

UNIVERSITY OF NAIROBI

**FORMS OF NATURAL RESOURCE-BASED CONFLICT AND
CONFLICT RESOLUTION MECHANISMS: A CASE OF
BELEDWEYNE DISTRICT, HIIRAN REGION - SOMALIA**

BY

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DECLARATION

I, the undersigned, declare that this is my original work, and that it has not been presented to any other university or institution of higher learning for academic credit.

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DEDICATION

This work is particularly dedicated to all men, women and children of my homeland Somalia, who have never known peace in their lives due to a long period of civil war, mainly caused by bad politics, as well competition for scarce natural resources. It is my humble hope that by studying the pages of this research project, you will be able to find solutions and consolation to some of your questions pertaining natural resource-based conflict in your motherland. Likewise, may your cry, pain and suffering never go unrewarded; for a new day of peace is reckoning, slowly but surely!

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My heartfelt sentiments of gratitude go to my family members: to my father, my mother and all my siblings: thank you for bringing me into this world and for showing me by example what it means to cherish peace and hard work.

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May God bless you all.

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ACRONYMS AND ABBREVIATIONS

ADRA	Adventist Development and Relief Agency
AMISOM	Africa Union's peacekeeping Mission in Somalia
APD	Academy for Peace and Development
ASAL	Arid and Semi-Arid Lands
FAO	Food and Agricultural Organization
ICGLR	International Conference of the Great Lakes Region
ICRC	International Committee of the Red Cross
IGAD	Inter-Governmental Authority on Development
KIQs	Key Informant Questionnaires
NFD	Northern Frontier District
NGOs	Non-Governmental Organizations
PTSD	Post Trauma Stress Disorder
TFG	Transitional Federal Government
UN	United Nations
UNESCO	United Nations Education Scientific and Cultural Organization
USAID	United States Agency for International Development

ABSTRACT

This research aimed at studying the forms of natural resource-based conflict and conflict resolution mechanisms. Beledweyne District in Hiiran Region of Somalia was selected as the case for the study since it is the main town within the region whose suburbs are adversely affected by the phenomenon of natural resource-based conflict. Specifically, the study aimed at achieving the following objectives: To find out the main types in which natural resource-based conflict is manifested; to investigate the common triggers of natural resource-based conflict; to explore the main effects of natural resource-based conflict at community and family levels; and to ascertain the mechanisms of conflict resolution in natural resource-based conflict. In order to achieve the above-mentioned objectives, the study was divided into five main chapters, each with a number of sections and sub-sections. The study employed a descriptive research design, where opinions and attitudes of key informants were analyzed and presented. The sample size for the study was drawn from groups (strata) of women, youth, scholars, clan elders/religious leaders, local administrators and NGOs using both stratified and purposive random sampling procedures. Data was collected using key informant questionnaires.

The data that was collected was later subjected to both quantitative and qualitative analysis techniques, where quantitative data was analyzed using the SPSS tool, while qualitative data was analyzed using thematic grouping and content analysis. The analyzed data was interpreted and presented in form of frequency distribution tables, pie chart and bar graphs. From the findings, the study found that natural resource-based conflict was mainly manifested in terms of clan wars or conflicts, destruction of property, raiding of livestock, displacement of families and loss of human lives. The findings also revealed that lack of enough water and land for farming and grazing were some of the main causes or triggers of conflict in Beledweyne District. The study therefore recommends that there is need for the government and other key stakeholders to try and provide viable alternative solutions to the affected populations of natural resource-based conflicts. The study also recommends that there is need to encourage modern forms of farming and proper utilization of the available land – such as zero grazing, crop rotation, mixed farming and irrigation of semi-arid lands as alternatives to pastoralism and monoculture farming. There is also need for the government to provide biogas as an alternative to excessive cutting down of trees and charcoal-burning.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Gilligan and James (2001) hold that globally, conflicts are a marked feature in the evolution of human societies, and arise out of adversarial relations between individuals and groups. According to them, conflicts can be caused by a number of factors, ranging from human causes (such as fighting over control of natural resources) to natural causes (such as concentration or scarcity of minerals in certain geographical locations of the world). When conflicts occur, especially violent conflicts, they account for loss of human life, destruction of property, the collapse of the state, environmental degradation, refugee flows, internal displacements and generally lower levels of development in conflict prone zones. Pruitt and Jeffrey (2009) define conflict as the alleged divergence of interest, or a belief that parties' current aspirations cannot be achieved simultaneously. According to them, conflicts are differentiated by their tractability.

Many countries in Africa have experienced long periods of conflicts, including full-blown civil wars. Some of these conflicts are as a result of bad politics and weak governance structures, while others (perhaps most of them) have their basis in natural resources. For instance, Somalia has been in chaos ever since the collapse of the Siad Barre regime in 1991. Conditions worsened when a UN Humanitarian Mission Mandate ended in 1995, ushering in a regime of total anarchy among different clans and communities (Leeson, 2006). The Transitional Federal Government (TFG) was later created, but it has also failed to establish stable governance systems, forcing the country to rely on the African Union's peacekeeping Mission to Somalia (AMISOM) to protect civilians. All along, natural resources (such as forests, minerals and land) and economic activities have continued to be used by warlords to their own advantage (Mubarak, 2007). In the midst of drought, the destruction of the natural, social and economic infrastructure, asset stripping, 'clan-cleansing' and the disruption of food supplies caused a famine in which an estimate of 250,000 died; those who suffered most came from the politically marginalized and poorly armed riverine and inter-riverine agro-pastoral communities in the south, including residents of the region of Hiiran (Powell, Ford and Nowrasteh, 2006).

In addition, other Somalis also suffered waves of invasions from the better-armed militia from the major clans of Galjecel, Xawadle and Guundhabe in Hiiran region (Ahmed, 2000). Civilians in war zones were also subjected to war atrocities, some of them related to access and use of natural resources (such as water and land), while most survivors suffered the psychological after-effects of witnessing the destruction of war, which is referred to as post-trauma stress disorder or PTSD. However, on the flipside, some researchers have noted that the Somalia economy actually fared better during the armed conflict period than under the centralized rule before 1991. For instance, Powell, Ford and Nowrasteh (2006) observe that in comparison with other Sub-Saharan African countries, Somalia has had a comparable, if not better, level of progress in many economic and social welfare indicators. Similarly, Leeson (2006) holds that there has been economic progress despite the destruction of all public infrastructures - such as electricity production and road network. He further maintains that the collapse of the state led to lifting of regulations on urban commerce. This allowed business in the cities to flourish, and pastoral and agricultural production to improve in rural areas. This has made Somalia to be the biggest producer of cattle in the East African region to date (Powell, Ford and Nowrasteh, 2006).

When conflicts arise, they need to be resolved the earliest time possible to avoid the negative consequences that accompany them. Eberlee (2009) defines conflict resolution as a social situation where the armed conflicting parties in a an agreement resolve to peacefully live with, and/or dissolve their basic incompatibilities and, henceforth, stop to use arms against one another; that is to say, conflict is transformed from violent to non-violent behaviour by the parties themselves, not by somebody else - for instance, an outsider or third party (Homer-Dixon, 2008). Putnam and Julia (2003) postulate that the process of conflict management lays the ground for the more effective conflict resolution, which is the resolution of the underlying incompatibility in a conflict and mutual acceptance of each party's existence. Nonetheless, Zehr and Howard (2009) argue that both conflict resolution or negotiation and conflict management aspects are needed to arrive at a positive result. Other scholars have argued that conflict management is a successful tool for resolving conflicts over a long period of time, and creates the foundation for effective conflict resolution (Rene, 2000; Pkalya, 2006).

Chevalier and Buckles (2005) argue that there is a difference between conflict resolution or settlement and management: according to them, conflict settlement connotes the notion of power and does not address the root causes of the conflict, but re-adjusts and regulates

conflict relationships, while resolution stresses the importance of addressing the needs. Sharing similar views, Rogge (2003) holds that conflict resolution as a concept has been conventionally associated with conflict containment, and is defined as the aims to limit and avoid future violence by promoting positive behavioural changes in the parties involved. According to him, conflict resolution can be expressed in terms of violence, bilateral negotiations, or by the involvement of a third party acting as an arbitrator or as a mediator, which occurs within the context of a crisis or war.

Building on the concept of mediation in conflict resolution, Ayling and Kelly (2007) define the role of third party mediators in conflict management as being directed towards helping the actors in conflict to realize their own interests when various problems threaten to disrupt or downgrade their bargaining relationship. For them, conflict resolution mechanism approaches – such as mediation or arbitration – are those utilized when the prospects for conflict resolution seem far off, but the dynamics of conflict demand that something is done to contain it. In line with this, APD (2006) have broadly categorized conflict resolution mechanism approaches into four: threat-based, deterrence-based, adjudicatory and accommodations. According to Bercovitch (2001), each of the four approaches - whether in relation to conflict or its management - carries with it different ramifications and consequences, entails different costs, demands different resources, and may succeed or fail under different circumstances.

1.2 STATEMENT OF THE PROBLEM

The Republic of Somalia has been facing security and governance difficulties for more than two decades now (APD, 2014). The bombing and shelling in 1988 of the second largest city in the country, Hargeysa, followed by the collapse of the Siyaad Barre's dictatorship in 1991, plunged the country into a violent civil war. International efforts to establish a functional central government have so far proven elusive and, in some cases, even counter-productive (APD, 2006). Despite the 2008 UN-brokered peace agreement in Djibouti, the situation on the ground still remains tense even today, particularly in southern-central Somalia of Hiiran region. The internationally sponsored Transitional Federal Government (TFG) has not yet managed to expand its authority further than a few miles within the capital city, Mogadishu; the humanitarian situation is highly critical, and has been aggravated by the resurgence of violence since 2006 (Bercovitch, 2001).

The flow of refugees to neighbouring countries (such as Kenya and Uganda) put an additional strain on the political stability of the region, while the allegiance of al-Shabaab to al-Qaeda in 2007 reinforced the fear that Somalia might become a safe haven for trans-national jihadists and terrorists to launch attacks in the region and, possibly, even in Western countries, a fear that has become a reality today (Buckles and Rusnak, 2005). In addition, the prolonged drought - as a result of climatic change caused by global warming - has put an extra strain on the available natural resources for human and animal use, thus, aggravating the situation on the ground. As a result of the shifting weather patterns, individual members and even entire communities, especially those that are rooted in farming or pastoralism, are forced to move from place to place in search of green pastures for animals, land for farming and water for human and domestic use.

This movement sometimes causes friction or disagreements between or among communities, leading to conflicts (fighting). To complicate the issue of conflict in Somalia even further is the fact that since the 1991, when the Siyaad Barre regime fell, different communities have been divided along clan lines, with each clan competing for not only for political power and influence, but also for dominance over access and use of the scarce natural resources. For instance, according to Mubarak (2007), inequitable access and use of natural resources among the major clans in Hiiran region – such as Galijecel, Xawadle and Guundhabe – has been the main obstacle to the realization of peace and end to the civil war in Somalia. For him, there is a big gap between the rich and the poor, especially in terms of fair sharing of the country's economic resources. Similar sentiments are echoed by Ahmed (2005) who holds that the unequal distribution and sharing of Somalia's key natural resources has helped fuel the civil war in Somalia among different clans and communities; hence, the struggle for dominance over ownership of natural resources has been at the heart of the unending search for peace and stability in Somalia. Thus, unless the issue of natural resources is effectively and conclusively addressed, the resolution to the raging conflict will be but a mirage.

