border are related and often turn to their relatives across the border during hard times (interview with the chief of Torbi Centre in October 2009).

Figure 1 Location of study area



These ethnic groups share resources and frequently get into conflict with one another. The causes of conflict are diverse, some of the most frequently mentioned reasons include competition for resources, boundary conflicts, political differences, historical grudges and the like. The major conflicts are outlined in Table 1.

Conflict can easily start if young men travelling with their herds enter other groups' territories or farms without prior approval. However, the general picture of conflict in the area is more complicated than conflict between men herding cattle. A study carried out by Care Ethiopia outlines eleven conflicts in Borana Zone. In Teltele District, the Borana frequently enter into conflict with other pastoralists (the Hamar, Walta and Erbore) and sedentary farmers (the Konso) (CARE Ethiopia 2008). In the north, there is conflict between the Borana and the farming communities of Gedeo and the agro-pastoralist Guji. In the east and south, the Borana are in constant conflict with the Somali Garri clan and the Gabbra. The Gabbra, who are also pastoralists (focusing mainly on camel), are party to one of the long-lasting conflicts with the Borana. Since

Table 1 Conflict typology

Actor 1	Actor 2	Geographic area	Reason for conflict
<p>Borana (agro-pastoralists with some cultivation)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle - Have recently started diversifying into camels 	<p>Guji (agro-pastoralists)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle 	North Borena, Ethiopia	Border dispute under ethnic federalism
<p>Borana (agro-pastoralists with some cultivation)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle - Have recently started diversifying into camels 	Burji (farmers and traders)	Central Borena (towards Teltele), Ethiopia	Conflict over cultivated land
<p>Guji (agro-pastoralists)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle 	Burji (farmers and traders)	Burji is a special district situated within Borena Zone. Guji borders with Burji, Ethiopia	Conflict between farmers and agro-pastoralists over farmland
<p>Borana (agro-pastoralists with some cultivation)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle - Have recently started diversifying into camels 	Konso (farmers)	Border between Oromia and SNNPR, Ethiopia	Conflict between farmers and agro-pastoralists over farmland
<p>Borana (agro-pastoralists with some cultivation)</p> <ul style="list-style-type: none"> - Mainly specialising in cattle - Have recently started diversifying into camels 	Garri (camel- and shoat-rearing pastoralists, increasingly diversifying to cattle)	Border area between Oromia region and Somali region, Ethiopia	Boundary conflict under ethnic federalism Conflict over water wells and pasture land
<p>Borena (pastoralists specialising in cattle and gradually diversifying into camel)</p>	Gabbara (pastoralists specialising in camel)	South Borana Zone, Ethiopia Marsabit District, Northern Kenya	Request by Gabbara to establish administrative <i>kebele</i> (district) Historical competition over land and water Competition for political office between political elites
<p>Borena (pastoralists specialising in cattle and diversifying slowly into camel)</p>	Rendille (pastoralists specialising in camels and small stock)	Marsabit District, Northern Kenya	Raids by Borana from Ethiopia and Northern Kenya Cattle raiding by Rendille, especially after circumcision rites

the Gabbra are found across the border in Kenya, conflict between the Gabbra and the Borana frequently spills across the border (CARE Ethiopia 2008).

In Northern Kenya, the Borana and Gabbra have been in conflict since the mid-1990s. The conflict escalated to a massacre in Torbi Centre in Marsabit District in July 2005 (CEWARN 2005). It is claimed that the Borana of North Kenya and Ethiopia joined forces to attack the Gabbra residing in Torbi Centre (interview with Chief Abudo Godana). Fifty-six people, the majority of whom were women, children and elderly people, perished in this incident (CEWARN 2005; interview with Chief Abudo Godana).

These conflicts have historical, social, economic and political dimensions. Drawing on the conceptual framework of double exposures, the various factors that directly and indirectly exacerbate tensions and conflicts in the regions will be explored in this paper.

Double-exposure conceptual framework

The concept of double exposures (Leichenko and O'Brien 2008) is used to analyse resource conflicts in Southern Ethiopia and Northern Kenya as it recognises the complex nature of social, political and economic outcomes in remote parts of the world. See Fig.2. The framework recognises that certain outcomes we see at the local level stem from local, regional and global dynamics.

In accordance with the framework of double exposures, two forces (also referred to as 'stressors') are identified as influencing pastoralist livelihoods but are outside the control of the pastoralists themselves. These are worsening climatic factors and the policy environments. In the context of the Horn of Africa, prolonged and frequent droughts and unpredictable rainfall patterns rob pastoralists of their only capital, their livestock. The effects that these frequent and devastating droughts have on pastoralist livelihoods, and pastoralist responses to them, serve as a good lesson on what we can expect when the detrimental effects of climate change start to kick in.

The policy environment can be seen at different levels. On one level, national economic policies (which have higher economic growth as their main goal) impinge upon pastoralist livelihoods. The push towards market-oriented development paths by international financial institutions (Rankin 2001; Goode and Maskovski 2001; Harvey 2003) has had negative consequences for local communities. In Ethiopia, policies aimed at encouraging private investment and entrepreneurship have translated into loss of crucial dry-season grazing areas, particularly in the Afar and Oromia Regions (interview with Daniel Temesgen, Pastoralist Ethiopia Forum). In Borana Zone, thousands of hectares of pasture land are handed over to private investors, disturbing the seasonal migration of pastoralists and reducing available pasture land (interview with Boku Tache Dida; Jarso 2005). The emerging trend of establishing ranching cooperatives in Borana Zone is also a sign that private property regimes are infiltrating pastoralist customary institutions whose foundation is communal property regimes (interview with Boku Tache Dida). These two aspects intensify the competition among pastoralists for land and water.

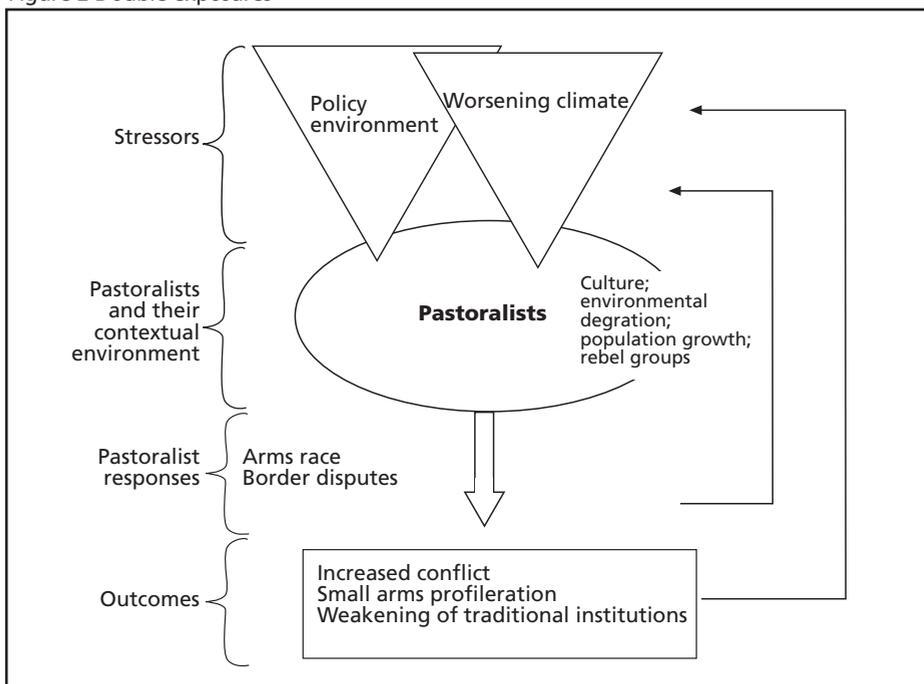
The increasing local, regional and international demand for meat and the associated rise in the price of meat and cattle attract private entrepreneurs to prime pasture land. The problem arises when these demands for pasture land are met through the annexation of crucial pastoralist grazing land. The policy shift from state-led to market-led paths of development over the last two decades has therefore exerted its influence

on pastoralist livelihoods through the spread of private ranches and, more recently, ranching cooperatives.

On another level, political processes in the study area have led to boundary disputes that have resulted in violent conflicts over the years. In Ethiopia, the politics of ethnic federalism has sparked conflicts among different ethnic groups and different clans within ethnic groups (Dida 2008; Hagmann and Mulugeta 2008). In Northern Kenya, the competition among political elites from pastoralist communities to increase their political influence and expand their political constituencies has resulted in similar outcomes, albeit at a smaller scale (CEWARN 2005). Although the political processes in the two countries are completely different in their characteristics and their objectives, they tend to produce similar results: deteriorating inter-ethnic relations.

These stressors operate in the contextual environment of population growth, continued environmental degradation and a culture of cattle raiding. These factors exacerbate the influence of the stressors mentioned above, resulting in increased conflicts, small-arms proliferation and weakened customary institutions. Pastoralist responses to such outcomes are reflected in an increased arms race and endless border disputes to attain unchallenged access to land and water.

Figure 2 Double exposures



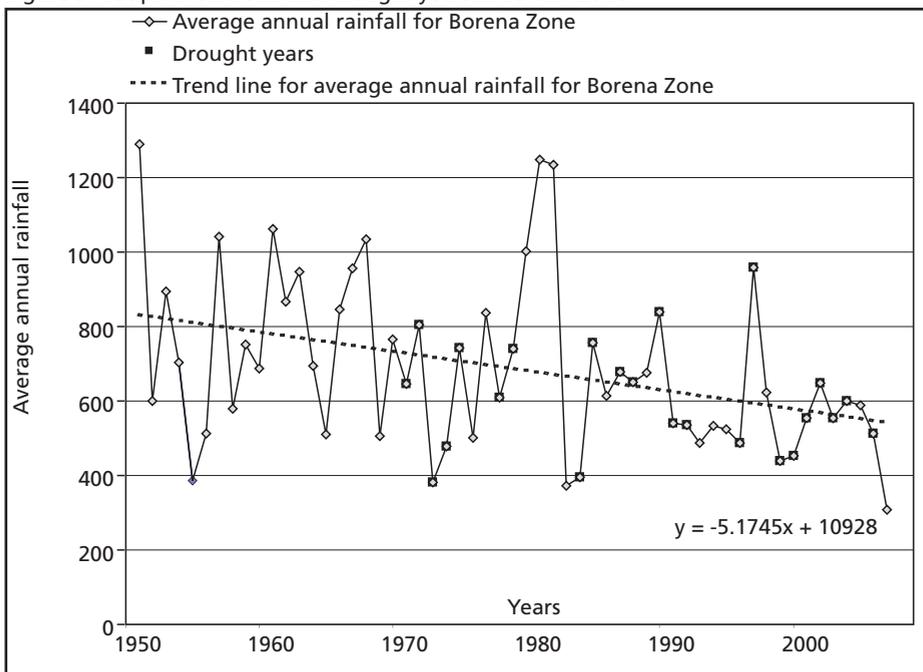
Source: Leichenko and O'Brien 2008

Each of the above-mentioned components of the framework will be explored in detail in the following sections. The outside influences of environmental change and worsening climate will be discussed first. The first section will also discuss the customary institutions that have historically helped the Borana to cope with the harsh climate of the region. The policy environment section will explore the influence of private investment in pastoralist areas and the politics of ethnic federalism. These two 'stressors' will be situated in the cultural, historical, political and social context of the border area between Ethiopia and Northern Kenya. Finally, the conclusion summarises the findings of the study, proposes areas for policy interventions and identifies future research needs.

Worsening climate

In the Horn of Africa, climate change is likely to lead to a reduction in the amount of precipitation and loss of soil moisture owing to changes in precipitation and evapotranspiration. According to the synthesis report of the IPCC (2007*b*), between 75 million and 250 million people in Africa are projected to be exposed to increased water stress by 2020. NGOs working on the ground are signalling that the climate in the Horn of Africa seems to be drying out. Oxfam, in its contribution to the Stern Review, stresses that droughts have become longer and more frequent, while the rains are less predictable. As a result, pastoralists do not have an adequate time gap between any two consecutive droughts to recover and prepare for the next (Oxfam 2005). In 2006 alone, a prolonged drought wiped out about 70 percent of the livestock owned by pastoralists across the Horn of Africa (Milmo 2006).

Figure 3 Precipitation trend and drought years in Borena Zone



Sources: National Meteorological Agency of Ethiopia 2008; Google News Archive on drought

The trend of rainfall in Borana Zone shows a steady decline in precipitation over the past half century (see Fig. 3⁴). Droughts do not necessarily coincide with low levels of rainfall. Lack of rain translates into humanitarian crisis (that is, drought or, in extreme cases, famine), when rains fail for more than a year and available pasture is severely depleted (interview with Dr Getachew Gebru). Cattle become weak and the odds of survival with no immediate assistance are diminished. For example, the good rains of 1997 did not help the people and livestock that suffered from the lack of rain during the previous six years, and therefore, we see the year 1997 identified as a drought year (see Fig. 3). Building up cattle stocks and savings decimated during difficult years takes time and, as a result, the consequences of drought years persist after droughts strike.