A more comprehensive approach towards the Somalia conflict therefore urgently needs to be adopted; one that would address the root causes of conflict and violence in the country, and not just mere symptoms. This also makes the search for enduring peace-building and conflict-resolution mechanisms to be more urgent today than ever. Thus, this study sought to fill the above existing research gaps on conflict resolution, particularly in reference to Somalia, by shifting the focus away from previous studies that have mostly concentrated on political-

governance nature of conflict (such as those conducted by Galtung, 2005; Gilligan and James, 2001; Moore, 2006) to natural resources as the root cause of conflict in Somalia.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to investigate forms of natural resource-based conflict and conflict resolution mechanisms. Beledweyne District of Hiiran Region-Somalia was selected as the case for study. This is because being an arid and semi-arid area (ASAL), conflicts arising as a result of scramble for scarce natural resources are a common phenomenon.

1.4 RESEARCH QUESTIONS

The study sought to answer the following specific research questions:

- i. What are the main types in which natural resource-based conflict is manifested?
- ii. What are the common triggers of natural resource-based conflict?
- iii. What are the main effects of natural resource-based conflict at community and family levels?
- iv. Are there any mechanisms of resolving natural resource-based conflict?

1.5 OBJECTIVES OF THE STUDY

The specific objectives that guided this study were as follows:

- i. To find out the main types in which natural resource-based conflict is manifested;
- ii. To investigate the common triggers or causes of natural resource-based conflict;
- iii. To explore the main effects of natural resource-based conflict at community and family levels; and
- iv. To ascertain mechanisms of conflict resolution in natural resource-based conflict.

1.6 SIGNIFICANCE OF THE STUDY

This study will be of great importance to a number of stakeholders, especially the local leaders in the Somalia community, by helping them to understand the forms in which natural resource-based conflict is manifested, its causes and mechanisms of resolving it. Hopefully, this will help in positively addressing the inter-ethnic conflict in Somali and in other parts of the world, which is fueled by competition over natural resources in the country. The study will also be of great significance to government agencies and other policy makers by providing them with critical information that they require in making more responsive and progressive laws and policies relating to natural resource-based conflict. The study also envisions that having knowledge of forms of natural resource-based conflict is useful in

designing and implementing adequate management strategies for conflict practitioners in prolonged conflict areas, and also add to existing body of knowledge and capabilities in the area of conflict management to enhance peace in the entire world.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

The scope of this study was to investigate forms of natural resource-based conflict and conflict resolution mechanisms. This was achieved by covering the following aspects of the study objectives: main manifestations of natural resource-based conflict, which include inter-clan and intra-clan wars, and family conflicts; common triggers of natural resource-based conflict, which include scarcity of water, competition over land for farming and grazing, deforestation and exploitation of rivers; main effects of natural resource-based conflict, which include loss of human and animal lives, displacement of populations and destruction of property; and mechanisms of resolving natural resource-based conflict, which include use of customary law, third-party mediation efforts and arbitration.

The researcher selected Beledweyne District as the research location because it is the main town in the region, and one whose suburbs are hardest hit by natural resource-based conflicts in the south-eastern region of Somalia. This therefore makes the choice of this area suitable for the current research. Insofar as limitations of the study are concerned, the current study did not cover the following areas or aspects of conflict: human causes of conflict, i.e., civil and political conflict; and international conflict mediation or resolution efforts.

1.8 DEFINITION OF KEY TERMS USED IN THE STUDY

1.8.1 Conflict Resolution: This term refers to efforts to increase cooperation among the parties to a conflict and extend their relationship by addressing the situations that led to the dispute, fostering positive attitudes and allaying mistrust through reconciliation initiatives, and building or amplifying the institutions and processes through which the parties interact (USAID, 2009).

1.8.2 Forms: The word form means several or many different ways in which something is seen, experienced or produced (Merriam-Webster, 2015). It can also refer to the shape and structure of something, including the way in which a thing exists, acts, or manifests itself. In this study, the term form has been used to encompass the various types, triggers and effects of natural resource-based conflict, as well as mechanisms of resolving such conflict.

1.8.3 Manifestations: According to Oxford Learner's Dictionary (2014), manifestation can be defined as an event, action or thing that is a sign that something exists or is happening. In this research, the term has been used to refer to civil war or conflict and family disputes as the main forms in which natural resource-based conflict occurs.

1.8.4 Mechanisms: This term refers to a method or process for getting something done within a system or organization (Macmillan Dictionary, 2014). The term mechanism has been used herein to encompass non-state conflict resolutions approaches, such as customary law (or use of clan elders/religious leaders), third-part mediation efforts and arbitration.

1.8.5 Natural Resource-based Conflict: This term has been used to refer to conflicts caused as a result of competition over scarce natural resources – such as land, water and forests. According to Gilligan and James (2001), conflicts can be categorized in terms of whether they occur at the micro-micro or micro-macro levels: micro-micro conflicts are those that occur within community groups, while micro-macro conflicts are those that occur between community groups and government, private or civil society organizations.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION AND EXPLANATIONS OF NATURAL RESOURCE-BASED CONFLICT

Conflict, leading to loss of lives, destruction of property and displacement of populations, has become a common phenomenon in the world today. Both the print and electronic media is filled with pictures and information about refugees, immigrants and asylum seekers fleeing their homelands in search of peace and better lives in other countries, especially in the US and Europe. A good number of these conflicts are as a result of poor or weak governance and leadership structures, leading to corruption and collapse of governments. However, others are caused as a result of competition and scramble for natural resources that are critical to human survival. A good example of this form of conflict is Somalia, and this is going to be part of the focus of this section.

In Somalia, clan structures – popularly referred to as *Xeer* – still continue to be the pre-dominant organizing principle of society even up to date (Putnam and Julia, 2003). The vast majority of communities, as well as social and political groups, are constituted within this system. The *Xeer* forms the basic and most influential unit around which peoples' lives, especially those in rural areas, rotates; it is the fundamental structure that holds different clans or communities together, gives the clan a sense of identity, determines clan conflicts (including family disputes) and influence the future of the clan on matters pertaining marriage (Bingham, 2006).

Unlike any other type of conflict in the world, the conflict in Somalia is special, hence warranting attention or study, because it is 'one-large-intertwined-web,' which involves a number of critical factors – such as weak governance and political systems (including clan politics), terrorism and extremism domination, and competition or fighting over control of natural resource as a result of harsh climatic conditions, where most of the south-eastern Somalia is an arid or semi-arid region (Buckles, D. & Rusnak, 2005; Castro and Ettenger, 2006). Since the end of the Siyaad Barre's regime in 1994, which was marked by dictatorship and bloodshed, Somalia is yet to experience real peace and development. Clan elders, the political class, NGOs and the international community have tried to mediate peace efforts with some level of success, but much still needs to be done. Part of the reason why

sustainable peace process is still elusive is the fact that in Somalia, clan factor is a steady source of political problems and conflict; because of strong clan solidarity which is facilitated by the issue of private land ownership, local land disputes between individuals or families over access to natural resources bear a high potential to escalate into wider inter-community conflicts that involve various clan segments.

Consequently, all forms of conflicts in Somalia bear a clan component or mark. Such tendencies have been fueled by the fact that conflicts over natural resources often intermingle with other clan interests, including political and economic issues, as well as the collective memories of past events in clan relations; for instance, when it comes to the establishment of new administrative units or the positioning of polling stations, local conflicts over land ownership or the control over land are usually not primarily a livelihood issue of nomads and farmers, but an instrument of politicians to gain influence in politics (FAO, 2005; FAO 2002). Thus, in the context of Somali's decentralization and democratization process, the occurrence of such 'multi-dimensional conflicts' is likely to continue or increase (USAID, 2009).

2.2 A BRIEF ON CONFLICT RESOLUTION

Conflict resolution refers to efforts that are meant to increase cooperation among the parties to a conflict and extend their relationship by addressing the situations that led to the dispute, thus fostering positive attitudes and allaying mistrust through reconciliation initiatives, and building or amplifying the institutions and processes through which the parties interact (USAID, 2009). Conflict resolution can also be defined as a social situation where the conflicting parties in a voluntary agreement resolve to peacefully live with and/or dissolve their basic incompatibilities and, henceforth, stop to use arms against one another (Buckles, and Rusnak, 2005). In addition, Castro and Ettenger (2006) postulate that the process of conflict resolution is founded on effective process of conflict management, which lays the ground for effective resolution of the underlying incompatibilities in a conflict and mutual acceptance of each party's existence.

Nonetheless, Eberlee (2009) argues that both conflict resolution and the conflict management aspects are needed to arrive at a positive and sustainable result, which is peace. However, on his part, Galtung (2005) holds that there is a difference between conflict settlement and conflict resolution: conflict settlement connotes the notion of power, and does not address the root causes of the conflict, but re-adjusts and regulates conflict relationships, while resolution

stresses the importance of addressing the real needs of the aggrieved parties. According to Gilligan and James (2001), conflict resolution can be achieved through violence, bilateral negotiations or by the involvement of a third party acting as an arbitrator or as a mediator. Similarly, Rioux, (2000) observes that an intervention by a third party occurs within the context of a conflict, crisis or war. Bercovitch (2001) defined the role of third party mediators in non-violent conflict management as being directed towards helping the actors in conflict to realize their own interests when various problems threaten to disrupt or downgrade their bargaining relationship, while managing a conflict by violent means through militarized intervention.

Furthermore Meur, Hochet, Shem and Toure (2006) maintain that during the process of conflict resolution, various mechanisms or approaches should be utilized. Such mechanisms can include use of mediation efforts, arbitration, civil societies, religious leaders and local mechanisms. According to the authors, such mechanisms are normally utilized when the prospects for conflict resolution seem far off, but the dynamics of conflict demand that something is done to contain it. In the case of Somalia, customary law is one of the commonest mechanisms of resolving most conflicts, including natural resource-based conflicts. This is because, according to Mwagiru (2003), clan structures continue to be the predominant organizing principle of society; hence, the vast majority of communities, social and political groups are constituted within this system. Since the end of the Siad Barre regime in 1991, customary law, as exercised by clan elders and religious leaders, has been a guarantor for peace, security and stability: elders and politicians are able to mediate between different factions using their clan links (Odendaal and Olivier, 2006).

However, despite being the nucleus of the Somalia society, the clan factor is also a steady source of political problems. According to Bush (2004), as a result of strong clan solidarity, local land disputes between individuals or families over access to natural resources bear a high potential to escalate into wider inter-community conflicts that involve clan segments of both parties. Consequently, all conflicts in Somalia contain a clan component (Ahmed, 2005). Such tendencies are forced by the fact that conflicts over natural resources often intermingle with other clan interests, including political and economic issues, as well as the collective memories of past events in clan relations (Mwagiru, 2003). For instance, when it comes to the establishment of new administrative units or the positioning of polling stations, local conflicts over land ownership or the control over land are usually not primarily a livelihood issue of

nomads and farmers, but an instrument of politicians to gain influence in politics (FAO, 2005).