The Borana have recorded the droughts that have ravaged their livelihood in previous centuries. Each drought is associated with the contemporary leader of the Borana (or the *Abba Gadaa*). Some of the *Abba Gadaa*'s that experienced drought are listed in Table 2. Local communities consider droughts to be ordained by God, and as humans, there is little they can do to influence the climate (interview with Abudo Guyo, an 80-year-old elder). However, they acknowledge that times have become hard. Droughts, which used to occur once in the reign of an *Abba Gadaa*, now occur more frequently⁵ (interview with Borbor Bule).

The Borana still remember the first time they received aid. Norwegian Church Aid was the first foreign organisation to come with humanitarian assistance, under the leadership of Haraldur Olafsson. Hence, the era is locally called the era of Haraldur's maize (Taye 2002).

Table 2 Droughts recorded by the Borana

Reign of Abba Gadaa	Name of Abba Gadaa
1769–76	Bulee Dhaddachaa
1809–16	Saaqo Dhaddachaa (only 30 cattle left)
1969–76	Gobbaa Bulee (drought relief for the first time)
1977–84	Jiloo Aagaa
1985–92	Boru Guyyo
1993–2000	Boru Madhaa (drought struck twice)
2001–8	Liban Jaldeessa (drought struck twice)

The table here depicts the names of the leaders of the Borana (*Abba Gadaas*) that experienced drought. The years show the start and end of the reign of each contemporary *Abba Gadaa*. In the periods preceding 1993, drought struck only once during the reign of each *Abba Gadaa*. This changed after 1993. In 1809–16, there was the epidemic of rinderpest, in addition to the drought that wiped out most of the cattle of the Borana.

⁴The rainfall trend is calculated from an average of four *woredas* in Borana that are found at different locations with varying altitudes and climatic conditions: Yabello (Northern Central), Teltele (West), Mega (South) and Moyale (South).

⁵The reign of one *Abba Gadaa* lasts eight years.

Local communities also observe that the rains either start late or stop early, affecting the volume of local lakes and deep wells. Shala Lake in the Rift Valley in Ethiopia has drastically shrunk (interview with Al'Amin Shegto). Lake Paradise on Marsabit Mountain in Northern Kenya has completely dried up (interview with Orge Guyo from the NGO Community Initiative Facilitation and Assistance – CIFA). Both lakes are perennial lakes that used to supply water throughout the year. When rivers and lakes dry up, pastoralists turn to deep wells. However, these wells are also deteriorating in capacity. Bore wells in Golole, Uran, Ramolle and Woye Goda in Northern Kenya that used to sustain up to 2,000 cattle a day in the dry season currently have very limited capacity (interview with Orge Guyo).

Although droughts have become devastating for the local population, the link between resource conflicts and droughts is not clear. There are two contending arguments that link conflict with droughts. The first is that conflicts occur when pastoralists compete for scarce resources during drought. The conflict that took place in Kenya's Isiolo District in 2005 is a case in point. Conflict erupted between pastoralists after the drought led to the migration of approximately 10,000 herders with over 200,000 cattle to the riverbed traditionally used for watering animals during the dry season (Working Group on Climate Change and Development 2006). The customary regulation of the use of the riverbed broke down under the immense pressure, which resulted in violent conflict.

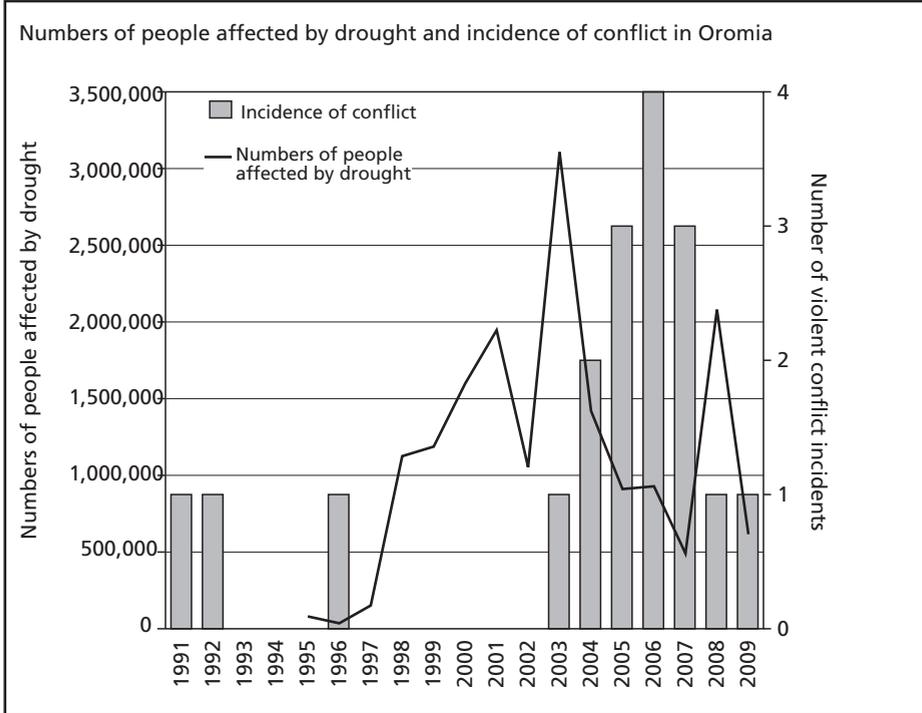
The opposing argument states that conflicts do not occur during drought, because during such hard times, pastoralists are most concerned with saving as much of their livestock as possible from devastation and they do not have extra resources to devote to conflict. During such times, buffer zones are respected and there is little likelihood that conflict will break out (interview with Gofu Oba). Reference is made to historical accounts according to which conflicts used to break out during or after the rainy season, when cattle are well fed and are prime assets to be raided by neighbouring ethnic groups (interviews with Nuria Gollo and Tune Ali). Current trends show that cattle are raided even when weak and emaciated (interviews with Nuria Gollo and Rael Getacho).

One way to investigate whether there is a relationship between droughts and conflict is to look at the two processes (droughts and conflict) and see whether there is an indicative pattern. When one compares data on the numbers of people affected by drought in Oromia (an indicator of the incidence and severity of drought) with available data on conflict, one does not find a clear and consistent pattern⁶. See Fig. 4.

⁶ Conflict data is extremely hard to access. There is no authority or governmental body devoted to collecting and recording conflict data in the study area. Moreover, local government offices that may have the data are reluctant to share it as it is considered sensitive material. As a result, the data used here is collected from interviews with local community and NGO workers, the Oromia office and news archives on the Internet. However, this does not guarantee that the data depicted here is exhaustive. Therefore,

Although there seems to be a delayed correlation between conflict and drought years, there are discrepancies in the temporal distribution of conflicts. Conflicts do not necessarily follow occurrences of drought.

Figure 4 Numbers of people affected by drought in Oromia and incidence of violent conflict



Sources: Data on numbers of people affected by drought is acquired from the Disaster Risk Management and Food Security Sector at the Ethiopian Ministry of Agriculture. Conflict data is collected from the Uppsala Conflict Data Program (UCDP), the Oromia Bureau of Security and Administration and the Google News Archive on conflict.

Figure 4 shows data on a yearly basis. Another approach is to look at the pattern of conflict during different seasons. As the year is divided into rainy and dry seasons among pastoralists, if there is any predictive pattern of resource conflicts that match climatic trends, one will find it by looking at the different seasons of the year. If we look closely at the years 2005 (drought-free year) and 2006 (drought year), we find that conflicts occurred during the dry and wet seasons in both years. See Figure 5 and 6.

caution should be taken here in the further use of this data. There are new initiatives being taken to collect and record conflict data in an organised manner. The Conflict Early Warning and Response Network (CEWARN) established by the Intergovernmental Authority on Development (IGAD) is one example and needs to be encouraged.

Figure 5 Monthly rainfall and incidence of conflict 2005

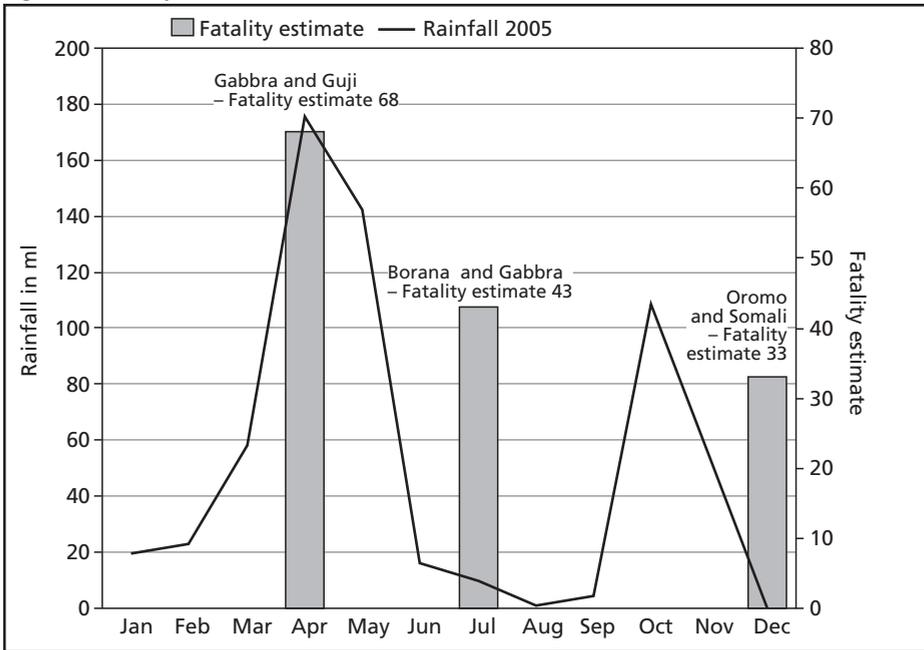
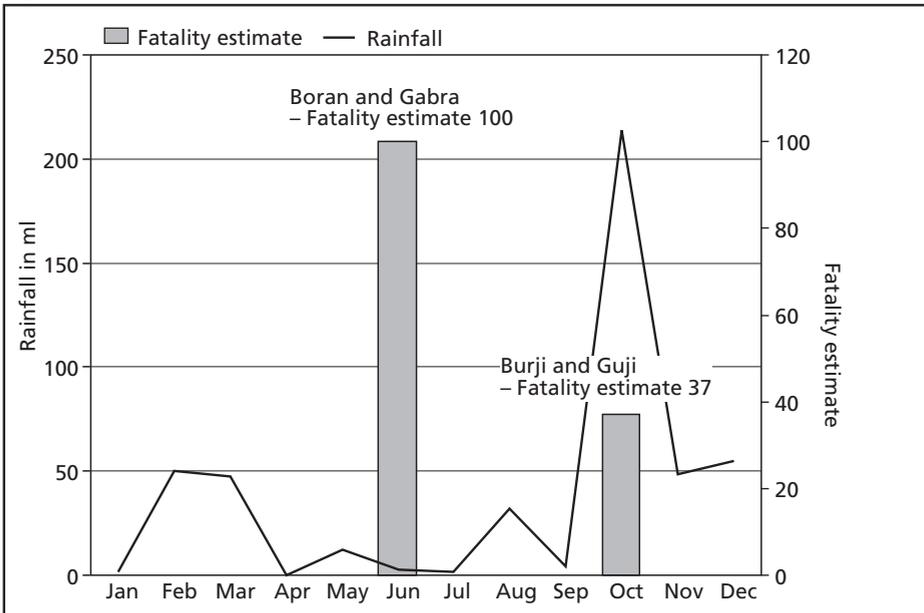


Figure 6 Monthly rainfall and conflict incidences 2006



Although there is a lack of a clear and consistent correlation between rainfall and the incidence of conflict, the influence of scarce resources on conflicts should not be underestimated. Neighbouring groups that live amicably side by side can enter into conflict when resources are scarce and they are forced to cross borders to secure their livelihoods. An example is the conflict that occurred between the Borana and the Konso in 2007. The Borana are pastoralists while the Konso are farmers. They are neighbours and have common grazing lands along the border between the two communities. After the drought of 2006, both communities struggled to cope with reduced resources. The Borana are mobile and can cover larger areas in search of pasture. However, the Konso, with their sedentary lifestyles and the growth of their population, are pressed for resources.

After the drought of 2006, the Konso needed more land to increase agricultural production and meet the needs of their community. Consequently, they resorted to clearing parts of the grazing area they shared with Borana pastoralists and cultivating the land at night. When the Borana discovered that the grazing land had been cleared and converted to cropland, they herded their cattle over the harvest. This provoked the Konso, and in October 2007, conflict finally broke out between the two communities for the first time in their long history. The Borana report that they lost thirty men in the conflict (interviews with Sebele Aleku and Guyo Boneya).

This conflict was a source of confusion for local authorities and NGOs as the two communities had lived amicably until then. In the past, the Borana used to cross over into Konso land for spiritual purposes and Konso handicraft was used as ornamentation for the *Abba Gadaa* (interviews with Dr Abba Kanno and Did Liben).