2.3 FORMS OF NATURAL RESOURCE-BASED CONFLICT

The term form refers to the different ways in which something is seen, experienced or produced (Merriam-Webster, 2015). The term can also be used to refer to the shape and structure of something, including the way in which a thing exists, acts, or manifests itself. In this chapter, the term forms will be used to encompass the various aspects of the study objectives, which are the types, triggers and effects of natural resource-based conflict, as well as mechanisms of resolving such conflict. These aspects will be discussed herein.

2.3.1 Manifestation of Natural Resource-based Conflict

According to Oxford Learner's Dictionary (2014), the term manifestation refers to an event, action or thing, which is a sign that something exists or is happening. In this study, the term manifestation refers to the different ways in which natural resource-based conflict exists in Somalia, including civil war, clan conflict and family disputes. Historically, the Somali speaking peoples of the Horn of Africa have always regarded themselves as one people and have therefore never excused the colonial powers for the Balkanization of the Somali nation into separate entities. This factor became a source of friction and tension between the new Republic of Somalia - created in 1960 after the amalgamation of the former British Somaliland and Italian Somaliland - and her neighbours Kenya and Ethiopia which had large populations of Somali in the Northern Frontier District (NFD) and the Ogaden regions respectively. Upon assuming the reins of power in 1960, the leaders of the new Somalia Republic made it abundantly clear that the reunification of all Somali speaking peoples would be a major goal of their country's foreign policy. Indeed the new Somalia Republic demanded that the British government should grant the district political autonomy which would enable it to rejoin Somalia before Kenya could be granted independence.

According to Gilligan and James (2001), conflicts can be categorized in terms of whether they occur at the micro-micro or micro-macro levels: micro-micro conflicts are those that occur within community groups, while micro-macro conflicts are those that occur between community groups and government, private or civil society organizations. In addition, Cartwright and Jenneker (2005) hold that micro-micro conflicts can be further categorized as taking place either within the group directly involved in resource management regime (i.e., intra micro-micro conflict) or between this group and those not directly involved (i.e., inter

micro-micro conflict). The commonest manifestation of conflicts in Somalia are those that occur within clans (i.e., micro-micro), where members of the same clan or community keep fighting over use of natural resources. In some cases, however, such conflicts take place across members of different clans, especially the three biggest clans of Galjecel, Xawadle and Guundhabe.

Cartwright and Jenneker (2005) further hold that intra micro-micro conflicts mainly involve conflicts, such as disputes over land and resource ownership - for instance, between private and communal land owners; disputes over land boundaries between individuals or groups; latent family and relationship disputes; disputes due to natural resource projects being captured by elites and/or those who happen to own resources of a higher quality; breaking of operational rules - such as protection agreements for grazing areas, fish net sizes, forests or misappropriation of funds; and disputes over the unfair distribution of work and profits. Insofar as inter micro-micro conflicts are concerned, they take the main forms: conflict between land owners and resource users; conflict between indigenous groups and more recent settlers; disputes generated by jealousy related to growing wealth disparities; lack of co-operation between different communities and groups; disputes over renewal arrangements for leased land; internal land ownership disputes ignited by the speculation activities of commercial companies; and resentment built up due to lack of representation on village committees.

On the other hand, micro-macro conflicts: contradictory natural resource needs and values – such as those occurring between wildlife habitat protection and local livelihood security; cultural conflicts between community groups and outsiders; disputes over project management between community groups and outside project-sponsors; disputes caused by political influence (at national, provincial or local levels); disputes arising from differences between the aspirations of community groups and expectations of NGOs or commercial companies; and off-site environmental impacts affecting unintended third-parties (Cartwright and Jenneke, 2005; Gilligan and James, 2001).

2.3.2 Common Triggers or Causes of Natural Resource-based Conflict

Natural resources are an important component in understanding the nature of conflict in Africa because of their effect on such conflict. Natural resources such as water sources, forests and land can be said to be some of the commonest triggers or causes of natural resource-based conflicts not only in Africa, but in other parts of the world as well. Arguably,

according to Praeger (2002), natural resources are embedded in an environment, geographic, geo-political and interdependent space, where actions by one individual or group may generate effects far beyond specific localities or even national jurisdictions; this is particularly true of shared trans-boundary resources. A good example of this is provided by the issues surrounding the Mau Forest complex in Kenya: besides the water and security vulnerabilities, are threats related to loss of virgin forest cover in the upper parts of the catchment area and along rivers, environmental crimes related to water pollution, and high levels of water use by industries and urban settlements (Creswell, 2004). These problems have provided serious environmental security problems, for instance, in terms of decreasing water supplies, competition for and conflicts over the available water, inappropriate and poorly planned land use and ineffective water resource management systems in the country (Hakimani, 2009).

It is also important to note that natural resources and their utilization have complex ecological realities and processes; this in turn has an effect on the direct consumers of the environment (Homer-Dixon and Blitt, 2008). There seems, in all this, to be a lack of appreciation of the fact that natural resources conflicts and general environmental dangers are global in scale and trans-boundary in nature, and affect all people everywhere (Cartwright and Jenneker, 2005). Part of the problem is the slow pace of environmental change, which in turn affects the distribution of natural resources; for instance, annual variations in global climatic change are relatively small, and are therefore easily overshadowed by more dramatic and seemingly more important challenges. This is where climate change imposes an additional burden on an African polity already grappling with huge problems that are simply added to by policy processes to curb climate change (Ahmed, 2005).

Thus, according to Adan and Pkalya (2006), environmental conflict is only made explicit when communities establish an immediate logical connection between environmental degradation and the activities of specific social agents. This is a situation within social conflict theory whereby the roles of certain actors provide visible and public evidence of latent situations which, if not dealt with, would eventually lead to overt contestation of access to meager resources. This role is effectively taken by sub-regional organizations or third party actors whose mandate is conflict management – such as International Conference of the Great Lakes Region (ICGLR) and Inter-Governmental Authority on Development (IGAD) – whose role is partly to help member states and contesting protagonists to recognize the hidden

conflicts that need to be ‘nipped in the bud’ before maturing into an overt conflict cycle (Alan, 2008). Another reason why natural resources play a leading role in social conflicts has to do with social contexts and power relations within the public sphere (Buckles and Rusnak, 2005).

Natural resources are also embedded in a shared social space where complex and unequal relations are established among a wide range of social actors, for instance, in the case of the production of primary products, agro-export producers and farmers, small-scale farmers, ethnic minorities, government agencies, etc (FAO, 2005). As in other fields with political dimensions, those actors with the greatest access to power are able to control and influence decisions regarding natural resources in their favour (Cartwright and Jenneker, 2005). It is also important to note that natural resources are subject to increasing demand, and that they are unequally distributed; such a situation is better explained normatively by the neo-Malthusian theory on resource conflicts, which gives a multi-disciplinary and multi-causal explanation of why resource conflicts occur (Buckles and Rusnak, 2005). Named after the English demographer Thomas Robert Malthus, this theory uses the ‘scarcity’ variable to explain the role of natural resources in conflict. The neo-Malthusian school of thought argues that rapid population growth, environmental degradation, resource depletion and unequal resource access combine to exacerbate poverty and income inequality in many of the world’s least-developed countries; these deprivations are easily translated into grievances, increasing the risks of rebellion and social conflict (Buckles and Rusnak, 2005).

2.3.3 Effects of Natural Resource-based Conflict at Community and Family Levels

According to Gilligan and James (2001), internal disputes can arise from local environmental degradation, which may include the introduction of an effluent-releasing factory in a human settlement area that affects waterways and air quality. Equally, ethnic clashes can occur when population migration increases demand for scarce resources like land for cultivation (FAO 2002). This is the case in agrarian economies, like those in Eastern Africa, where land is exploited via tenure systems and where there is a large cultural identification with ancestral land. Environmental change may involve land and water degradation, over-exploitation, the illegal exploitation of wildlife and aquatic resources, extensive land clearing or drainage, or climate change. These increasing demands in turn have multiple social and economic dimensions, including population growth, changing consumption patterns, trade liberalization, rural enterprise development, and changes in technology and land use.

Natural resource scarcity may also result from the unequal distribution of resources among individuals and social groups, or out of ambiguities in the definition of rights to common property resources; as Bingham (2006) notes, the effects of environmental scarcity - such as constrained economic production, migration, social segmentation and disrupted institutions - can either singly or in combination produce or exacerbate conflict among groups. In addition, Moore (2006) observes that natural resource-based conflicts have more devastating effects at community and family levels than even at national or international levels; this is because for him any environmental degradation practices affect communities or families first, and in a more direct manner. He also observes that it takes time to mobilize and distribute critical help needed to deal with effects of natural resource-based conflicts down at the family level.

2.3.4 Mechanisms of Conflict Resolution in Natural Resource-based Conflict

The term mechanism refers to a method or process for getting something done within a system or organization (Macmillan Dictionary, 2014). This term will be used herein to encompass various approaches or strategies of resolving natural resource-based conflict in Somalia, including: customary law; third-part mediation efforts; arbitration; use of NGOs, the civil society and religious leaders; among others. According to USAID (2009), a problem in many countries is that formal conflict resolution mechanisms for natural resource-based conflicts are weak or effectively non-existent; many formal court systems are severely overburdened, with insufficient capacity in terms of personnel and expertise to handle a huge number of cases that come before them. In Somalia, it is precisely land related disputes that make up the majority of the civil cases that come before the courts and overlapping individual claims are the most common nature of such cases (Paul, 2000). Due to bureaucratic hassles inherent in the Somalia judicial system, just like in many other African judicial systems, it is often difficult to resolve such land disputes quickly.

Consequently, land cases can languish in courts for many years. Also the fact that property documents are easily forged and corruption is rampant in the system poses another challenge to the judiciary (APD, 2006). In addition, for many ordinary people, the courts appear expensive, time-consuming, unpredictable and, even corrupt in themselves; the language of lawyers and judge also appears alien and complex. This has led to bad reputation of the formal system, forcing people to look for alternative conflict resolution mechanisms – such as clan dispute resolution committees and local third-party mediation efforts (Ayling and Kelly, 2007).

As a result of the inefficiency of formal courts, there is a continuing if not growing recognition of the importance of non-state mechanisms to resolve disputes; for instance, the use of local councils and committees consisting of clan elders and religious groups has proved to be an invaluable tool in the resolution of land disputes, especially in African communities. In most cases, these councils are not formally established and thus, they come together only on an ad hoc basis; hence, in principle, their effectiveness is based on traditional legitimacy and the mutual trust of the disputants. However, these local institutions are sometimes founded within the legal framework of a country: for instance, according to the Somalia Local Government Laws of September 2014, the local district councils are mandated to have sub-committees for peace and conciliation that are responsible for the resolution of disputes arising within the district, maintenance of the public order and ensure proper use of land for all purposes (APD, 2014). The use of non-state alternatives to conflict resolution could be a promising route to reduce the burden on court systems and to ensure the accessibility of effective dispute resolution mechanisms, synchronized with the norms, customs and language of the disputants (Ayling and Kelly, 2007).

Besides local councils and committees, non-governmental organizations (NGOs) and faith-based actors have provided financial, emotional and spiritual support to war affected communities, and promoted reconciliation and re-integration (Bouta and Nimer, 2005). Thus, the non-state initiatives and institutions have formed the foundation upon which the local conflicts have been addressed especially by local governments and communities. The civil society organizations have also been in the fore front in promoting reconciliations and dialogue among warring communities; they have also provided early warning to relevant authorities before outbreak of conflict (UNESCO, 2009).

However, APD (2014) observes that in practice, much of the-above mentioned tasks by non-state dispute resolution mechanisms (such as local councils and committees) are actually not fulfilled properly, or concentrated in the hands of the mayors and executive secretaries; thus, the ability of local councils to solve conflicts and manage land issues seems to be very limited. Also Bouta and Nimer (2005) observe that members of the local mediation councils and committees often represent the interests of the opposing parties, leaving their integrity questionable and undermining their claim to neutrality; hence, traditional mediation has become more re-active rather than pro-active. In addition, traditional conflict resolution mechanisms are slow; this is because raising awareness of a conflict, mobilizing the elders,

and finding means of transport and communication over the distance from rural areas consumes a lot of valuable time during which, conflicts often continue or escalate unnecessarily (USAID, 2009). The verdicts issued by these local mechanisms are also not necessarily binding as there is no neutral institution to enforce them. Thus, to become effective, both parties need to accept the judgment and implement it.

2.4 THEORETICAL FRAMEWORK

According to Whetten (2009), a theory consists primarily of concepts and causal relationships that relate to these concepts. A theory can also be described as a general body of assumptions and principles used to describe a particular set of facts or some observed phenomenon (Koskela, 2000). A good theory should be prescriptive, i.e., it should reveal how action (activities and tasks) contributes to the goals and objectives set to it (Whetten, 2009). This study will adopt the use of the following theories: Theory of Access; Theory of Perspectives of Conflict; Social Disorganization Theory; and Contingency Theory of Management. These theories were considered to be relevant to the present study. Following is a detailed discussion of each of the four theories.

2.4.1 Theory of Access

The Theory of Access was pioneered by Ribot and Peluso (2003). According to them, people's access to, and use of, certain critical resources – such as water, land, minerals and the legal system – depend mainly on their socio-economic and political power. Thus, in every system or society, there will be a group of those who will have more control and access to and use of given limited (but precious) resources due to their influence (such as senior government officials, politicians, and wealthy businessmen and women), while there will also be those who will be 'alienated' and 'cut off' from access and use of such resources due to their lack of influential power (such as the poor), rendering them landless or as squatters in the case of access to land.

This theory therefore helps us to understand why some individuals, groups of people, communities or institutions benefit more from resources, whether or not they have rights to them, while others do not. Hence, access is concerned with understanding the reasons as to why certain people or communities derive more benefits from use of resources than others, which go beyond their right to property ownership (Bouta and Nimer, 2005). According to Langridge, Christian-Smith and Lohse (2006), access is defined broadly as the ability of a community to actually benefit from a certain essential resource, and it includes a wider range

of relations than those derived from property ownership rights alone. Ribot and Peluso (2003) similarly define access as the ability to benefit from things – including material objects, persons, resources, institutions and symbols. They further argue that access emerges from an expanded array of means, processes and relations within society, that such a society or group uses to coin certain ‘mechanisms’ that distinguishes how the society gains, controls, and maintains access.

According to Ribot and Peluso (2003), these mechanisms, include such structural and relational processes as technology, capital, markets, labour, knowledge, authority, identities, social relations, as well as rights sanctioned by law, custom, or convention. For instance, technological expertise can help to facilitate the construction of infrastructure, including storage and transmission systems that provide physical access to water for particular communities, whereas social relations can provide links to individuals and institutions with the ability to make and implement laws, as well as networks of friendships and obligations that can strongly influence the ability to gain and maintain access to the distribution and use of a resource.

According to Musifiky (2002) and Galtung (2005), right to property ownership and access are concerned with relations among people in regard to benefits or values for their appropriation, accumulation, transfer, distribution and so forth. Similar views are shared by Cartwright and Jenneker (2005) who maintain that benefits are important because people, institutions and societies live on and for them, and clash and cooperate over them. Although related, there is however a fundamental difference between access to property (resource) and property ownership. According to Ginger et al. (2012), this difference lies in the distinction between ‘ability,’ which directly relates to access and ‘right,’ which directly relates to property ownership.

According to Ginger, Emery, Baumflek and Putnam (2012), ability is akin to power, which can be understood in two senses - first, as the capacity of some actors to affect the practices and ideas of others and, second, as the power emergent from, though not always attached to, people. Access therefore, is about all possible means by which a person is *able* to benefit from things, and its maintenance requires expending resources, powers or ‘abilities’ to keep a particular sort of resource access open. Property, on the other hand, concerns some kind of socially acknowledged and supported ‘claims’ or ‘rights’ - whether that acknowledgment is

by law, custom or convention (Zehr and Howard, 2009; Bouta and Nimer, 2005). Rights-holders enjoy a certain kind and degree of social power. The rights associated with law, custom and convention are not always equivalent: some actions may be illegal under state law, while maintaining a socially sanctioned base in customary or conventional realms of collective legitimacy, or vice versa.

2.4.2 Perspectives of Conflict Theory

The Theory of Perspectives of Conflict is attributed to Johan Galtung. Born in 1930 in Norway, Galtung is a renowned sociologist, mathematician and the principal founder of the discipline of peace and conflict studies. He co-founded the Peace Research Institute Oslo in 1959, serving as its director until 1970, and established the *Journal of Peace Research* in 1964 (John, 2010). In 1969 he was appointed to the world's first chair in peace and conflict studies, at the University of Oslo. Galtung is known for contributions to mathematics and sociology in the 1950s; political science in the 1960s; economics and history in the 1970s; and macro history, anthropology and theology in the 1980s. He has developed several influential theories, such as the distinction between positive and negative peace, structural violence, theories on conflict and conflict resolution, the concept of peace-building, the structural theory of imperialism, and the theory of the United States as simultaneously a republic and an empire (John, 2010).

Galtung experienced World War II in German-occupied Norway and, as a 12-year-old boy, he saw his father arrested by the Nazis. By 1951 he was already a committed peace mediator, and elected to do 18 months of social service in place of his obligatory military service. After 12 months, Galtung insisted that the remainder of his social service be spent in activities relevant to peace, to which the Norwegian authorities responded by sending him to prison, where he served six months. While Galtung's academic research is clearly intended to promote peace, his focus has with time shifted more towards concrete and constructive peace mediation. According to his Theory of Perspectives of Conflict, Galtung holds that there are four traditional, but unsatisfactory, ways in which conflicts between two parties are handled, i.e., where: A wins and B loses; B wins and A loses; the solution is postponed because neither A nor B feels ready to end the conflict; and a confused compromise is reached, which neither A nor B are happy with (Leeson, 2007). A and B in this case represent two conflicting parties in conflict resolution.

Galtung tries to break with these four unsatisfactory ways of handling a conflict by finding a ‘fifth way,’ where both A and B feel that they have won, i.e., promoting the idea of a ‘win-win’ situation. In his theory of perspectives of conflict, Galtung insists that the basic human needs – such as survival, physical well-being, liberty and identity – should be respected, always, and should be fully promoted especially during times of conflict (John, 2010). His concepts or perspectives of peace-building and mediation are based on the creation of sustainable peace. According to him, effective peace-building structures in conflict resolution need to address the root causes of conflict and support local capacity for peace management and conflict resolution (Robert, 2004).

His perspective of conflict is divided into two key concepts: structural violence, which is widely defined as the systematic ways in which a regime prevents individuals from achieving their full potential (e.g., through the use of institutionalized racism and sexism; and negative versus positive peace, which introduced the idea that peace may be more than just the absence of overt violent conflict (or negative peace), and will likely include a range of relationships up to a state where nations (or any groupings in conflict) might have collaborative and supportive relationships (i.e., positive peace) (Leeson, 2007). Thus, Galtung’s theory of perspectives of conflict is relevant to the present study by bringing to fore the fact that in a situation of conflict, different stakeholders are likely to have varied opinions and view-points on the same conflict. This theory is also significant as it underscores the fact that the basic human needs – including people’s physical well-being, liberty and identity – should always be respected, promoted and upheld above all other values, particularly during moments of conflict.

2.4.3 Social Disorganization Theory

Social Disorganization Theory is attributed to Thorsten Sellin. According to this theory, conflict arises as a result of the social system being constituted by diverse cultural groups with conflicting interests, values and norms - an idea deeply rooted in a Marxist image of social inequality and competition (Roger and Feldman, 2004). Within the Conflict perspective, deviance (i.e., a shift away from the social prescribed behaviour) is conceptualized not as abnormal behaviour brought on by faulty socialization or normative ambiguity, but as a normal, political process brought about by inter-group struggle for dominance. In his theory, Sellin placed a lot of emphasis on the cultural diversity of modern industrial society; for him, law embodies the normative structure of the dominant cultural or ethnic group, and the criminal law contains the ‘crime norms, inappropriate behaviour and its

punishment, reflecting the values and interests of the groups successful in achieving control of the legislative process (Taylor, Walton and Young, 1973).

Conflict comes about when the 'conduct norms' of other less powerful groups, while reflecting on their specific social situations and experiences, come into conflict (or culture conflict) with the crime norms. This leads to the production of deviant or criminal definitions surrounding the everyday behaviour of the individual members of these less powerful groups or communities (Turk, 1969). Sellin indicated that as society diversified and became more heterogeneous, the probability of frequent conflict would increase. Sellin's future disciple, George Vold, continued to expand on his master's ideas. However, unlike Sellin who attempted to explain crime as individual law violation, Vold suggested an understanding of the social nature of crime as a product of group struggle (Macionis and Gerber, 2010). According to him, humans are by nature social beings, forming groups out of shared interests and needs. The interests and needs of groups interact and produce competition over maintaining and/or expanding one group's position relative to others in the control of necessary resources (such as money, education and employment). This competition is expressed as a political struggle/conflict with the group most efficient at controlling political processes and other resources obtaining the authority to pass laws that limit the fulfillment of minority group's needs (Roger and Feldman, 2004).

This idea led to the development of a General Conflict Theory of Crime in 1969 by Austin Turk. Turk draws on the analysis of modern society presented by Ralf Dahrendorf. Dahrendorf expanded on Marxism's emphasis on the social relations of production as a key to understanding power and focused on the struggle in a modern industrial society for institutional authority (Vold, 1958). This is power that is embedded in the structural relations, characteristic of a given society; he referred to it as 'legitimate' power that is often divorced from ownership of productive forces; power in the social institutions that dominate everyday life; and the authority vested in groups who control key positions in religious, educational, governmental and even family relations (Macionis and Gerber, 2010). This authority can be linked to economic position, but it is not necessarily dependent upon it.

Within this general framework, Turk focuses on legal conflict and criminalization. Specifically, he asks the following two questions: 'Under what conditions are authority-subject cultural and behavioural differences transformed into legal conflict?' and 'Under

what conditions do those who violate laws (norms of the authorities) become criminalized. In other words, under what circumstances are laws enforced?’ Turk’s answer to these questions is summarized in a set of six propositions as follows (Sears, 2008): Proposition 1: Conflict between authorities and subjects occurs when behavioural differences between authorities and subjects are compounded by cultural differences. Proposition 2: Conflict is more probable when those who have an illegal attribute or those who engage in an illegal act are the more organized. Proposition 3: Conflict is more probable when the subjects are less sophisticated, hence, the probability of enforcement can be conditionalized as: Proposition 4: The probability of enforcement of legal norms increases as the congruence between the cultural and behavioural norms of authorities increases. Proposition 5: The lower the power of the resisters (subjects), the higher the probability of enforcement. Proposition 6: The lower the realism of norm violators (resisters), the higher the probability of enforcement.