In spite of the above examples of conflicts that arise owing to competition for resources, there are local factors that mitigate the occurrence of conflict as a result of resource scarcity. Customary institutions developed through centuries of coping with a harsh environment ensure the establishment and maintenance of relations between communities living in different ecological zones and at great distances, to spread the risk of being exposed to drought and diseases. Establishing a relationship with a neighbouring clan and/or ethnic group ensures the survival of a community.

Traditional institutions of resource management and conflict resolution

Pastoralist communities have developed elaborate customary organisations that serve the joint purposes of resource management, social security and conflict resolution. To understand why conflicts do not follow every drought occurrence, one needs to understand how pastoralists use their institutions to manage and share resources within their own communities and with neighbouring ethnic groups. The *Gadaa* institution of the Borana is a good example that intertwines the objectives of resource management with the maintenance of peaceful coexistence⁷.

The Borana established themselves as a regional power in the Dire Plateau of Southern Ethiopia in the seventeenth and eighteenth centuries. They assimilated local groups residing in the area and expelled those that refused to be assimilated. The Borana succeeded in establishing themselves as the dominant group because of their advanced social organisation under the *Gadaa* system and their military wing of mounted cavalry, the *raaba* (Wario 2006).

The Borana designed customs and laws (*aada seera*) for managing pasture and water resources. All allies and neighbours of the Borana were required to adhere to the law to maintain ‘peace and tranquility’ (Wario 2006). The adherents of the *aada seera* were, therefore, considered to have joined the fold of the Borana. This granted them full access to the grazing areas and the waters of the *tula* wells of the Borana. *Tula* wells are deep wells and are administered by ‘well-owning clans’ among the Borana. Without these wells, life in the Borana Plateau of Southern Ethiopia would not be possible. Only groups and households that have permission to use these wells have access to them and trespassing on these resources is not tolerated.

Gadaa is a system of age grades that follow one another every eight years in assuming economic, political and social responsibilities. The system is only for the men of the community and excludes women. Men will be assigned different grades according to their ages and will be given responsibilities, from looking after small animals near their homes at early ages to managing the political affairs of their communities (in the 41–8 age group). See Appendix II for more details of the social organisation of the Borana.

Borana pastoralists settle in communities around the resources of pasture and water. The *ollaa* is the smallest unit of settlement and consists of 30–100 households. Each *ollaa* will have a head who represents this group of households. A small group of *ollaas* (not more than 2–3) called an *araddaa* will cooperate in their grazing patterns and may jointly delineate or fence off grazing area for calves. A wider unit of grazing land used by different *ollaas* and *araddaas* will be administered by a council of elders.

⁷The words ‘Geda’, ‘Gada’ and ‘Gadaa’ are used interchangeably in this paper.

These elders will be consulted and asked permission before outsiders make use of the grazing area. A grazing area will usually have a source of water and the man who has founded or excavated the water source, or his descendants, will have authority over the water source. A pond or well will be under an assigned authority that ensures its maintenance and use (Edossa et al. 2005). See Appendix III on the geographic organisation of the Borana.

The institution of conflict resolution is closely linked with the institution of resource management. Whenever two groups compete for the same resource and enter into conflict, the Gadaa system is applied to resolve it. As persistent droughts and environmental degradation have reduced the availability of viable pasture, tension arises during periods when resources are scarce. Traditionally, when there is not enough pasture, herders bring their cattle to areas where water and pasture are available and negotiate grazing rights. Decisions are made on the basis of the availability of forage and the number of cattle already using the areas.

There are different forms of institutional arrangements whereby the Borana share resources with neighbouring ethnic groups. Some of the institutions help the Borana during covariate shocks (which affect the whole community) by creating links with communities that are located in different ecological zones and are not affected by the same unfavourable climate or diseases. Other institutions serve as safety nets for individual households when shocks are idiosyncratic (limited to specific households within the community) by redistributing assets from relatively well-off households to households that are struggling. The contribution of cattle from well-off households to those without any maintains peace and stability within the community.

An example of an institution that serves as a safety net against covariate shocks is the institution of *tirriiso*. The word *tirriiso* refers to adopting/accepting someone into the tribe as a son (Wario 2006). The Borana shared this relationship with the Gabbra. The Gabbra are nomads who specialise in camels and mainly inhabit lowland areas suitable for managing camels and small stock, while the Borana have preferred wetter, highland areas suitable for cattle. The Gabbra were among the adherents of the laws and customs of the Borana and enjoyed the full privilege of using crucial grazing and water resources found in Borana lands.

Neighbouring ethnic groups that enter into such relationships get to utilise Borana pasture and water while maintaining their own identities and cultures (Wario 2006). This privilege, however, comes with responsibilities. They have to contribute towards labour-intensive activities such as maintenance of wells and herding of cattle, as well as repelling attacks and providing protection during conflict. An ally is a crucial asset to have when one is protecting one's village from raids. In addition, ethnic groups benefit from and become part of the Borana safety network, where resources are shared among households and clans during difficult times.

The Borana utilised this safety net in the nineteenth century, when they suffered significant cattle losses owing to the epizootic rinderpest disaster. See Table 2. The disease killed most of the Borana's cattle while the Gabbra camel economy was unaffected. The Borana sent a delegation of spiritual leaders who invoked these ties to request livestock from the Gabbra. The Gabbra named the year 'the Wednesday year when the camels were collected and given to the [Borana]' (Wario 2006).

The Gabbra utilised the alliance with the Borana to defend their territory when they were attacked by the Kibiya of the Laikipiak Maasai (in alliance with the Rendille and Samburu). The Laikipiak Maasai spread into the lowlands of Northern Kenya and displaced the Gabbra and Borana who had occupied this area. The Borana and Gabbra joined forces and repelled the Laikipiak (Wario 2006).

The institution of *jaala* establishes a network households and clans fall back on during hard times (Taye 2002). Marriage is one mechanism for establishing social and economic relations with other groups. Moreover, a household may deliberately create and nourish a relationship with another household in its own community, or another ethnic group, for the sole purpose of creating a safety net. The Borana have such relations with the Guji (a sub-moiety of the Oromo tribe occupying the administrative district adjacent to that of the Borana) (Taye 2002). The different ethnic groups residing in the study area set great store by creating and nurturing *jaala* relationships with their neighbouring groups (interview with Dr Gemechu Megersa). These relationships involve sharing resources, loans of labour, and the reciprocal exchange of gifts. In addition, through such a relationship, there is an exchange of knowledge and information between the two groups with regard to the use of resources.

During the nineteenth century disasters of drought, epizootic rinderpest and smallpox outbreaks, Borana households with *jaala* relations with the Guji and other Borana clans utilised this institution and took refuge with those of their neighbours unaffected by these disasters (Taye 2002). Some Borana clans migrated and joined their kin in Northern Kenya. In recent times – for example, during the drought of 2000 – Borana households have contacted their Guji neighbours less affected by drought and migrated to Guji land with their cattle. Guji households acknowledge that they do the same when their area suffers from lack of rain (Taye 2002).

Examples of institutions that provide safety nets among households within a clan (against idiosyncratic shocks) are the institutions of *dabaree*, *buusa* and *gonofaa*. Each clan has the responsibility of taking care of its members. Clans that fail to do this and let their members languish in poverty will face rebuke from other clan leaders during assemblies that convene once every four years (interview with Did Liben). The Borana recognise that, in the harsh environment they occupy, a material asset is only an illusion. There is a saying that equates property to 'a passing cloud' or 'a perishing dew' (Taye 2002). It is strong kinship and network that can be relied upon during

hard times. Therefore, there are systems which ensure that care is taken of the weaker members of society.

The dabaree institution makes sure those households that do not have their own stock get to borrow cattle from wealthier members. Poorer households have the right to claim a certain number of cattle from other members of their clan, although this privilege does not extend to households outside the clan (Taye 2002). The recipients of the cattle must take care of them; otherwise, the clan can reclaim the cattle and give them back to the original owners.

The dabaree institution serves both the donor and recipient. If the cattle are given away to a household that resides at a distance from the village, then the cattle are protected from diseases and droughts that occur in the village. They will then be an investment that can later be reclaimed if the need arises (Oba 1994 in Taye 2002). Dabaree donors gain social capital and prestige, which are important assets in terms of wielding influence within the clan. Dabaree recipients gain access to assets they otherwise would not. As long as the recipients treat the cattle well, the custom is flexible as regards the purpose for which they use the cattle. They can use the cattle's milk, slaughter the cattle for ceremonial purposes and/or even – with the donor's consent – sell the cattle (Taye 2002).

The most common types of dabaree are milk cows and breeding bulls. However, camels can also be given as dabaree. A Gabbra elder in North Kenya spoke of providing eight lactating camels to his Borana neighbour who had children but no milk-providing camels in the period before the Borana-Gabbra conflict of 2005. The Gabbra elder realised that he had lost his camels after the massacre of July 2005, when the Borana villagers fled the area. In 2009, when the conflict between the two communities had calmed down, the Gabbra elder saw five of his camels in the distance and obtained a guarantee from his former neighbour that the five camels would be returned to him (interview with Ibrae Guyo).

Through the institution of *buusa*, households contribute milk and meat to households that do not have any livestock. The cattle that a household have may not provide enough milk for a family, for various reasons. In this case, clan members have a moral obligation to share the milk they have with the family struggling for want of milk. As the main sources of nutrition among pastoralists are milk and meat, this institution provides a mechanism for ensuring that poorer households and their children do not suffer from malnutrition. During difficult times, clan elders get together and decide which well-off households in the village should slaughter animals and provide for selected poorer members of the village (Taye 2002).

The institution of *gonofaa* is an obligatory social-security system whereby richer households contribute cattle to poorer households for slaughter during ritual ceremonies. The *hayyuu* and *abba qa'ee* are among the community leaders responsible for implementing the *buusa-gonofaa* rules. In particular, the *abba qa'ee* is responsible for

organising *buusa-gonofaa* meetings where all clan leaders come together and redistribute cattle to poorer households from richer ones (Taye 2002). The rules are hard on those who have lost their cattle through mismanagement or negligence. Consequently, these members do not benefit from such redistribution of cattle (Taye 2002).

The customs and rules of the Borana state that the minimum number of livestock needed for a household's needs is five. The leaders of the community (the hayyuu and abba qa'ee) know how many cattle community members own and will enforce transfer of livestock from members who have extra to those who have none (Taye 2002). The immediate family members of needy households are expected to help first. If that is not enough then the different lineages within the clan assess their cattle holdings to gather cattle that can be contributed to these particular households (interview with Dr Abba Kanno).

Through these and similar institutions, the Borana have managed their resources and coped through hard times of drought, epidemics and war. When conflicts do not occur during periods of resource scarcity such as drought, it is because clans and neighbouring ethnic groups draw on one another's resources and strengths to spread risk and redistribute assets. However, when conflicts break out between ethnic groups that have amicably shared resources, it is an indication that these institutions have broken down and that the influence of other, confounding factors is too great to be overcome by the customary institutions.

Policy environment

The policy environment is one significant factor that influences the internal dynamics and systems of pastoralist communities. The influence of policies can be studied at different levels. On one level, we see government policies that aim to encourage economic growth impinge upon pastoralist livelihoods.

In an effort to encourage private investment and entrepreneurship in line with international development policies, domestic development policies lease out crucial dry-season grazing areas to private companies and industries (Mariam 2009). In Ethiopia this is apparent in the Afar and Oromia Regions (interview with Daniel Temesgen, Pastoralist Ethiopia Forum).

In Borana Zone, thousands of hectares of pasture land are given to private entrepreneurs, disturbing the seasonal migration of pastoralists and reducing available pasture land (interview with Boku Tache Dida; Jarso 2005). These entrepreneurs are attracted by the lucrative national and international business of the meat and cattle markets.

On another level, domestic political processes have resulted in boundary disputes and violent conflicts over the years. In Ethiopia, the politics of ethnic federalism has sparked conflicts among different ethnic groups (Dida 2008; Hagmann and Mulugeta 2008). In Northern Kenya, the competition among political elites from pastoral communities to increase their political influence and expand their political constituencies has resulted in similar outcomes, albeit at a smaller scale (CEWARN 2005). These two aspects of the policy environment will be discussed in the following sections.

The influence of markets

The demand for meat is increasing nationally, regionally and globally. See Figs. 7 and 8. The increase in demand for meat and live animals adds to the importance of livestock in the national strategies of developing countries. This is especially true in the countries of the Horn, where the arid and semi-arid regions and their pastoralists contribute 20–30 percent of GDP (Mkutu 2001).

In Ethiopia, the livestock sector contributes about 30–35 percent of agricultural GDP and 12–16 percent of the national GDP (Desta 2006), while the export of livestock and livestock products holds second place (next to coffee) in spite of the fact that

the livestock export sector is not organised and there is no one central marketing body that links local markets to the outside world (Government of Ethiopia n.d.). Individual exporters play an important role in organising the purchase of livestock independently and make use of holding grounds before they send their products for export (interview with Assefa Amaledegn at the Ethiopian Ministry of Agriculture).