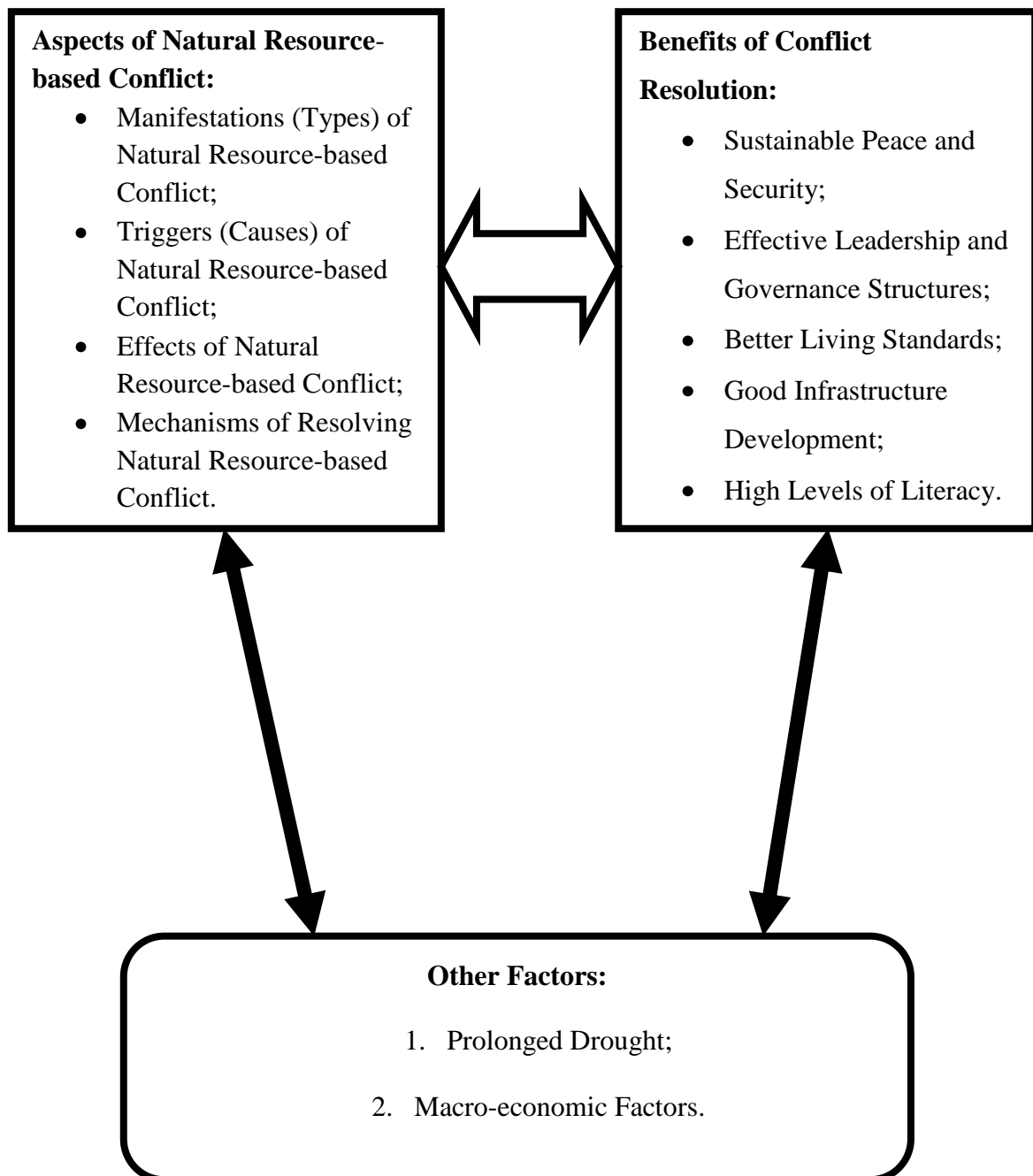
This theory is therefore relevant to the present study as it tries to unearth the root causes of conflict among communities or groups (or what the theory calls ‘inter-group struggle for dominance’): according to this theory, conflict is as a result of the social system being constituted by diverse cultural groups with conflicting interests, values and norms. These interests, in our case, are mainly driven by the desire to own, dominate and have access to the scarce natural resources. The theory further stipulates that conflict comes about when the ‘conduct norms’ of other less powerful groups, while reflecting on their specific social situations and experiences, come into conflict with the ‘crime norms’ of the more powerful individuals. This aspect is key to unlocking the Somalia conflict, as it tries to draw attention to the plight and sufferings of the less powerful (who are normally the majority in a conflict situation), hence, drawing attention of all those involved in conflict resolutions to prioritize the agenda of the less powerful in their discussion, if real peace is to be achieved.

2.5 CONCEPTUAL FRAMEWORK

Mugenda and Mugenda (2003) define a conceptual framework as a graphical or diagrammatic representation of the relationship between variables in a study. Formulating a conceptual framework helps the researcher identify the proposed relationship between the variables easily and quickly. The researcher adopted the model indicated in Figure 2.1, considering the aspects under study. The conceptual model has been divided into three areas, with each area covering a number of issues as follows: (1) Aspects of Natural Resource-based Conflict: manifestations (types) of natural resource-based conflict, triggers (causes) of natural resource-based conflict, effects of natural resource-based conflict and mechanisms of

resolving natural resource-based conflict; (2) Benefits of Conflict Resolution: sustainable peace and security, effective leadership and governance structures, better living standards, good infrastructure development and high levels of literacy; and (3) Other Factors: prolonged drought and macro-economic factors.

Figure 1: Conceptual Framework



(Source: Researcher, 2015)

2.6 KNOWLEDGE GAP

A number of studies have been conducted about the issue of conflict. Dibeh (2008) conducted a study on resources and political economy of state fragility in conflict states – such as Iraq, Lebanon and Somalia. From the findings of this study, it was revealed that Somalia has a poor resource attribute which makes it more amenable to chaos and anarchy. The study concludes that in relatively well-off fragile states, economic growth and development can be hindered by selfish formation of political coalitions. However, this study did not discuss how resource conflict, particularly natural resource-based conflict, is manifested in Somalia. This is the knowledge gap that the present study sought to address.

Another study conducted by Marchal (2006) on the causes of the present conflict in Somalia divulges into concluding that the turbulent colonial history and past of Somalia has largely contributed to its present predicament. The study therefore narrows Somalia's colonial past as the root cause of its current civil war. According to Marchal (2006), Somalia suffered from the Portuguese and British ambitions, and later came under the Zanzibar sultanate in the Indian Ocean. From then until the Italian conquest in the 1880s, Somalia was no longer the leading commercial centre. However, the researcher wonders how this could happen in a country like Somalia that is very homogenous, ethnically, religiously and culturally; the only political society in the continent which is a nation in the real sense of the word (Emeh, 2004). However, this study does not address the issue of natural resources and their contribution to the Somalia conflict, which is a key aspect of the current study and a gap that this study seeks to tackle.

A similar study by Menkhaus (2003) sought to establish the reasons behind the resilient anarchy in Somalia. The study found out that the enduring conflict in the country could mainly be attributed to the ambitions of the warlords for national domination. The study observes that the inability of one group or alliance of groups early in the civil war to dominate the national politics prevented the return to central authority and lasting peace. The study therefore recommends that the establishment of an all-encompassing democracy can be a solution to the seemingly intractable Somali conflict puzzle. However, Menkhaus' study seems to concentrate on, and give prominence to, the politics as the real cause of the civil war in Somalia. What this study does not tell us, however, is the fact that the political struggle being experienced today in the Somalia conflict is as a symptom of deeper reality – the desire and greed to control ownership, access and use of the country's natural resources. This is the knowledge gap that the present study seeks to fill.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 SITE DESCRIPTION

3.1.1 The Geography and Population of Beledweyne District

The data that was used for analysis was collected from informants who are residents of Beledweyne District. This area was selected because it is one of the administrative centres in Hiiran region in south-eastern Somalia that is worst affected by natural resource-based conflict. According to the latest UN estimates (of July 2012), Beledweyne district had a total population of about 144, 345 residents (<http://en.wikipedia.org/wiki/Beledweyne>). The district is located along the Shabelle River, 315km north-east of Mogadishu, with Bakool region to the west, Mudug to the north, Middle Shabelle to the south and Ethiopia to the north-east. Politically, Beledweyne district experienced unrest, with inter-clan fighting, which was exacerbated by the occupation of the Somali National Army in the mid-1994 until the beginning of 1995 (APD, 2006).

In 1997, devastating floods hit Hiiran region and, in particular, Beledweyne district very hard, resulting in a collapse of the economic infrastructure and destruction of the productive capacity; furthermore, two years of consecutive drought and lack of sufficient rains made worse the already fragile situation in the district (APD, 2012). However, recently there have been signs of improvement in the security situation in spite of lack of recognized local administration. Around 40% of the population of Beledweyne district constitute of semi-urban dwellers, with 35% being pastoralists and agro-pastoral, while 25% live along the Shabelle River (<http://en.wikipedia.org/wiki/Beledweyne>). Agro-pastoralists and pastoralists are considered the most vulnerable populations in the Hiiran region currently, primarily due to the poor condition of livestock, particularly cattle, as well as water shortage and failure of the harvest in rain-fed areas (APD, 2012).

3.1.2 Water and Environmental Sanitation in Beledweyne District

Water levels in rivers and wells throughout the district have gone down drastically over the last ten years, mainly due to prolonged drought, scramble for water and poor farming and livestock practices (Bingham, 2006). Many wells in the district and its suburbs have dried up, and it has become more difficult to find sufficient supplies of well water; for instance, boreholes in Buqkoosaar and Farlibax villages within the district have become the most important (and perhaps the only) source of water for domestic and animal for a long period of

time now. The level of the Shabelle River has also continued to decrease dramatically and, even currently, the water is of very poor quality; the water is even stagnant in some places (Observatoire De L’afrique, 2010). ADRA has plans to rehabilitate boreholes in Bergadiid in Beledweyne District, including Omad and Qodqod boreholes in Mataban District in Hiiran region; ICRC is also overseeing the repair of Tedan borehole in Mataban (Meur, Hochet, Shem and Toure, 2006). Sanitary conditions in Beledweyne District also remain very poor.

3.2 RESEARCH DESIGN

Cooper (2003) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. For Barton (2001), a research design is the structure of the research, the ‘glue’ that holds all the elements in a research project together. Similar views are shared by Kothari (2008) who defines a research design as the way a study is planned and conducted as well as procedures and techniques used to address the research problem. The research design therefore forms the structure of research. This study employed the use of a descriptive research design.

A descriptive research design is concerned with determining the frequency with which something occurs or the relationship between variables; it is also useful for clarifying variables and shaping hypothetical constructs (Kothari, 2008). Furthermore, using descriptive design helped the researcher to determine the characteristics of the target population (Vaus, 2001). Descriptive design involved a description and analysis of the key informants’ opinions and attitudes as reflected in the questionnaires. The unit of analysis in this study was ‘natural resource-based conflict,’ while the unit of observation included strata or groups of women, youth, scholars, clan elders or religious leaders, local administrators and NGOs. Members of these groups constituted the key informants for the study.