There are disadvantages that accrue to pastoralists as a result of the disorganised nature of the market. Pastoralists will not receive a fair price when they sell their cattle to traders who pass the cattle on to fattening centres in preparation for export (interview with Ishetu Ketema). In addition, the gaps in the administration of the meat and cattle market give certain pioneer traders an opportunity to gain an unfair advantage and power in the market. The imbalance in power between traders and pastoralists has resulted in the loss of crucial grazing and ritual land to traders (Mariam 2009; interviews with Boku Tache Dida and Melicha Sora).

There is an undeniable need among pastoralists for functioning cattle markets where pastoralists can also benefit from the increasing prices of meat and cattle (see Figs. 7 and 8). Markets become especially crucial when droughts strike and there is a need to destock before livestock become too weak and lose their value (interview with Dr Getachew Gebru). However, the manner in which markets come into existence and develop can disturb the local context and does more harm than good.

The current state of the market for meat and cattle in Ethiopia has attracted private ranchers to Oromia Region. Commercial ranches such as the Dambala Wachu Ranch (12,000 ha), Sarite Ranch (17,000 ha), Walensu Ranch (25,000 ha), Dida Liban Ranch (4,000 ha), Dida Tuyura Ranch (more than 4,000 ha), Agirte Ranch (about 800 ha) and the proposed Melbana Group Ranch, which covers 56 km² of rangeland, are testimony to this reality (Jarso 2005). Traders who lease pasture land target international markets: mainly Saudi Arabia, the United Arab Emirates, the Republic of Yemen and Egypt (Government of Ethiopia n.d.).

The downside of this development for pastoralists is the loss of their communal grazing land and the threat that this poses to their customary institutions, whose basic premise is the communal ownership of land (Dida 2008).

Although the government promises to respect the rights of pastoralists not to be displaced from their land, it also reserves the right to lease out what it considers 'waste-land' to private investors. Since the power to classify land lies with the government, pastoralists have ended up losing land to private investors (Mariam 2009).

Figure 7 Price of meat per kg (in ETB)

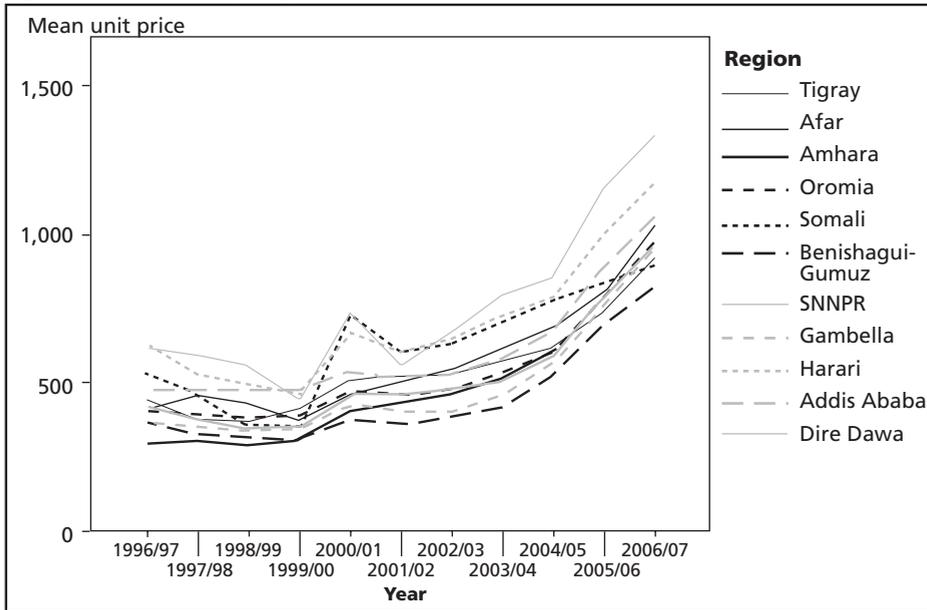
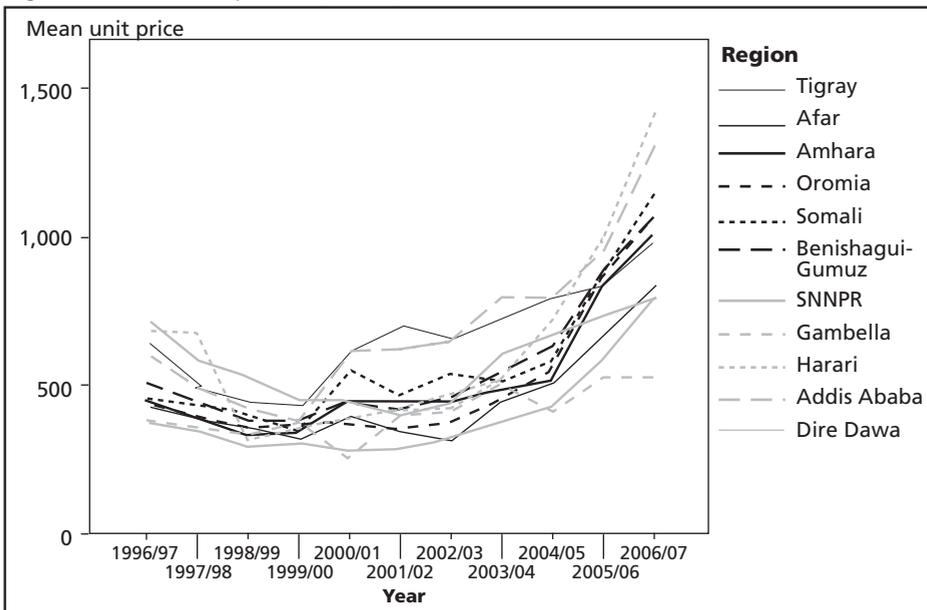


Figure 8 Price of bulls (per head, in ETB)



The irony becomes all the more poignant when new and powerful agro-industries that have connections in the political system get access to large tracts of pastoralist land for the production and export of livestock products for external markets at the expense of local communities whose coping mechanism is being continuously eroded. The case of the land acquisition by Elfora Agro-Industries in Oromia Region is a good example. Elfora is the largest livestock company in Ethiopia⁸. It was established in 1997 through the acquisition of eight livestock enterprises from the Federal Government of Ethiopia (Elfora Agro-Industries n.d).

When the Socialist regime fell in 1991, the country embarked on a more market-oriented development path. The Ethiopian privatisation agency was established in 1994 with the sole purpose of privatising previously public enterprises (Ethio Market 2009). The Ethiopian Livestock Marketing Enterprise (ELME) was one such public enterprise, occupying large tracts of land for the purposes of livestock production and export. In 1998, ELME and all the property it owned, including the state-owned ranches in Dida Liban (4,000 ha) and Surupa (4,000 ha) were sold to Elfora Agro-Industries (Dida 2008). This was carried out regardless of the letter of petition submitted by the elders of the *madda* of Dubluq (see Appendix III with regard to the spatial organisation of the Borana and what a *madda* is), referring to government land policies that should have protected them (against evictions and displacements) and their customary rights to the land (Dida 2008). Consequently, the pastoralists of the area lost access to their dry-season grazing land. Elfora Agro-Industries now supply livestock products to the largest hotels, enterprises and the military among others domestically, and to the Gulf States (Elfora Agro-Industries n.d).

Some pastoralists in Borana seem to be taking up this private mode of livestock production and seizing previously communal land by forming ranching cooperatives to capitalise on the business of meat and cattle trading⁹. The idea of pastoralist cooperatives comes from the Socialist Derg regime. In its time, pastoralists were organised in cooperatives that mainly provided services and consumer goods to pastoralists. These cooperatives were not organised around key natural resources.

Upon the fall of the Derg, the fate of these cooperatives was undecided. One such cooperative is found in Dire. After the fall of the Derg, this cooperative took over the ranch that used to be run by the Derg's Southern Rangelands Development Unit (SORDU): a World Bank-funded project established under the Derg regime, with the purpose of introducing modern range management practices and encouraging the export of livestock and livestock products from pastoralist areas. Its cattle-fattening

⁸'Elfora' comes from two Borena Oromo words: *ela* (or *ella*) and *fora*. *Ela* (or *ella*) means 'permanent water point', and *fora* means 'rainy-season grazing land' (Elfora Agro-Industries n.d).

⁹I thank Dr Boku Tache Dida for suggesting this line of analysis.

and exporting department had two main customers. Domestically, the project provided meat for military consumption. Internationally, the Gulf Region was the most important customer. When the regime changed, the project ran out of money and was placed under the Oromia Agriculture Office. Because of the lack of knowledge and financial resources to manage it, several options were considered. The first option was to return the land to the pastoralists, the second option was to hand the land over to cooperatives that had been set up by the previous government, and the third option was to rent the land out to traders from the city. Well-off pastoralists with connections to urban political elites organised themselves into a pasture-based cooperative and put up a strong front to prevent the land from being handed over to traders from the city. Finally, 10,000 ha of land were sold to the pastoralist cooperative for ETB 15,000 (interview with Dr Boku Tache Dida).

In this cooperative, access to grazing land is open only to members and ‘outsiders’ who pay fees. These ‘outsiders’ are traders, who want to rent grazing land as holding ground, and neighbouring pastoralists. Pastoralists who try to herd cattle in these lands without paying fees are fined. These developments show that the private property regime is infiltrating the Borana custom of communal property management among the pastoralists themselves (interview with Dr Boku Tache Dida).

The combined effect of the encroachment upon communal land by private ranchers and pastoralist cooperatives is to disrupt the livelihoods of pastoralists who depend on extensive land use systems (Dida 2008). Migration patterns that have followed dry and wet seasons will be disrupted and the size of available pasture land and water for the pastoralist community will be reduced. These factors in combination will pave the way for border encroachments upon neighbouring communities and intensified competition for resources, which will increase the risk of conflict.

Domestic government policy

Although pastoralist livelihood systems do not concur with sedentary and centralised political systems, they have always found themselves at the mercy of them. Pastoralists, in accordance with this reality, have experienced political systems that range from those that completely disregard them to those that infiltrate their society at different administrative levels. Unfortunately, the pastoralist lifestyle cannot remain immune from the varying degree of interest on the part of centralised political systems. Each political regime influences the way pastoralists relate to their resource base and one another.

In Ethiopia, government policies have historically disregarded the communal land tenure traditions that characterise pastoral production (Abdulahi 2007 in Hagmann

and Mulugeta 2008). Government interventions have implemented development projects that promote limited mobility of livestock, sedentarisation and mixed agro-pastoral production instead of transhumant, migratory pastoralist lifestyles (Hagmann and Mulugeta 2008: 24).

Under the imperial regime (before 1974), all land that was not permanently settled or cultivated was considered state-owned land, legally dispossessing pastoralists of their land. In the 1960s and 1970s, development projects started to appear in pastoral areas. Some of these initiatives were in the form of veterinary services, water development stock routes, the excavation of ponds and shallow wells, the drilling of boreholes, the building of cisterns and marketing facilities (Mesfin 2000 in Hagmann and Mulugeta 2008). Almost every project was designed to promote sedentary lifestyles. The multiplication of water points initiated by these development projects weakened customary institutions of water and grazing management and triggered rangeland degradation (Helland 2000 in Hagmann and Mulugeta 2008).

In the constitution, the current government of the EPRDF recognises the right of pastoralists to grazing land as well as their right not to be displaced from their land (interview with Tesfaleassie Mezgebe). However, no regional or federal law has so far been promulgated to enforce this constitutional principle (FDRE 2002.6 quoted in Hagmann and Mulugeta 2008).

Although the EPRDF and the Derg regime, in practice, share similar land tenure policies, inter-ethnic tensions reached unprecedented levels after the EPRDF's ascent to power in 1991 (interview with Borbor Bule). The political factor that escalated inter-ethnic conflict was the politics of ethnic federalism. In an effort to recognise the equal standing of all nations and nationalities with regard to 'the right to self-determination', it has fuelled the race to control key resources. The very concept of according a specific geographically defined area of land to a certain ethnic group clearly shows a lack of understanding of the pastoral lifestyle, which depends on reciprocal grazing rights (Dida 2008). Although land is still government owned, such delineation of land among ethnic groups is construed by pastoralists as an exclusionary right to the relevant pieces of land and all their resources. Consequently, since 1991, conflicts over resources have been intertwined with a quest for territorial control for political purposes (Hagmann and Mulugeta 2008).

The politics of ethnic federalism led to intense conflicts, because border communities have fluid identities and cannot be placed in one region or another without disgruntlement on the part of one ethnic group or another. For example, the Gedeo are a group of people who have roots in both the Guji Oromo and the Sidama. Both the Oromo and Sidama (in the Southern Nations and Nationalities and Peoples' Region – the SNNPR) wanted Gedeo land to be placed in their respective regions. When the Gedeo joined the SNNPR in 1994, conflicts erupted in the area, which claimed the lives of many people (interview with Al'Amin Shegto).