3.3 TARGET POPULATION

According to Barton (2001), a population is any set of persons or objects that possesses at least one common characteristic. For Gall, Borg and Gall (2003), a target population provides a solid foundation and first step upon which to build population validity of the study. Barton (2001) observes that any scientific research targets a given population through which questionnaires, interview guides, focused group discussions and observation guides are distributed so as to get the desired or the required data for analysis. The target population for this study consisted of informants from identified and selected key groups or strata in Beledweyne District. The researcher decided to pick key informants because of security

reasons. The decision to pick key informants was also informed by the fact that since these key informants come from the targeted area of study, their views and opinions would therefore be used to generalize about the views and opinions of the entire community or whole population. According to Mugenda and Mugenda (2003), at least 30% of the total population is a good representative target population. According to the UN, as at July 2012, the total population of Beledweyne district was 144, 345 residents; thirty percentage of this population translates to approximately 43, 304 residents (<http://en.wikipedia.org/wiki/Beledweyne>). It is from this target population that the research's sample size was picked.

3.4 SAMPLE SIZE AND SAMPLING PROCEDURES

A sample size can be defined as a smaller group, sub-group or sub-set obtained from the accessible population and carefully selected to be representative of the entire population, with the relevant or desired characteristics (Mugenda and Mugenda, 2003). Sampling, on the other hand, refers to the process of selecting a portion of the population that conforms to a designated set of specifications to be studied (Miles and Huberman, 1994). Sampling is advantageous since it allows the researcher to draw generalization and reduces research bias; similarly, it is extremely expensive and nearly impossible to collect data from all members of the study population (Owens, 2002).

The sample size in this study consisted of different groups or strata of respondents, drawn from the four Sub-districts or administrative centres that make-up Beledweyne district: Buundoweyn, Howlwadaag, Kooshin and Xaawotaako. The strata consisted of six different groups of women, youth, scholars, clan elders/religious leaders, local administrators and NGOs. From each of the four Sub-districts, a total of fifteen (15) key informants were purposively picked for the purpose of providing information using key informant questionnaires (KIQs). This brought the total number of informants from the four Sub-districts to sixty (i.e., $15 \times 4 = 60$). Majority of the members or informants selected from each group or category were those who had expressed good knowledge on the subject of study during the pilot study; most of them were also playing some influential leadership roles in their various communities by the time of collecting the data. The study therefore employed both stratified random sampling and purposive sampling to select the sample size and determine the sampling procedure.

The use of purposive sampling by the study helped to ensure that only participants (informants) who are knowledgeable about the topic of study are selected. The purposeful selection of the sample size by the researcher was informed by the fact that conflict in Beledweyne District is a common phenomenon that every resident within the district and its suburbs has witnessed or lived through. According to Creswell (1994), the use of purposive sampling helps to make the researcher's work easier, save time and cost, and increase the authenticity of the information to be collected. However, simple disproportionate sampling was also used alongside the selected strata in cases where stratum with greater variation - in terms of population and ethnic orientation – had a fairly higher number of representatives in the study. Randomization was achieved whereby, during the pilot study, the researcher was able to identify knowledgeable individuals about the topic of study from each of the four Sub-districts; then from the identified population, sixty (60) informants were randomly selected from each stratum. A summary of the target population and sample size is presented in Table 1.

Table 1: Summary of the Target Population and Sample Size

TARGET POPULATION	SAMPLE SIZE	
	Sub-district	Stratum
	1. Buundoweyn	Women (2)
		Youth (2)
		Scholars (2)
		Clan elders/religious leaders (5)
		Local administration (3)
		NGOs (1)
	Sub-total:	15
	2. Howlwadaag	Women (2)
		Youth (2)
		Scholars (2)
		Clan elders/religious leaders (4)
		Local administration (3)
		NGOs (2)
	Sub-total:	15
	3. Kooshin	Women (2)
		Youth (1)
		Scholars (3)
		Clan elders/religious leaders (4)
		Local administration (2)
		NGOs (3)
	Sub-total:	15
	4. Xaawotaako	Women (1)
		Youth (2)
		Scholars (3)
		Clan elders/religious leaders (4)
		Local administration (4)
		NGOs (1)
	Sub-total:	15
Total = 43, 304	Total	60

3.5 RESPONSE RATE

The study issued 60 key informant questionnaires (KIQs) to the informants from each of the four sub-districts. Out of the 60 KIQs, 53 of them were duly responded to and returned. Thus, from the entire District of Beledweyne, the response rate for each group of informants is as follows: women (7), youth (6), scholars (10), clan elders/religious leaders (15), local administration (9) and NGOs (6). This information is captured in Table 2.

Table 2: Response Rate for the Entire District

Target Population	Group (Strata)	Response Rate
	Women	7
	Youth	6
	Scholars	10
	Clan elders/religious leaders	15
	Local administration	9
	NGOs	6
Total = 43, 304	60	53

This made a response rate of 88.3%. Mugenda and Mugenda (2003) hold that the response rate of 60% and above is acceptable for analysis; the authors also maintain that the larger the response rate, the smaller the non-response error. Therefore, at 88.3%, the response rate was considered excellent for analysis of data.

3.6 METHODS AND INSTRUMENTS OF DATA COLLECTION

Every research work has a framework for collecting data. Its function is to ensure that the required data are collected accurately and economically. The source of data that was used in this study is the primary source through the use of key informant questionnaires. According to Kothari (2008), using key informant questionnaires is useful in research, since they allow for large amount of data to be collected within a shorter time, they cover a wider geographical area, they are straightforward and are less time-consuming. Key informant questionnaires were designed to include open-ended (standardized) and closed-ended questions, although with a bias for closed-ended questions. The use of standardized questions helps to determine the reliability of issues under study, as well as it helps to realize more precise and accurate responses (Owens, 2002). The inclusion of open-ended questions was meant to give room for any further elaboration or clarification from the informants, as well as for the introduction of any issues that the informants considered to be significant insofar as the study topic is concerned.

3.7 DATA ANALYSIS

The data that was collected from field work was subjected to both qualitative and quantitative analyses. Miles and Huberman (1994) suggest that linking qualitative and quantitative data analyses strengthens the overall research design and in interpretation of the findings. In addition, combining both qualitative and quantitative approaches helps to ensure that any bias inherent in particular data sources and methods would be neutralized when used in conjunction with other data sources and methods, hence, making one's research more objective (Creswell, 2004). Quantitative data was analyzed using the statistical package for social science (SPSS), and findings were presented using frequency distribution tables, bar graphs and pie charts. Qualitative data was analyzed by coding common themes and presenting the findings in form of generalized statements in narration form, whereby those responses that carried the greatest weight regarding the issues under study were reflected. The systematic analysis and presentation of the information was aimed at making useful conclusions and recommendations about the research

3.8 VALIDITY AND RELIABILITY

Validity refers to the accuracy and meaningfulness of inferences, which are based on the research results. Hence, validity is the degree to which results obtained from the analysis of the data actually represent the variables under study (Mugenda and Mugenda, 2003; Kothari, 2008). On the other hand, reliability is the ability of a research instrument to consistently measure characteristics of interest over time. Hence, reliability refers to the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). Validity of the research instruments was achieved by carrying out a pilot study with a selected number of informants in Beledweyne district in Somalia. Reliability, on the other hand, was achieved by rehearsing the research instruments with the research assistants to make sure that they fully understood them. The researcher was also extra careful not to introduce any unintended questions later in the process of data collection which would have otherwise distorted the responses

3.9 ETHICAL CONSIDERATIONS

The goal of Ethics in research is to ensure that no one is harmed or suffers undesirable consequences as a result of the research activities (Mugenda and Mugenda, 2003). Given the often sensitive relationships between researcher and respondents, reasonable safeguards were built in this study, based on ethical considerations and requirements. For instance, consent was obtained from the informants through their management and local leadership before

administering key informant questionnaires. Anonymity and confidentiality of the informants was also ensured. In addition, the data that was collected was not manipulated by the researcher, and was used for academic purposes only.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 INTRODUCTION

The aim of this chapter was to analyze the data collected, present the findings - in terms of frequency distribution tables, pie charts and bar graphs - and provide an interpretation of the findings. To achieve this, a number of aspects of the study , especially those pertaining the research objectives and conceptual framework out of which the key informant questionnaire was derived , were analyzed and discussed in details herein.

4.2 GENERAL CHARACTERISTICS OF THE INFORMANTS

4.2.1 Gender of the informants

The gender of the informants was pre-determined by the researcher. Out of a total of 60 informants from the four sub-districts, 37 were male, representing a 61.7% of the total number of informants, and 23 were female, representing 38.3% of the informants. However, bearing in mind that it is 53 informants who returned the KIQs, 30 male informants returned the KIQs, representing 56.6% of the total number of KIQs returned, while 23 female informants returned the KIQs, representing 43.4% of the informants. The 23 female informants from all the four sub-districts in each category were as follows: women (7), youth (3), scholars (4), clan elders/religious leaders (2), local administration (3) and NGOs (4). The remaining number of informants (i.e., 30) was that of male informants.

4.2.2 Age category of the informants

The age of the informants among the four sub-districts ranged between 23years (for the youngest informant) and 66years (for the oldest informant). The age ranges per category or stratum of informants from all the four sub-districts are as follows:

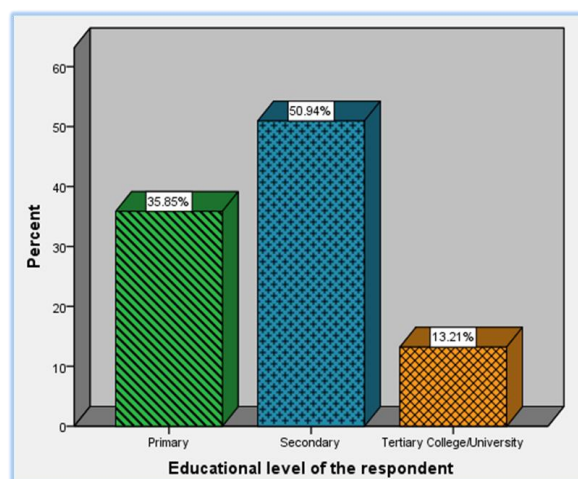
Table 3: Age Category of Informants

Stratum of Informants	Age
Women	25-59
Youth	23-33
Scholars	43-62
Clan elders/religious leaders	52-66
Local administrators	41-61
NGOs	29-58

4.2.3 Educational level of the informants

Majority of the informants (50.9%) among the four sub-districts had secondary level of education; 35.9% had attained primary level of education; while 13.2% had attained tertiary college or university level of education. The findings are summarized in Figure 2.

Figure 2: Educational Level of the Informants



4.2.4 Informants' Social Categories

Table 4 shows the groups (strata) that informants belonged to from the four sub-districts. From the table, most of the informants belong to the group of clan elders/religious leaders, who total to 15 informants, representing 28.3% of the total number of informants, while the youth had the least number of informants at six (6), representing 11.3% of the total number of informants.