A similar incident occurred in the case of the Gerri. The Gerri speak both the Boran dialect of the Oromo language and Somali and used to be a part of the Gadaa customary institution of the Borana (interview with Dr Gemechu Megersa). They used to access Borana grazing land and wells through their client relations with the Borana clan of Karayuu (Oba 1996 in Dida 2008). However, the Gerri also have a long-standing rivalry with the Borana over the area lying on the border of the Oromo and Somali regions. This rivalry dates back to the nineteenth century (Dida 2008). When the Derg regime fell, the Borana and Gerri formed a temporary alliance under a political party, the Oromo Abo Liberation Front (OALF). However, this alliance was short-lived and the Somali Abo Liberation Front (SALF) split from the OALF (Schlee 1994 in Dida 2008). The Gerri joined the SALF. With this split, contested grazing areas in the Liban and Arero Zones and the associated deep wells of Goff and Lae were assigned to the Somali region (Dida 2008). This split and resource loss led to conflicts and internal displacement of the Borana from the area. There are other examples of violent conflict that broke out in the early 1990s because of border disagreements, between the Borana and Marrehan, Borana and Degodia, Arsi and Gurra, Arsi and Degodia, Guji and Marrehan and the Guji and Degodia (Belete 1999 and Fekadu 2004 in Dida 2008).

The role political elites play in exacerbating conflicts should also be mentioned. Elites from pastoralist communities identify political office and employment as an opportunity to gain political influence and access state resources. In an area of limited financial resources, political office is a source of stable income for the individuals and provides a crucial opportunity for them to access or solidify political influence for their ethnic groups. Community leaders/elders who have been drawn in by such opportunities trigger suspicion among their own people and contribute to eroding the customary institutions these leaders/elders represent (Hagmann and Mulugeta 2008). In Ethiopia, the possibility of gaining recognition from the government through the establishment of district offices has intensified the race to define one's identity and magnify one's difference from other ethnic groups to gain access to these resources. In this race, individuals and groups come up with new schemes to claim political office, such as giving new names to already existing areas and requesting political representation (interview with Huka Garse). Such moves offend neighbouring groups and increase tension between them.

In Northern Kenya, the competition among political elites from pastoralist communities to consolidate political power has led to border disputes in which they have aimed to increase their constituencies (interviews with Tune Ali, Nuria Gollo and Chief Abudo Godana). There are also claims that Members of Parliament from Marsabit and Moyale Districts have been inciting their constituents (CEWARN 2005). They are accused of arming their own people and inciting conflict between the different groups; at times these MPs are referred to locally as 'warlords' (interviews with Abudo Guyo,

Rael Getachew and Tune Ali). This is identified as one factor contributing to rising tensions and at times clashes between the Borana and Gabbra in Northern Kenya. Although the political contexts in Southern Ethiopia and Northern Kenya are entirely different, the competition for political representation among elites from pastoralist communities produces similar results: heightened tensions between groups and at times (particularly in Ethiopia) violent conflict.

Contextual environment

The political environment and worsening climate discussed in the previous sections exert their influence in a contextual environment that either hinders or exacerbates the occurrence of conflict. Although there are a wide range of elements that constitute the context pastoralists live in, three aspects are chosen for discussion here: environmental degradation, cattle rustling as a cultural phenomenon and the activities of rebel groups in the study area.

Environmental degradation

Although well suited for pastoralist livelihoods, the Borana grasslands are on the decline (interviews at the Agricultural Research Institute in Yabello). By 2003 the grasslands decreased to a seventh of the size they were in 1973 (Mesele and Coppock 2006). Factors that contribute to the reduction of grassland are land degradation, bush encroachment, termite invasion and change of land use. The Oromia Agricultural Research Institute classifies the types of land use common in the area into grassland, bushed grassland, bushland and cropland (Mesele and Coppock 2006). Grasslands have the highest level of organic matter and, therefore, the highest soil productivity. Bushlands have a prevalence of woody species and the most degraded soils. They are exposed to soil erosion and therefore lose crucial top soil that contains organic matter (Mesele and Coppock 2006).

Bushlands have not been controlled since 1970s and have increased over the past decades. Traditionally, pastoralists used to limit the spread of bushlands through the use of controlled fire over rangeland. However, this practice was banned by the government in the 1970s and bushlands have been spreading ever since (interviews with Dr Getachew Gebru, Dr Abba Kanno and Sintayehu Mesele).

Croplands have increased owing to the spread of farming activities among pastoralists themselves. As pastoralists cannot fully rely on their livestock any more and need to compensate for the calorie loss when milk consumption falls, they have gradually adopted agro-pastoral lifestyles. Growing crops also means that pastoralists can supplement their food needs themselves and need not sell their livestock to buy food (By

2003 the grasslands decreased to a seventh of the size they were in 1973 (Mesele and Coppock 2006).

The increase in population growth is another factor that leads to environmental degradation. The population of Borana, which was about 300,000 in the 1980s, was close to a million by 2007 (Central Statistical Agency of Ethiopia 2007). In the Borana context, more people mean more livestock. The increase in the numbers of people and livestock has done little to enhance the carrying capacity of the land. Instead, factors such as bush encroachment, termite expansion, privatisation of land in the hands of commercial owners and drought consistently work to reduce the productivity of the land¹⁰.

The culture of cattle rustling: the role of elders, women and youth in conflict

Conflict is part and parcel of pastoralist cultural heritage. Cattle raiding is seen as a heroic deed and is praised through songs and poems. Cattle raiding has been used as an important mechanism for restocking when pastoralist communities experience loss of cattle through droughts, epidemic and conflict (interviews with Rael Getacho from the Pastoralist Integrated Support Program, Tune Ali, Did Liben and Dr Abba Kanno). This is true among the Borana, Gabbra, Turkana, Rendille, Samburu and Dasanach among others (interview with Nuria Gollo).

Members of society play their respective roles in this cultural phenomenon. The elders (age set 49–56 and older) bless young warriors when they set out to raid cattle from other pastoralist groups they regard as enemies or non-allies. Spiritual leaders perform rituals that help them to decide when raids should be carried out and foretell whether such raids will be successful or not (interview with Jarso Nura Kadubata). For example, the *qallu* (spiritual leaders of the Borana) sacrifice a bull and ‘read’ its intestines to foretell whether a raid will be successful. If a raid is doomed to fail according to these ritual ceremonies, it will not be carried out (interviews with Jarso Nura Kadubata and Chief Abudo Godana). Elders and spiritual leaders have the final say in this matter.

¹⁰Droughts and the ban of burning rangeland have led to the expansion of termite numbers. The first termite mounds in the Borana land appeared in the 1960s. Although no accurate number is to be found, termite numbers are quickly increasing. The termites now encroach upon both dry-season and wet-season pastures and are ranked among the most important problems by pastoralists. Termites prefer long dry seasons accompanied by brief showers for their reproduction. Long showers wash roots and the feeding holes of termites, thereby destroying them. However, the frequent droughts have not challenged the termites’ existence. Termites are destructive, as they damage crops, trees, grasslands, fences, traditional houses and soils (Mesele and Awol 2008).

The same class of elders and spiritual leaders plays a crucial role in resolving conflicts, especially when conflicts arise within one clan or ethnic group, as they command great respect among their own ethnic groups. This influential position of resolving conflicts is diminished when conflicts occur between different ethnic groups. The elders of one ethnic group do not enjoy the same level of influence or authority in another ethnic group. As a result, it is when elders from different ethnic groups join forces that conflicts get resolved. A good example is the recent stability seen in the border area between Ethiopia and Kenya after a peace committee comprising elders from the Borana, Gabbra, Rendille, Turkana, Somali and other pastoral communities negotiated an agreement between the competing groups in 2009 (interviews with Ibrael Guyo, Chief Abudo Godana and Abudo Guyo). This does not, however, mean that all raids and attacks are condoned by elders. There are sporadic raids of livestock performed by the youth without the knowledge or blessing of elders.

Women are both agents and victims of pastoralist conflict. Raiding neighbouring tribes is culturally seen as a heroic deed. Men who raid neighbouring ethnic groups and bring home many heads of cattle are regarded as heroes and will be attractive to women eligible for marriage (interviews with Nuria Gollo, Rael Getacho and Orge Guyo). The raided cattle serve two purposes for a man. Firstly, they show his heroism and his courage. Secondly, they increase the wealth of the family and the clan. Cows in particular provide milk for the children of a married man. For a bachelor, cattle serve as bride wealth for the day he gets married.

Having a large herd is a source of prestige and security for the pastoralist household. A woman's social standing within the community rises when her husband extends his herd through raids. Consequently, there are cultural songs that goad men if they do not engage in raiding activities and there are songs that praise the brave man who provides for his family and is a source of pride to his clan (interview with Nuria Gollo). Otherwise, women do not have an active role in planning raids or consulting men with regard to the raids. Women are not considered equal partners in the matters of security of the society (interview with Nuria Gollo).

Raiding typically provokes retaliatory action from the raided community. Pride and keeping the good name of the clan and the family are matters of grave importance (interview with Nuria Gollo). As a result, raids and retaliatory raids, sometimes go on for years. Women, children and the elderly are traditionally spared in raids as they are considered defenceless and it is shameful to attack the defenceless. However, the current trend is to spare no one (interview with Rael Getacho). During the raid the Borana conducted against the Kenyan Gabbra in July 2005, 56 civilians were killed, of whom 22 were children, 24 were women and 11 were men. Pursuing the women, children and the elderly and carrying out cruel acts of mutilation have been used as ways of sending a message to the men of communities (interview with Nuria Gollo). As women are expected not to engage in fighting by their communities and their traditional gender

role predisposes them towards caring for the family rather than engaging in fighting, women and children are quite vulnerable when these raids occur.

Women used to be captured and taken along with children and cattle during raids (interview with Jarso Nura Kadubata). These women were expected to carry looted assets and to cook for the men on the journey to the villages of the raiders (interview with Nuria Gollo). Once there, they were expected to assimilate into the host communities by learning their languages and cultures and finding husbands. The process of assimilation is usually fraught with difficulties. As these newcomers are identified as 'the enemy' by the host community, they are taunted and harassed (interview with Nuria Gollo). Some manage to assimilate – since there is no hope of escape, given the long distances they cross in the harsh climate to get to their new places of residence. When they fail to assimilate, they go through enormous psychological stress. When assimilation becomes too difficult, these women are taken back to the border of the two communities and left there to find their own way back home (interview with Jarso Nura Kadubata). With the great distances involved and the harsh climate, the odds are stacked against these women. This practice of kidnapping women has waned in view of the deterioration in the relations between the different ethnic groups and the devastation the spread of modern weapons has brought.

Young men are at the forefront of pastoralist conflict. The age ranges of pastoralist youth responsible for the security matters of their communities are similar in many pastoralist communities. Among the Borana, young men in the 17–24 age range are expected to protect the cattle they herd. This will be their first experience of security problems. However, when they join the next age set (25–32), they become junior warriors and begin to take part in formal military campaigns following senior members of society who usually organise such campaigns (Taye 2002). In the 33–40 age set, they attain the rank of senior warriors and take the lead in military activities. As it is in this age set that men are allowed to marry, successful raids become important with a view to their finding a wife/wives (interview with Borbor Bule). The system just elaborated outlines the responsibilities of young men as stipulated by the customs of the Gadaa institution. However, in reality, the situation and the particular clan/community dictate to what extent these rules are observed. For example, in the Borana raid against Degodia in 1992, Jarso Nura Kadubata took part as a 16-year-old boy with his brother and his age group peers. He states that, in that raid, casualties were higher among the younger participants than the older experienced warriors.

Among the Rendille, when young men turn 18, they are circumcised and are expected to raid cattle as a rite of passage. The circumcision and the subsequent raids are rituals that show that the young men are no longer *ayud* 'youths' but have joined the class of *morán* 'warriors' (interview with Orge Guyo). Circumcision of this age set is carried out at the same time in all Rendille clans. Neighbouring ethnic groups know that this signifies an impending raid (interview with Nuria Gollo) and the level

of tension in neighbouring communities rises with people being extra vigilant against raids from the young Rendille (interview with Nuria Gollo).

More recently, poverty and unemployment are also pushing the youth into cattle thefts and highway banditry. In 2006, three high school boys from Borana were identified as bandits in Northern Kenya. One was captured alive and two were killed during an attempted highway robbery. When interviewed, the surviving member of the threesome stated that they were involved in highway banditry to pay school fees (interview with Nuria Gollo). Moreover, it is claimed that the Oromo Liberation Front (OLF), a rebel group that is outlawed in Ethiopia and is operating in secret in the border area between Ethiopia and Kenya, targets and finds ready recruits among Borana youth in Northern Kenya (interviews with Tune Ali, Nuria Gollo and Abudo Guyo).

Rebel groups in the study area

Rebel groups that are most prominent in the study area and contribute to its instability are the Ogaden National Liberation Front (ONLF), which is accused of arming Somali clans and at times mounts attacks on neighbouring Oromo clans (interview with Al'Amin Shegto), and the Oromo Liberation Front (OLF), which is said to recruit Borana youth for armed struggle (interviews with Chief Abudo Godana, Nuria Gollo and Tune Ali).

The case of OLF will be presented here as it is most active in the border area between Ethiopia and Kenya. The OLF was established in 1973 by Oromo nationalists to promote self-determination for the Oromo people and the establishment of the independent Democratic Republic of Oromia (Welch 1995). When the Derg regime fell in 1991, the OLF joined other guerrilla groups in forming the Transitional Government of Ethiopia. However, soon after, the OLF left the coalition, claiming that its members were being continuously harassed and intimidated in many parts of Oromia by the transitional government and its central actor, the Tigrean People's Liberation Front or TPLF (Welch 1995).

Members of the OLF fled south to the border area between Ethiopia and Kenya. Communities in Northern Kenya started to notice the appearance of the OLF in their midst in 1993 (interview with Chief Abudo Godana). When the OLF appeared among the Borana and Gabbra communities in Northern Kenya, its members depended on the local communities for their survival. These armed men are said to reside in the forests of Marsabit Mountain in Northern Kenya and depend on supplies such as food and other assistance from the local communities. The Borana communities accepted their kinsmen and provided assistance while the Gabbra held back (interviews with Ibrae Guyo and Chief Abudo Godana).

The OLF is alleged to support the Borana in their conflicts with neighbouring ethnic groups. For instance, the OLF is implicated in the Torbi massacre that took place in July 2005 (CEWARN 2005). In the tensions that led to the massacre, the Borana of Kenya and Ethiopia united to attack the Gabbra, and the Gabbra of Northern Kenya also united with their kin in Southern Ethiopia. In the period immediately following this incident, several revenge attacks by the Gabbra against the Borana took place. The day after the massacre, the Gabbra of Bubisa (south of Torbi) stopped a bus on a highway and executed nine Borana passengers (interviews with Rael Getacho and Tune Ali). Another revenge attack was launched the following day in Maikona, where a Gabbra community attacked ten houses belonging to the Borana who had fled the area (CEWARN 2005). Local residents claim that the presence of an armed guerrilla group in their area has rendered their everyday life more perilous¹¹.

Community leaders of the Gabbra in Northern Kenya claim that the presence of the OLF in their area has contributed to the deterioration of relations between the two communities (interviews with Chief Abudo Godana, Ibrae Guyo, Abudo Guyo and Katela Ukha). However, the influence of rebel movements in remote pastoral areas is under-researched and more empirical work is needed before a clear understanding can be acquired of the impact of guerrilla movements on local communities.

¹¹ The incidents discussed above and the claims about the activities of the OLF in Northern Kenya are highly contested by the OLF leadership.

Outcome: increased conflict and weakening of traditional institutions

Pastoralists in the study area face pressure from different quarters as elaborated through the framework of double exposures. On the one hand, owing to man-made and natural influences, the carrying capacity of their environment is decreasing. There is a clear decline of precipitation in the study area. Land degradation, bush encroachment and termite expansion reduce the productivity of the grassland. On the other hand, government policies that prioritise businesses and investment projects slice up the land and hand it to private entrepreneurs. The politics of ethnic federalism has introduced permanent and inflexible boundaries between different ethnic groups and has contributed to limiting the vast lands that pastoralists used to traverse searching for pasture and water.

One way to increase conflicts is to weaken traditional institutions. Traditional institutions form a very important social structure that defines most aspects of pastoralist life. The customary institutions of resource management, social protection and conflict resolution of the Borana are closely intertwined in the Gadaa system of rules and regulations.

As persistent droughts and environmental degradation have reduced the availability of viable pasture, tension arises during periods when resources are scarce. Traditionally, when there is not enough pasture, herders bring their cattle to areas where water and pasture are available and negotiate grazing rights. Decisions are made depending on the availability of forage and the number of cattle already using the areas. If the areas are being used to their capacity, the new herders are asked to find other grazing areas. However, with the deterioration of resources and large tracts of land being given to private ranchers and other ethnic groups, the options are severely limited. In such cases, herders who are prevented from accessing grazing areas by traditional institutions may petition the local government offices and return with formal permission to use the areas (Edossa et al. 2005). As a result, the central government's commitment to respect customary institutions is not followed up at the local level. Although this weakens customary institutions' authority over management of resources, these institutions of rangeland management do not have a solution to the diminishing supply of pasture land.

The consequence of such erosion of available resources and the weakening of customary institutions is the attempt by pastoralist groups to solidify ownership over pasture and water resources. Ethnic federalism provided an opportunity to do this. The competition among various ethnic groups for recognition from central government and access to resources has led to many violent conflicts and internal displacement of people.

Not all strategies lead to confrontation and violent conflicts. To compensate for the lack of mobility and the associated decline in milk production, pastoralists have adapted agro-pastoral lifestyles to supplement their demands for food. However, as the physical characteristics of the region do not guarantee good harvests, the level of food insecurity in the area is high.

Conclusion

The paper represents an attempt to understand the relationship between environmental/climatic factors and the conflict dynamics of the Horn of Africa. The double-exposures framework is used to structure the analysis, as it recognises the interplay of social, political and economic factors that influence outcomes. It recognises that factors from global climatic change to local political dynamics intensify the competition for scarce water and pasture, the degradation of natural resources and, in the worst cases, violent conflict.

Although local communities perceive a trend of deterioration in the climate (frequent and longer droughts, drying up of perennial lakes and the declining capacity of wells), historical accounts show that harsh climate is not a new phenomenon in the study area. Pastoralists have long developed customary institutions that help them pool resources across space and time in order to survive in their environment.

Outside influences, however, bring in new dynamics that these institutions were not designed to handle. The emergence and expansion of private ranches inhibit one crucial coping strategy of pastoralists: mobility. On the other hand, ethnic federalism is construed by local ethnic groups as an exclusionary right to land and water and disrupts another coping strategy: reciprocal grazing arrangements. Policy makers need to take into consideration the long-term consequences of political actions such as leasing land to investors and demarcating borders. New actors (in this case, private ranchers) wishing to utilise local resources should closely consider their impact on local dynamics and try to minimise the detrimental impact. Attempts should be made to share resources with local communities. Local communities should be involved in the initial stages of new developments in order to develop trust and mutual respect. The interaction between private ranchers and local communities is, however, little researched in the study area. In particular, further research on the impact that these new market agents have on the coping strategies of local communities is important for policy makers who want to achieve the twin objectives of promoting development and respecting the rights of indigenous populations.

Although ethnic federalism has the well-meaning objective of promoting the rights of different ethnic groups, how it is implemented and how it is perceived among the different groups in Southern Ethiopia has turned it into a thorny issue. It is clear that there is a need to raise awareness among pastoralists if the potential positive outcomes of ethnic federalism are to be realised. With increased awareness, the likelihood that

neighbouring groups will enter into conflict over administrative borders will be reduced.

Local communities expressed worries that administrative decisions from the capital and central authorities are imposed on them with little or no involvement from their side. This has contributed to the deterioration of the trust local communities have in central government bodies. To increase trust and reduce the likelihood of conflict between neighbouring groups, community leaders and elders should be consulted when new administrative borders and offices are set up. Time and energy spent in this regard save lives and avert conflict.

The contextual environment pastoralists live in is characterised by population growth, environmental degradation and cultural and political factors that pave the way for frequent outbreaks of conflict. The culture of cattle raiding involves different members of society and is part of the pastoral life-world. Although cattle raiding is a historical phenomenon, it has become more deadly owing to the proliferation of small arms in the region.

Community elders are important with regard to cultural practices such as cattle raiding. They either condone or condemn raids. They still enjoy considerable authority among their communities. Therefore, attempts to reduce this harmful activity need to start with the role of the elders. It is most efficient to work through them to reach other members of the community. This does not mean that other members play insignificant roles. Male and female members of society play their own respective roles and should also be engaged in such a process.

The role of rebel groups in escalating conflict between different community groups is little researched in general. The study indicates that the presence of the Oromo Liberation Front in Northern Kenya has contributed to the fragile nature of Borana-Gabbara relations. Such a dynamic could also be expected in other parts of the continent where rebel groups operate in the hinterlands. More research is clearly needed in this area.

The report has shown that deterioration in the climate and environment alone does not lead to conflict, as local populations have learned to adapt to their environments. It is when it is coupled with other social, political and economic factors that exacerbate scarcity that conflicts become more likely. Although this study focused on Southern Ethiopia and Northern Kenya as study sites, important lessons can be drawn for other parts of the continent with similar environments and modes of livelihood.

Appendix I: Policy recommendations

Climate change is said to lead to conflict, as available resources dwindle and the competition for resources increases. From this perspective, the report “*Climate to Conflict? Lessons from Southern Ethiopia and Northern Kenya*” attempts to explain the relationship between environmental/climatic factors and the conflict dynamics in the Horn of Africa. Through its analysis and conclusion, it has shown that deterioration in the climate and environment alone may not lead to conflict, as local populations have learned to adapt to their environments. It is when it becomes connected with other social, political and economic factors that exacerbate scarcity that conflicts become more likely.

The following are policy recommendations that come out of the study:

- Encourage attempts to preserve and/or regenerate the local environment

The role that diminishing resources play in influencing conflict dynamics cannot be underestimated. With deteriorating environmental capacity, factors such as population growth enhance competition for scarce resources and disturb any compromise that may have previously existed between different groups of people. As a result, policy initiatives that promote environmental preservation and regeneration in the study area are paramount. Some of these endeavours involve water-saving and storing initiatives, formal and customary protection of grazing lands, and rehabilitation of deep wells. Such endeavours reduce the pressure on the natural environment to support the population and various economic systems. Sustainable use of the environment is paramount to any political initiative to bring peace.

- Customary institutions and government offices should find ways of cooperating to manage local resources. Improve transparency in how decisions are made.

The study shows that the commitment of central government to respect customary institutions is not followed up at the local level. Formal government structures have undisputed power over natural resources although customary institutions have developed systems that help them manage and share resources. This overlapping of authority over

how resources are used locally has set customary institutions and local governmental offices on a collision course. In certain cases, local governmental offices have overruled decisions made by customary institutions. This undermines the authority of customary institutions and increases the tension between ethnic groups. Efforts should be made to minimise such contradictions. Educating government officials who take office in remote areas about customary institutions may increase the likelihood of cooperation between formal and customary governance systems.

- Involve local communities in decisions made in the name of development

When land that has belonged to indigenous populations is handed over to entrepreneurs for investment, this disrupts the coping strategies and livelihoods of people who have depended on it. In the case of Ethiopia, the government hands land it classifies as 'wasteland' over to investors. However, this land plays an important role in local peoples' lives and beliefs. The government should uphold its commitment to respect indigenous populations and their customary systems. In cases where investment is believed to better the position of local people and the economy, the local population should be involved in such decisions. In addition, the local population should be compensated for its estimated loss of income as a result of the new activity.

Investors who wish to acquire land could be required to map out the effects of their projects on the local communities and the areas of cooperation they have identified before they start them. In cases where their activities would disturb local livelihoods, they should bear the burden of accommodating the local population's needs. They should document that they have discussed any project with leaders of local communities and found a compromise. Such documentation could be reviewed by both the central government bodies and representatives of indigenous people.

- Restrict the proliferation of arms

The proliferation of arms in the study area has contributed to the increase in the damage caused by inter-ethnic conflicts. Local initiatives to curb the spread of arms should be supported. The Nairobi Declaration of 2000 and subsequent protocols represent a step in the right direction. However, setbacks and problems have been observed in these initial attempts. Local communities resist being disarmed, as they fear being left vulnerable while their neighbours still have arms. There are also instances where the arms acquired through these initiatives have ended up being resold and recirculated among the local populations. To succeed, all disarmament must be general, neutral and supervised by an impartial third-party body.

- Encourage local initiatives to promote peace

In the study area, the local population expressed trust in what are locally called ‘peace committees’. These are innovative initiatives started by NGOs working on the ground in collaboration with the local communities and have a good track record of success. The committees are composed of community elders from different ethnic groups. There are peace committees in both Southern Ethiopia and Northern Kenya. From time to time, they hold meetings across the border in each other’s countries. As the elders command great respect among their own communities, decisions made in these peace committees reach respective communities quickly. The calm achieved in Northern Kenya through these peace committees that have worked across ethnic groups and across the border is commendable.

- Employment opportunities for the youth

The youth take part in cattle raiding and sometimes are seen working independently to acquire access to financial resources. There are examples of youths involved in both highway robbery and cattle raiding to cover their basic needs. In addition, youths who have little opportunity to be engaged in income-generating productive activity can easily be recruited into rebel groups. It is therefore crucial that policies that create employment opportunities for the youth should be given priority. One mechanism is to link the pastoralist economy with the larger economy so that pastoralist products can be marketed to the general population. Currently, a combination of large and small traders is the link between the general population and pastoralists. Efforts should be made to expand this link and involve pastoralists in trading activities within the larger economy. Such schemes would give an incentive to the youth to find creative ways of providing their local products for the consumption of the general population.

- Raise awareness to reduce cattle raiding

Different members of pastoralist communities play their own respective roles in cattle raiding as elaborated in the report. This activity, however, causes retaliatory action from the communities that have been the victims of cattle raiding. In this process of attacks and reprisals the level of violence in the region escalates. There are NGOs currently working on the ground to raise awareness among pastoralist communities of the harmful effects of cattle raiding. Such efforts should be encouraged.