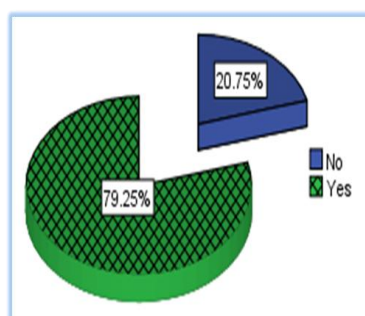
Table 4: Informants' Groups

Stratum (Group)	Number of Informants	Percentage (%)
Women	7	13.2
Youth	6	11.3
Scholars	10	18.9
Clan elders/religious leaders	15	28.3
Local administration	9	17
NGOs	6	11.3
Total	53	100

4.2.5 Residence of the informants

Most of the informants (79.3%) from the four sub-districts agreed that they are residents of Beledweyne District, while the remaining percentage (20.7%) said 'no,' meaning that they are people who have come from outside the district, but have lived within Hiiran region for long and therefore have good level of awareness of the natural resource-based conflict in the area. The findings are summarized in Figure 3.

Figure 3: Residence of the Informants



4.2.6 Duration of time lived in the town or district

From the findings presented in Table 5, majority of the informants (45.3%) or 24 informants among the four sub-districts said that they have lived in the town for more than 10 years; they therefore had witnessed first-hand accounts of natural resource-based conflict and hence, the information they provided could be relied upon. Only 3 informants (5.7%) said that they have lived in the district for less than one year.

Table 5: Duration of Time Lived in the Town or District

Duration	Frequency	Percent
Less than one year	3	5.7
Between 1-5 years	10	18.9
Between 5-10 years	16	30.2
More than 10 years	24	45.3
Total	53	100.0

4.2.7 Awareness of any conflicts related to natural resources

Insofar as this issue is concerned, 100% of the informants from the four Sub-districts said they had experienced conflict related to natural resources at a personal level. The informants were further asked to briefly describe one particular conflict they were aware of. Most of them said that they had witnessed first-hand conflicts related to natural resource use and accessibility, including: fighting among different clans due to scramble for water sources, grazing areas or pastures for animals and forests for charcoal burning – a practice which, though illegal, is still widely practiced in Somalia.

4.3.1 The Main Types in which Natural Resource-Based Conflict is Manifested at the Community and Family Levels:

Majority of the informants from the four sub-districts were of the opinion that natural resource-based conflict is mainly manifested through clan wars or conflicts. This accounted for 30.2% of the total number of informants. However, a few of the informants (13.2%)

were of the opinion that displacement of families is the main form in which such conflicts are manifested. The findings are presented in Table 6.

Table 6: Main types in which natural resource-based conflict is manifested at the community or clan and family levels

Manifestations of Natural Resource-based Conflict	Frequency	Percent
Clan wars/conflicts	16	30.2
Destruction of property	8	15.1
Raiding of livestock/farm produce	13	24.5
Displacement of families	7	13.2
Loss of lives (deaths)	9	17.0
Total	53	100.0

According to most of the informants, many conflicts take place either within members of the same community (clan), or among members of two or more different clans. The informants said that when conflicts take place among members of different clans, they are normally brutal and deadly, where human and animal lives are lost. This is because when such conflicts occur, they are normally of a retaliatory nature, where one clan wants to seek revenge on the other clan for animals stolen or lives lost. These findings are in line with those of Gilligan and James (2001) who hold that conflicts can be categorized into two levels, i.e., micro-micro or micro-macro levels: micro-micro conflicts are those that occur within community groups, while micro-macro conflicts are those that occur between community groups and government, private or civil society organizations.

This findings also confirm the views of Cartwright and Jenneker (2005), who maintain that micro-micro conflicts can be further categorized as taking place either within the group directly involved in resource management regime (i.e., intra micro-micro conflict) or between this group and those not directly involved (i.e., inter micro-micro conflict). Similarly, according to Cartwright and Jenneker (2005), intra micro-micro conflicts mainly include: disputes over land and resource ownership - for instance, between private and communal land owners; disputes over land boundaries between individuals or groups; latent family and relationship disputes; disputes due to natural resource projects being captured by elites and/or those who happen to own resources of a higher quality; breaking of operational rules - such

as protection agreements for grazing areas, fish net sizes, forests or misappropriation of funds; and disputes over the unfair distribution of work and profits.

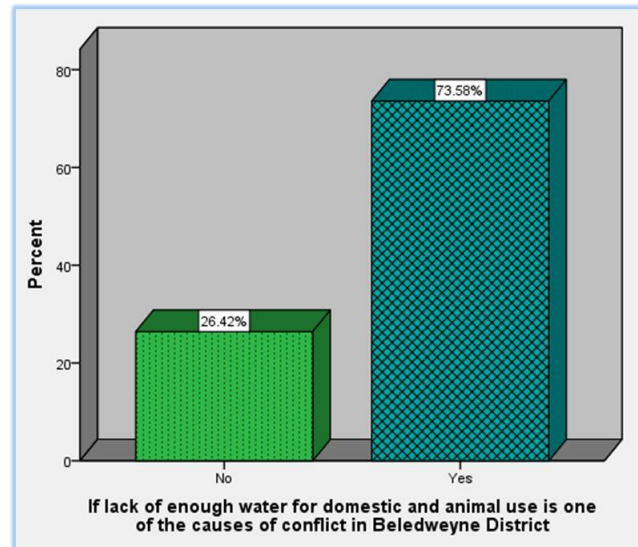
Cartwright and Jenneker (2005) further hold that the inter micro-micro conflicts take the main forms: conflict between land owners and resource users; conflict between indigenous groups and more recent settlers; disputes generated by jealousy related to growing wealth disparities; lack of co-operation between different communities and groups; disputes over renewal arrangements for leased land; internal land ownership disputes ignited by the speculation activities of commercial companies; and resentment built up due to lack of representation on village committees. Besides clan wars/conflicts, destruction of property, raiding of livestock/farm produce, displacement of families and loss of lives (deaths), most of the informants from Beledweyne District mentioned mental or psychological trauma, the urge to fight, paranoia and extreme forms of anger, among other emotions, as being other forms in which natural resource-based conflict was manifested among various community/clan and family members within the region.

4.3.2 Common Triggers of Natural Resource-Based Conflict:

4.3.2.1 Water scarcity as a trigger of conflict

Most of the informants from the four sub-districts said that lack of enough water for domestic and animal use is indeed one of the main causes of conflict in Beledweyne District. This represented 73.6% of the total number of informants. Only 26.42% of the respondents said otherwise. Those who agreed that water scarcity is indeed a cause of conflict in Beledweyne District said that this is the case, because they had witnessed first-hand accounts of conflicts and fights caused as a result of scarcity of water. In fact, some of these informants even bore scars and marks sustained from prolonged fighting as a result of scramble for water. Those who said that water was not a cause of conflict as such maintained that lack of enough water was a symptom of other root causes – such as unregulated cutting down of trees.

Figure 4: Water scarcity as a trigger of conflict

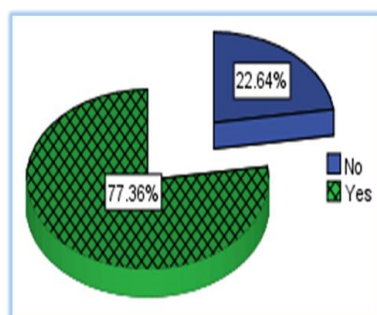


These findings are in line with the opinion by Gilligan and James (2001) and Cartwright and Jenneke (2005) who hold that micro-macro conflicts are normally caused when members of different communities hold contradictory natural resource needs and values – such as those occurring between wildlife habitat protection and local livelihood security; cultural conflicts between community groups and outsiders; disputes over project management between community groups and outside project-sponsors; disputes caused by political influence (at national, provincial or local levels); disputes arising from differences between the aspirations of community groups and expectations of NGOs or commercial companies; and off-site environmental impacts affecting unintended third-parties.

4.3.2.2 Competition over land for farming and grazing as a trigger of conflict

From the findings, 77.4% of the informants among the four sub-districts agreed that competition over land was indeed a key cause of conflict in the district. Only 22.6% said it was not.

Figure 5: Competition over land for farming and grazing as a trigger of conflict

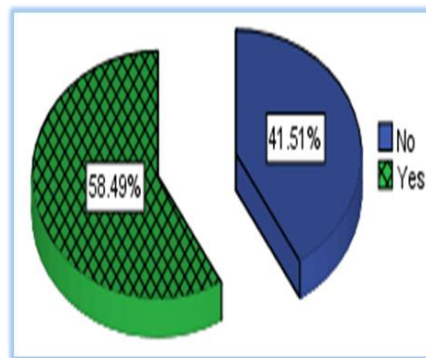


In addition, those who agreed that lack of land was a main cause of conflict in the area maintained that as a result of struggle for land for farming and grazing, farmers and pastoralists had ended up even killing each other, and that this has been a big problem for a long period of time now. Consequently, some farmers have decided to relocate to other places with time in search of better farming land. The same fate befell the pastoralists who had to move from place to place in search of better grazing areas.

4.3.2.3 Deforestation or cutting down of trees as a trigger of conflict

On this issue, 58.5% of the total number of informants from the four sub-districts agreed that deforestation is indeed a cause of conflict in Beledweyne District, while 41.5% were of a contrary opinion.

Figure 6: Deforestation as a trigger of conflict



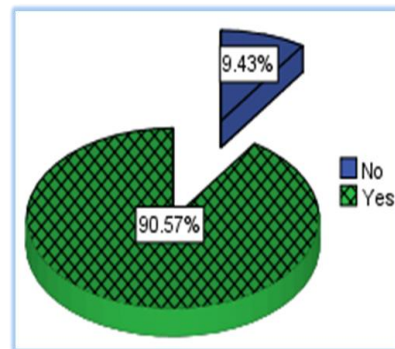
Those informants who agreed that deforestation is a cause of conflict in the district observed that even though charcoal burning in Somalia is illegal or is prohibited under the national law, the business is still booming due to corruption and lack of better or more sustainable sources of fuel for many people, especially those in rural areas. Hence, they were for the opinion that both the federal and state governments need to do more in providing alternatives that are more environmental friendly – such as solar energy and biogas. They said that this is one of the best and perhaps the only way of ending this practice. On the other hand, those who did not agree that cutting down of trees is a cause of conflict were mostly those who were involved in the illegal trade. Some of them were also those who feared retaliatory consequences, especially from the terror group al-Shabaab, who are said to be the biggest beneficiaries of the illegal trade.

4.3.2.4 Exploitation of rivers and other water sources as a trigger of conflict

Most of the informants from the four Sub-districts agreed as a result of exploitation and over-use of rivers and other water bodies, natural resource-based conflicts have become rampant in Beledweyne District. This represented (90.6%) of the total response. Only 9.4% of the

informants did not agree since they felt that there are enough water bodies and sources within the region to meet domestic and animal needs. The findings are illustrated in Figure 7.

Figure 7: Exploitation of rivers and other water sources as a trigger of conflict



All those who agreed or who said ‘yes’ said that rivers and other water bodies were being exploited mainly for the mining of sand, trees for charcoal burning and occasional fishing; and since no proper policies or control measures existed concerning the use of such resources, some water catchment areas had dried up, and this made the issue of scarcity of water for domestic and animal use even worse. Consequently, constant conflicts among the clans affected have been unavoidable.