Appendix II: Borana Oromo social organisation

Stage	Designation	Age range	Remarks	Specific role in society
1	Dabballee	0–8	Child is born	None – immature, sons of Gadaa, only symbolic role as mediators between God and humans
2	Foollee (Gaammee xixiqoo)	9–16	Naming ceremony at home if ilmaan jaarsaa or at Nura Shrine in Liban if ilmaan kormaa	Some look after small stock around ollaas
3	Qondaala (Gaammee gurguddoo)	17–24	Intensification of Stage 2	Take livestock further away from ollaas and begin drawing water from ellaas. In this grade, the boys are initiated and elect their 6 leaders, known locally as hayyuu councillors. The hayyuu council is a crucial governing body and later becomes the Gadaa council.
4	Kuusaa	25–32	Acquires political importance	Luba elects its leader and is named after him. Nucleus of Gadaa leaders (adula councils) emerges.
5	Raaba doorii	33–40	This and the kuusaa grade constitute a period of preparation for the assumption of full authority	Important military wing within the Gadaa system. Conducts raids. Protects Borana territory and resources against enemies. Men are allowed to marry.
6	Gadaa (Luba)	41–8	Politically the most active	Leadership grade – the most important of all stages. Luba assumes power/office. Transition is marked by leadership ceremony. Visits all Borana regions, settles serious disputes and convenes assemblies.
7	Yubaa I	49–56	Retirement stage	Advisory role in the society. They receive a great deal of respect as wise, experienced authorities and repositories of law.
8	Yubaa II	57–64	Retirement stage	
9	Yubaa III	65–72	Retirement stage	
10	Gadaamojiii	73–80	Marked by rites at different sites	Senior advisors
11	Jaarsaa	Over 80	Old-age stage	At a stage to be cared for

Source: Edossa, D. C. et al. (2005) 'Indigenous Systems of Conflict Resolution in Oromia, Ethiopia', Natural Resources Institute [website], <<http://www.nri.org/projects/waterlaw/AWLworkshop/DESALEGN-CE.pdf>>, accessed 10 January 2009.

Appendix III: Borana territorial organisation

Local name of the territorial organisation	Components and remarks	Authoritative figure(s)	Responsibilities of the authority
Ibidda	Hearth	The owner of the hearth A hearth is associated with a wife	The maintenance of her milk cows, calves and young children and the overall care of her family, including her husband
Warra	A household Husband (head of household), wife/wives and children Wives are classified as senior wives (hangafa or niitii gamme) and other wives (all termed second wives or junior wives).	Abba warra (father of the homestead) Hadha warra (mother of the homestead)	To produce new members of the society and socialise them in such a way that they are integrated into the society
Shanacha/ Mogga	Inhabitants of adjacent communal kraals in a village	Abba shanacha	Managing the overall affairs of the unit, ensuring peace and security; allocating labour for different tasks; settling disputes; representing the interests of the unit
Olla	A village of at least 5 shanachas	Abba olla	Overseeing the social, economic and ritual activities of the olla and maintaining close links with other ollas in the area on the basis of custom and law; handling cases that are beyond the authority of the abba shanachas. Residents of an olla are expected to share resources and cooperate in the work of herding and watering livestock.
Ardaa	Adjacent villages The ardaa has its own ceremony – kormaa korbeessa ardaa – where ardaa members come together to celebrate and socialise.	Jaarsaa ardaa (council of elders) Hayyuu	Overseeing the management of communal pasture. Dividing the herds of the ardaa into dry stock and lactating stock; allocating the pasture around the main village as a reserve for the weaker stock, especially calves. The Gadaa councillor who resides in the ardaa represents the ardaa to the outside world.

Local name of the territorial organisation	Components and remarks	Authoritative figure(s)	Responsibilities of the authority
Reera	Adjacent ardaas Physical features such as hills or mountain valleys separate two reeras.	Abba reera	Inhabitants of the reera cooperate on mobilisation of labour for joint use of pasture and ponds, burial of the dead and other ceremonies.
Madda	Several reeras A madda is named after a permanent water point. The madda has its own ceremony – kormaa korbeessa madda – where madda members come together to celebrate and socialise. In the korma madda ceremony, water well-related affairs are discussed and decisions are made.		
Dheeda	Dheedas are subregions within the two broader regions of Liban and Dire. Liban has 2 dheedas and Dire has 5.	Abba dheeda	The council of the abba dheeda represents all the grazing territories of the Borana. The council is also responsible for maintaining law and order and promoting peace and harmony. Abba dheedas report to Gadaa officials.
Gadaa	All Borana	Abba Gadaa	The Gadaa is the most comprehensive level of social, political and economic organisation.

Source: Taye, G. (2002) 'Indigenous Survival Strategies in the Face of Famine: the Case of Borana Oromo, Southern Ethiopia', master's thesis (Addis Ababa University).

Appendix IV: Sub-state conflicts in the Horn of Africa

Actor 1	Actor 2	Year	Fatalities (best estimate)	Fatalities (low estimate)	Fatalities (high estimate)	Location
Afar	Kereyou	2002	29	29	29	Ethiopia
Anuak	Dinka	2002	35	33	100	Ethiopia
Dizi	Surma	2002	35	35	35	Ethiopia
Anuak	Nuer (Ethiopia)	2002	59	59	59	Ethiopia
Afar	Issa	2002	75	75	248	Ethiopia
Ogaden	Sheikhal	2002	435	435	435	Ethiopia
Anuak	Nuer (Ethiopia)	2003	30	14	100	Ethiopia
Oromo	Somali	2003	33	33	33	Ethiopia
Afar	Kereyou	2003	40	40	40	Ethiopia
Dawa	Gura	2003	55	55	55	Ethiopia
Bi'idyahan subclan of Majerteen clan (Darod)	Ismail subclan of Makahil clan (Dir)	2003	280	280	280	Ethiopia
Mejerti	Ogaden	2004	54	54	54	Ethiopia
Merille	Turkana	2005	31	31	31	Ethiopia
Gabbra	Guji	2005	43	43	43	Ethiopia
Oromo	Somali	2005	102	102	102	Ethiopia
Amaro	Guji	2006	30	30	30	Ethiopia
Burji	Guji	2006	37	37	37	Ethiopia
Nyangatom, Toposa	Turkana	2006	58	58	58	Ethiopia
Murle	Nuer (Ethiopia)	2006	59	59	59	Ethiopia
Borana	Guji	2006	100	100	150	Ethiopia
Marehan subclan of Sede clan (Darod)	Majerteen subclan (Darod)	2006	100	100	100	Ethiopia
Borana	Gabbra	2005	68	68	95	Kenya
Turkana	Pokot	2006	27	27	33	Kenya
Nyangatom	Turkana	2006	77	77	107	Kenya

Actor 1	Actor 2	Year	Fatalities (best estimate)	Fatalities (low estimate)	Fatalities (high estimate)	Location
Garre subclan of Digil clan (Digil-Mirifle)	Murule subclan of Gugundabe clan (Hawiye)	2005	63	60	105	Kenya, Somalia
Jareer subclan of Hawiye clan	Jiddo subclan of Digil clan (Digil-Mirifle)	2002	28	26	32	Somalia
Ali-Gaf subclan of Abgal clan (Hawiye)	Mahadade subclan of Abgal clan (Hawiye)	2002	33	32	35	Somalia
Forces of Abdullahi Yusuf	Forces of Jama Ali Jama	2002	52	50	148	Somalia
USC/SSA – F (United Somalia Congress/ Somali Salvation Alliance – Omar Mohamed Mohamud 'Finish' faction)	USC/SSA (United Somalia Congress/ Somali Salvation Alliance)	2002	62	62	77	Somalia
Dir clan	Sa'ad subclan of Habar Gidir clan (Hawiye)	2002	72	72	79	Somalia
Agon-Yar subclan of Abgal clan (Hawiye)	Warsangeli subclan of Abgal clan (Hawiye)	2002	87	87	101	Somalia
RRA (Rahanweyn Resistance Army)	RRA – MH (Rahanweyn Resistance Army – Madobe and Habsade faction)	2002	170	170	209	Somalia
JVA (Jubba Valley Alliance)	JVA faction (Jubba Valley Alliance faction)	2003	25	25	107	Somalia
SSNM (Southern Somalia National Movement)	USC/SNA (United Somali Congress/ Somalia National Alliance)	2003	28	25	40	Somalia
Dir clan	Sa'ad subclan of Habar Gidir clan (Hawiye)	2003	43	43	43	Somalia
Mohamed Muse subclan of Abgal clan (Hawiye)	Warsangeli subclan of Abgal clan (Hawiye)	2003	58	58	70	Somalia
USC/SSA – F (United Somalia Congress/ Somali Salvation Alliance – Omar Mohamed Mohamud 'Finish' faction)	USC/SSA (United Somalia Congress/ Somali Salvation Alliance)	2003	72	72	89	Somalia
Marehan subclan of Sede clan (Darod)	Fiqi Muhumud subclan (Dir)	2003	104	102	125	Somalia
RRA (Rahanweyn Resistance Army)	RRA – MH (Rahanweyn Resistance Army – Madobe and Habsade faction)	2003	106	106	131	Somalia

Actor 1	Actor 2	Year	Fatalities (best estimate)	Fatalities (low estimate)	Fatalities (high estimate)	Location
Afi subclan of Galje'el clan (Hawiye)	Abtisame subclan of Galje'el clan (Hawiye)	2004	26	26	30	Somalia
Puntland state of Somalia	Republic of Somaliland	2004	34	34	125	Somalia
JVA (Jubba Valley Alliance)	SSDF (Somali Salvation Democratic Front)	2004	37	37	112	Somalia
Dabare subclan of Digil clan (Digil-Mirifle)	Luway subclan of Mirifle clan (Digil-Mirifle)	2004	47	40	87	Somalia
Duduble subclan of Gorgorte clan (Hawiye)	Suleiman subclan of Habar Gidir clan (Hawiye)	2004	47	47	47	Somalia
SNF – ADRA (Somali National Front – Ali Dheere and Rer Ahmad subclans)	SNF – HRHHY (Somali National Front – Hawar-same Rer Hasan and Habar Ya'qub subclans)	2004	69	69	90	Somalia
Dir clan	Marehan subclan of Sede clan (Darod)	2004	121	121	132	Somalia
Da'ud subclan of Abgal clan (Hawiye)	Warsangeli subclan of Abgal clan (Hawiye)	2004	132	128	143	Somalia
Sa'ad subclan of Habar Gidir clan (Hawiye)	Suleiman subclan of Habar Gidir clan (Hawiye)	2004	156	156	174	Somalia
RRA (Rahanweyn Resistance Army)	RRA – MH (Rahanweyn Resistance Army – Madobe and Habsade faction)	2005	34	34	34	Somalia
Huber subclan of Mirifle clan (Digil-Mirifle)	Yantar subclan of Mirifle clan (Digil-Mirifle)	2005	35	35	38	Somalia
Galje'el clan (Hawiye)	Jejele subclan of Jibedi clan (Hawiye)	2005	36	36	36	Somalia
Garre subclan of Digil clan (Digil-Mirifle)	Marehan subclan of Sede clan (Darod)	2005	99	89	139	Somalia
Sa'ad subclan of Habar Gidir clan (Hawiye)	Suleiman subclan of Habar Gidir clan (Hawiye)	2005	103	92	130	Somalia
Sa'ad subclan of Habar Gidir clan (Hawiye)	Suleiman subclan of Habar Gidir clan (Hawiye)	2006	48	36	72	Somalia
ARPCT (Isbaheysiga Ladagaalanka Argagaxi-sadda – Alliance for the Restoration of Peace and Counter-Terrorism)	ARS/UIC	2006	562	453	636	Somalia

Actor 1	Actor 2	Year	Fatalities (best estimate)	Fatalities (low estimate)	Fatalities (high estimate)	Location
PDF (Difaa al-Sha'abi: Popular Defence Force)	SSDF (Southern Sudan Defence Force)	2002	38	38	38	Sudan
Ma'aliyah	Rizeigat Baggara	2002	53	27	53	Sudan
SPLM/A (Sudanese People's Liberation Movement/Army)	SSDF (Southern Sudan Defence Force)	2002	82	82	82	Sudan
Janjaweed	JEM (Justice and Equality Movement)	2003	186	186	186	Sudan
Ma'aliyah	Rizeigat Baggara	2004	70	70	70	Sudan
LRA (Lord's Resistance Army)	SPLM/A (Sudanese People's Liberation Movement/Army)	2004	142	142	142	Sudan
Janjaweed	SLM/A (Sudan Liberation Movement/Army)	2005	30	30	30	Sudan
Janjaweed – Bin Kulaib faction	Janjaweed – Moro faction	2005	44	44	44	Sudan
SLM/A (Sudan Liberation Movement/Army)	SLM/A – MM (Sudan Liberation Movement/Army – Minni Minawi faction)	2005	45	45	45	Sudan
Hotiya Baggara	Newiba, Mahariba and Mahamid	2005	251	251	251	Sudan
SLM/A (Sudan Liberation Movement/Army)	SLM/A – MM (Sudan Liberation Movement/Army – Minni Minawi faction)	2006	57	57	117	Sudan
Aqar	Aqok	2006	60	60	60	Sudan
Habaniya	Rizeigat Baggara	2006	150	150	150	Sudan
Nuer Lou	Murle	2006	150	150	150	Sudan
Didinga	Toposa	2007	54	54	54	Sudan
Bor Dinka	Murle	2007	106	106	106	Sudan
Habaniya	Falata	2007	125	125	200	Sudan
Rizeigat Abbala	Terjam	2007	382	382	382	Sudan

Source: Uppsala Conflict Data Program (2003) UCDP Non-State Conflict Dataset v.2 2002–2006 [computer file], UCDP Database, <http://www.pcr.uu.se/research/UCDP/ucdp_projects/database_project.htm>, accessed 21 August 2009.

Bibliography

- Abbink, J. (1998) 'Ritual and Political Forms of Violent Practice Among the Suri of Southern Ethiopia', *Cahiers d'études africaines*, 38/2–4: 271–95.
- Almagor, U. (1979) 'Raiders and Elders: a Confrontation of Generations Among the Dessanetch', in K. Gukui and D. Turton (eds.), *Warfare Among East African Herders* (Osaka: National Museum of Ethnology).
- Baechler, G. (1994) *Desertification and Conflict: the Marginalization of Poverty and of Environmental Conflicts*, ENCOP Occasional Paper No. 10 (Bern: Swiss Peace Foundation).
- Spillmann, K. and Suliman, M. (2002) *Transformation of Resource Conflicts: Approach and Instruments* (Bern: Peter Lang).
- Bhagwati, J. (2004) *In Defense of Globalization* (Oxford: Oxford University Press).
- Bolig, M. (1990) 'Ethnic Conflicts in North-West Kenya: Pokot-Turkana Raiding 1969–1984', *Zeitschrift für Ethnologie*, 115: 73–90.
- Brooks, N., Adger, W. N. and Kelly, P. M. (2005) 'The Determinants of Vulnerability and Adaptive Capacity at the National Level and the Implications for Adaptation', *Global Environmental Change*, 17/2: 151–63.
- CARE Ethiopia (2008) *Conflict Mapping, Analysis and Peace Building in Borana Zone, Oromia Region* (Addis Ababa).
- Central Statistical Agency of Ethiopia (2005) *CSA National Statistics* (Addis Ababa).
- (2007) *The 2007 Population and Housing Census* (Addis Ababa).
- CEWARN (2005) 'CEWARN Alert: Rising Tension and Series of Violent Incidents Subsequent to Marsabit Massacre of July 12th 2005', *CEWARN* [website], <<http://cewarn.org/reports/Alerts/rising%20tension%20in%20Marsabit.pdf>>, accessed September 2009.
- Desta, S. (2006) 'Pastoralism and Development in Ethiopia', *Economic Focus*, 9/3 (Addis Ababa: Ethiopian Economic Association).

- Dida, B. T. (2008) 'Pastoralism Under Stress: Resources, Institutions and Poverty Among the Borana Oromo in Southern Ethiopia', Ph.D. thesis (Norwegian University of Life Sciences, Ås).
- Edgerton, R. B. (1972) 'Violence in East African Tribal Societies', in J. F. Short and M. E. Wolfgang (eds.), *Collective Violence* (Philadelphia: American Academy of Political and Social Science).
- Edossa, D. C. et al. (2005) 'Indigenous Systems of Conflict Resolution in Oromia, Ethiopia', *Natural Resources Institute* [website], <<http://www.nri.org/projects/waterlaw/AWLworkshop/DESALEGN-CE.pdf>>, accessed 10 January 2009.
- Ethio Market (2009) 'About EPA', *Ethio Market* [website], <<http://www.ethiomarket.com/epa/>>, accessed 2 September 2009.
- Gleditsch, N. P. (1998) 'Armed Conflict and the Environment: a Critique of the Literature', *Journal of Peace Research*, 35/3: 381–400.
- (2007) 'Environmental Change, Security, and Conflict' in C. Crocker, F. O. Hampson and P. Aall (eds.), *Leashing the Dogs of War: Conflict Management in a Divided World* (Washington, DC: United States Institute of Peace Press).
- Nordås, R. and Salehyan, I. (2007) 'Climate Change and Conflict: the Migration Link', *Coping With Crisis* Working Paper Series, International Peace Academy.
- and Sverdrup, B. O. (2002) 'Democracy and the Environment' in E. A. Page and M. Redclift (eds.), *Human Security and the Environment: International Comparisons* (Cheltenham, UK: Edward Elgar).
- Goode, J. and Maskovsky, J. (2001) *The New Poverty Studies: the Ethnography of Power, Politics and Impoverished People in the United States* (New York: New York University Press).
- Government of Ethiopia (n.d.) *Development Plan for Livestock and Livestock Products of Ethiopia* (Addis Ababa).
- Hagmann, T. (2005) 'Confronting the Concept of Environmentally Induced Conflict', *Peace, Conflict and Development*, 6.
- and Mulugeta, A. (2008) 'Pastoral Conflicts and State-Building in the Ethiopian Lowlands', *Afrika Spectrum*, 43/1: 19–37.
- Harvey, D. (2003) *The New Imperialism* (Oxford: Oxford University Press).
- Hendrickson, D., Mears, R. and Armon, J. (1996) 'Livestock Raiding Among the Pastoral Turkana of Kenya: Redistribution, Predation and the Links to Famine', *IDS Bulletin*, 27/3: 17–30.

- Hesse, C. and Cotula, L. (2006) 'Climate Change and Pastoralists: Investing in People to Respond to Adversity', *International Institute for Environment and Development* [website], <<http://www.iied.org/pubs/pdfs/11059IIED.pdf>>, accessed 20 July 2009.
- Hodgson, D. L. (1999) 'Images and Interventions: the Problems of Pastoralist Development', in D. M. Anderson and V. Broch-Due (eds.), *The Poor Are Not Us* (Oxford: Fountain Publishers).
- Homer-Dixon, T. (1999) *Environment, Scarcity, and Violence* (Princeton: Princeton University Press).
- IPCC (2007a) 'Climate Change 2007: Impacts, Adaptation and Vulnerability', IPCC Fourth Assessment Report (AR4), *IPCC* [website], <http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg2_report_impacts_adaptation_and_vulnerability.htm>, accessed 10 August 2009.
- (2007b) *Climate Change 2007: Synthesis Report – Summary for Policymakers* (Valencia).
- Jarso, G. (2005) 'Problems of Pastoral Communities at Southern Ethiopia', paper presented to the eleventh session of the Working Group on Minorities of the Office of the United Nations High Commissioner for Human Rights, 29 May–3 June 2005, *OHCHR* [website], <<http://www2.ohchr.org/english/issues/minorities/documents.htm>>, accessed 10 June 2009.
- Leichenko, R. M. and O'Brien, K. L. (2008) *Environmental Change and Globalization: Double Exposures* (Oxford: Oxford University Press).
- Mariam, A. G. (2009) 'Inside the Barley Republic', *Food Crisis and the Global Land Grab* [website], published 8 June 2009, <<http://farmlandgrab.org/4971>>, accessed 6 November 2009.
- Matthew, R. A. (1997) 'Rethinking Environmental Security', in N. P. Gleditsch (ed.), *Conflict and the Environment*, NATO ASI Series 2: Environment, Vol. 33 (Dordrecht, Netherlands: Kluwer Academic Publishers).
- Mesele, S. and Awol, M. (2008) *Study on Termite Expansion, Control and Community Perception in the Borana Plateau: Case Study of Southern Ethiopia* (Yabello, Ethiopia: Yabello Pastoral and Dryland Agriculture Research Centre).
- and Coppock, D. L. (2006) 'Changes in Land Cover and Soil Conditions for the Yabelo District of Borana Plateau, 1973–2003', Research Brief 06-06-PARIMA (California: University of California-Davis).

- Milmo, Cahal (2006) 'Drought in Africa: Ethiopia's Bitter Harvest'. *The Independent*, published 24 October 2006, <<http://65.181.175.195/component/content/article/217/46239.html>>, accessed 10 June 2009.
- Ministry of Planning and National Development of Kenya (1996) *Marsabit District Development Plan 1994–1996* (Marsabit, Kenya).
- (2009) *Marsabit District Development Plan 2002–2008* (Marsabit, Kenya).
- Mkutu, K. A. (2001) *Pastoralism and Conflict in the Horn of Africa* (Africa Peace Forum/Saferworld/University of Bradford).
- (2008) *Guns and Governance in The Rift Valley: Pastoralist Conflict and Small Arms* (Oxford: Indiana University Press).
- National Oceanic and Atmospheric Administration (1998) 'El Niño and Climate Change: Record Temperature and Precipitation', *National Oceanic and Atmospheric Administration* [website], <<http://www.publicaffairs.noaa.gov/stories/sir3.html>>, accessed 7 December 2009.
- Office of the Prime Minister of Kenya (2009) *Drought Monthly Bulletin*, published October 2009, <[http://www.reliefweb.int/rw/fullMaps_Af.nsf/luFullMap/3EDF05B8E0A14747C1257677004F93C7/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullMaps_Af.nsf/luFullMap/3EDF05B8E0A14747C1257677004F93C7/$File/map.pdf?OpenElement)>, viewed 10 November 2009.
- Oxfam (2005) 'Climate Change Impacts on Development: a Note of Oxfam's Experiences for the Stern Review', *Oxfam* [website], <http://www.oxfam.org.uk/resources/policy/climate_change/downloads/climatechange_oxfam_stern.pdf>, accessed 20 December 2008.
- Rankin, K. N. (2001) 'Governing Development: Neoliberalism, Microcredit, and Rational Economic Woman', *Economy and Society*, 30/1.
- Suliman, M. (1999) *Ecology, Politics and Violent Conflicts* (London: Zed Books).
- Sutter, P. (1995) *CARE Borena Rangelands Development Project: Socio-Economic Baseline Study* (Addis Ababa).
- Tadesse, M. (2002) 'Traditional Mechanisms of Conflict Resolution Versus State Intervention', in G. Baechler, K. R. Spillmann and M. Suliman (eds.) *Transformation of Resource Conflicts: Approach and Instruments* (Bern: Peter Lang).
- Taye, G. (2002) 'Indigenous Survival Strategies in the Face of Famine: the Case of Boorana Oromo, Southern Ethiopia', master's thesis (Addis Ababa University).

- Umar, A. N. (1997) *Resource Utilisation, Conflict and Insecurity in Pastoral Areas of Kenya* (Nairobi: Kenya Pastoral Forum).
- Uppsala Conflict Data Program (2003) *UCDP Non-State Conflict Dataset v.2 2002–2006* [computer file], UCDP Database, <http://www.pcr.uu.se/research/UCDP/ucdp_projects/database_project.htm>, accessed 21 August 2009.
- USAID Ethiopia (2009) 'USAID Humanitarian Assistance in Review, 1991 – Present', *USAID* [website] <http://www.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/countries/ethiopia/template/files/humanitarian_assistance_review.pdf>, accessed 20 August 2009.
- Wachira, M. (2009) 'Neither Ethiopian Nor Kenyan, Just Gabra, Garre or Borana', *The East African* [website], published 31 August 2009, <<http://www.theeastafrican.co.ke/magazine/-/434746/647554/-/15166hcz/-/index.html>>, accessed 30 September 2009.
- Wario, H. T. (2006) 'Historical and Current Perspectives on Inter-Ethnic Conflicts in Northern Kenya', master's thesis (Norwegian University of Life Sciences, Ås).
- Watson, E. (2001) *Inter-Institutional Alliances and Conflicts in Natural Resources Management*, Marena Research Project Working Paper No. 4 (UK Department for International Development).
- Welch, C. E. (1995) *Protecting Human Rights in Africa: Strategies and roles of Non-governmental Organizations* (University of Pennsylvania Press).
- The Working Group on Climate Change and Development (2006) 'Africa – Up in Smoke 2', *ActionAid* [website], <<http://www.actionaid.org/assets/pdf/Africa%20Up%20In%20Smoke%202.pdf>>, viewed 10 January 2009.
- Workneh, K. (2001) *Traditional Oromo Attitudes Towards the Environment: an Argument for Environmentally Sound Development*, Social Science Research Report Series, No. 19. (Addis Ababa).

Climate change to conflict?

Climate change is said to lead to conflict, as available resources dwindle and the competition for resources increases. From this perspective, the report "Climate to Conflict? Lessons from Southern Ethiopia and Northern Kenya" attempts to explain the relationship between environmental/climatic factors and the conflict dynamics in the Horn of Africa. Through its analysis and conclusion, it has shown that deterioration in the climate and environment alone may not lead to conflict, as local populations have learned to adapt to their environments. It is when it becomes connected with other social, political and economic factors that exacerbate scarcity that conflicts become more likely.



Fafo

P.O.Box 2947 Tøyen
N-0608 Oslo
www.fafo.no/english/

Fafo-report 2010:09
ISBN 978-82-7422-722-4
ISSN 0801-6143
Order no. 20153