4.3.2.5 Other factors that cause conflicts

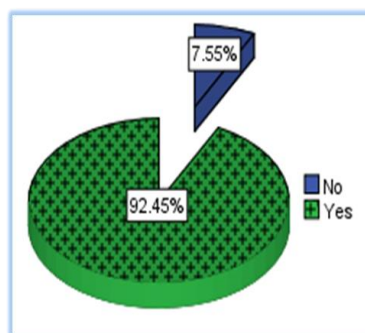
Besides competition over natural resources, terrorism, bad politics at the national level, weak governance structures and power struggles among the top leadership were mentioned by a good number of informants from the four sub-districts. Other factors mentioned include: cultural practices (such as livestock raiding and looting of farm produce) and perceived inequalities - in terms of sharing of common opportunities and resources - at the national level. The informants therefore advocated that there is need for those in and with power (both political and financial) to exercise judicious use their power for the common good. Table 7 shows the frequencies insofar the issues of the common triggers or cause of conflict is concerned. From the table, the frequency number is higher than the number of informants because some informants made more than one choice concerning the five issues under study.

Table 7: Responses on Common Triggers of Natural Resource-based Conflicts

Triggers of natural Resource-based Conflict	Frequency	Percent
Water scarcity as a trigger of conflict	23	31.5
Competition over land for farming and grazing as a cause of conflict	13	17.8
Deforestation or cutting down of trees as a trigger of conflict	11	15.1
Exploitation of rivers and other water bodies as a cause of conflict	17	23.3
Other factors that cause conflicts (e.g., perceived inequalities and livestock raiding)	9	12.3
Total	73	100.0

4.4.1 Effects of Natural Resource-Based Conflict on the Community or Family Members:

From Figure 8, majority (92.5%) of the informants said that indeed natural resource-based conflict has effects on the community or family members, while only 7.5% were of the opinion that it does not have any effects as such.

Figure 8: Effects of natural resource-based conflict on the community/family members

In line with this issue, majority of the informants - especially the women, scholars, local administrators and NGOs - were of the opinion that the effects caused as a result of natural resources were mostly negative. This is because according to these groups, natural resource-based conflict brings about loss of lives, loss of livelihoods, loss of animals, displacement of people or even entire communities, and mortal injuries on the survivors. In particular, most of the women said that when conflicts related to natural resources occur, the children, elderly and their fellow women suffer most since they are more vulnerable to attacks, sexual violence (e.g., rape) and malnutrition. This findings are in line with FAO (2002), which teaches that

over-exploitation or abuse of natural resources can lead to serious environmental changes and implications - such as loss of human and animal lives; land and water degradation; increased levels of pollution; illegal exploitation of forests, wildlife and aquatic resources; deforestation and poor drainage; climatic change; and displacement of peoples and communities.

The findings also concur with the views of Bingham (2006) who maintains that the ever-increasing demand for accessibility and use of natural resources can have multiple social and economic effects on communities, which will in turn affect population growth, changing consumption patterns, trade liberalization, rural enterprise development, and changes in technology and land use. For Bingham (2006), natural resource scarcity normally results from the unequal distribution of resources among individuals and social groups, or out of ambiguities in the definition of rights to common property resources. Consequently, the effects of environmental scarcity - such as constrained economic production, migration, social segmentation and disrupted institutions - can either singly or in combination produce or exacerbate conflict among groups.

In addition, Moore (2006) observes that natural resource-based conflicts have more devastating effects at community and family levels than even at national or international levels: this is because according to Moore (2006), any environmental degradation practices affect communities or families first, and in a more direct manner. He also observes that it takes time to mobilize and distribute critical help needed to deal with effects of natural resource-based conflicts down at the family level.

However, in line with the issue of whether natural resource-based conflicts have positive or negative effects on communities and families, a small number of the informants said that natural resource-based conflict has had 'positive' effects in the lives of the residents of Beledweyne district. According to them, this is because such conflicts have led to the following: an awakening the need for peace and more sustainable peace efforts among the masses who have witnessed long periods of conflicts; the existence of donor funding and other forms of donor aid; and the constant search for better opportunities due to displacement, including even outside Somalia, hence enriching the country in terms of divergence of ideas when the displaced masses return back home. Table 8 illustrates the frequency and frequency percentages of the informants insofar as the issue of the effects of natural resource-based conflict is concerned. From the table, the frequency number is higher than the number of

informants because some informants made more than one choice concerning the issues under study.

Table 8: Responses on Effects of Natural Resource-based Conflicts

Effects of Natural Resource-based Conflicts	Frequency	Percent
Loss of human live	49	29.7
Loss of livelihoods	43	26.1
Loss of animal live	23	13.9
Displacement of peoples and communities	37	22.4
Mortal injuries on the survivors	13	7.9
Total	165	100.0

4.5.1 Conflict Resolution Mechanisms at Community Level to Address Natural Resource-Based Conflict:

Insofar as this aspect is concerned, majority (49.1%) of the informants from the four sub-districts said that they were aware of some mechanisms of resolving natural resource-based conflict. However, 30.2% of them said there were no such mechanisms in place, whereas 20.7% maintained that if such mechanisms existed at all, then they did not know of any.

Figure 9: Conflict resolution mechanisms at community level to address natural resource-based conflict



Most of those who said that they are aware of the existence of some natural resource-based conflict resolution mechanisms mentioned customary law (as exercised by the clan elders and religious leaders), third-party mediation efforts, arbitration (through the courts) and other parties (such as NGOs, CBOs and religious groups) as some of the main mechanisms used in resolving natural resource-based conflict at community (clan) level. These findings are in line with the view held by Bouta and Nimer (2005) that apart from having local councils and

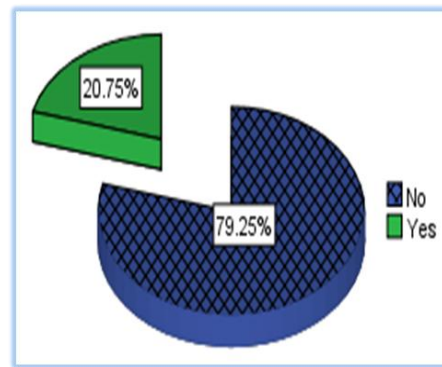
committees, non-governmental organizations (i.e., NGOs, CBOs and faith-based actors) have provided financial, psychological, emotional and spiritual support to war affected communities, and promoted reconciliation and re-integration. Thus, the non-state initiatives and institutions have formed the foundation upon which the local conflicts have been addressed especially by local governments and communities. UNESCO (2009) also retaliates that the civil society organizations have also been in the fore front in promoting reconciliations and dialogue among warring communities; they have also provided early warning to relevant authorities before outbreak of conflict. Table 9 shows the frequencies and cumulative frequencies of responses concerning the existence of conflict resolution mechanisms at community level to address natural resource-based conflict. From the table, the frequency number is higher than the number of informants because some informants made more than one choice concerning the issues under study.

Table 9: Responses on Existence of Conflict Resolution Mechanisms for Resolving Natural Resource-based Conflict at Community Level

Conflict Resolution Mechanisms	Frequency	Percent
(a) Customary law	51	29.5
(b) Arbitration	19	11.0
(c) Third-party mediation	47	27.2
(d) Others (e.g., NGOs, CBOs, Religious groups and Civil society)	37	21.4
(e) Not sure	19	11.0
Total	173	100.0

Also majority (79.3%) of the informants from the district said that the mechanisms currently being used to resolve natural resource-based conflict have not been effective enough, while the remaining number (20.7%) said that such mechanisms have been effective in their opinion.

Figure 10: Effectiveness of conflict resolution mechanisms used



Those who said that the mechanisms being used currently to resolve natural resource-based conflicts have not been effective maintained that this is the case since most of the implementers of these mechanisms are highly biased and, therefore, these mechanisms only exist to serve the interests of a few within the clan or the community; and in their opinion, that was perhaps the main reason why fighting and other forms of conflicts are still rampant in the district. These findings are in line with USAID (2009), which maintains that a problem in many countries in using formal conflict resolution mechanisms for natural resource-based conflicts (such as courts) is that such mechanisms are mostly weak or non-existent. In addition, many formal court systems are severely overburdened, with insufficient capacity in terms of personnel and expertise to handle a huge number of cases that come before them (Paul, 2000). Similarly, due to bureaucratic hassles inherent in the Somalia judicial system, just like in many other African judicial systems, it is often difficult to resolve such land disputes quickly. Consequently, land cases can languish in courts for many years; also the fact that property documents are easily forged and corruption is rampant in the system poses another challenge to the judiciary (APD, 2006). Furthermore, for many ordinary people, the courts appear expensive, time-consuming, unpredictable and, even corrupt in themselves; the language of lawyers and judge also appears alien and complex (Ayling and Kelly, 2007).

4.6.1 Role Played by Different Groups in either Fueling or Resolving Natural Resource-Based Conflict:

Insofar as this issue is concerned, majority of the informants from all sub-districts were of the opinion that most youth have played a fuelling role to the current conflict since they are the ones who are normally used to fight or cause chaos. However, some informants were more sympathetic of the women's role in conflict resolution: they said that of late, more women are coming to the fore in discouraging conflict, and in taking an active role in mediation and

peace building initiatives. Insofar as clan elders/religious leaders are concerned, majority of the informants said that currently, a good number of these leaders are getting actively involved in trying to resolve the conflict through the use of mediation and arbitration efforts.

Concerning the group of local administrators, majority of the respondents were of the view that the current local administration (including government officials and politicians) has played a double role – i.e., both a resolution and a fuelling role, depending on the prevailing circumstances or the interests at stake. Here, the respondents therefore felt that the local administrators bear the greatest responsibility in resolving natural resource-based conflict, since they have the power to make this happen. In the case of the NGOs, most respondents were of the opinion that NGOs and other community-based organizations (CBOs) have mostly played a resolution role by trying to offer material aid and psychological help to those who have been affected most by the conflict. Furthermore, some respondents also noted that some NGOs and CBOs have been actively involved in trying to find sustainable peace to the conflict in the region for a long time now, and that the efforts of these institutions are starting to bear fruit.

4.7.1 The Effect or Role of Other Factors

On this aspect, the study sought to find out to what extent the respondents agreed or disagreed with the various causes of conflict, besides the natural resource-based causes. The findings are summarized and presented in Table 10.

Table 10: The effect of other factors

Moderating Factors	Very Low Extent	Low Extent	Neutral	Large Extent	Very Large Extent
(a) Prolonged drought has been one of the causes of resource-based conflicts in Beledweyne District and the region	11.3%	7.3%	12.9%	43.5%	25.0%
(b) The current macro or national economic status has been one of the causes of conflicts in Beledweyne District and the region	0.8%	8.1%	31.5%	36.3%	23.4%

From the table, majority of the informants from the four sub-districts agreed that prolonged drought has been one of the big causes of resource-based conflicts in Beledweyne District to a large extent. This accounted for 43.5% of the total number of informants who contributed on this issue. 7.3% of the informants said that prolonged drought was a cause of the conflict in the region, but to a low extent. On the issue of macro or national economy is concerned, 36.3% said that to a large extent, this has indeed been one of the causes of conflicts in the district, while only 0.8% agreed on the same but to a very low extent.

4.8.1 Suggestions, Comments or Recommendations

A good number of the respondents expressed a strong opinion that there is need to find a lasting solution for the conflict in Somalia after more than 20 years of war. Majority suggested that there is need for all key stakeholders (such as the national or federal government, state governments, political class, business people, academicians, community leaders and the international community) to come together and charter the peace process for Somalia as one group. They also said that whatever solution that needs to be reached at to achieve lasting peace must be for the good of the people of Somalia, but not for a few individuals; and in achieving this peace, most of the respondents said that tackling the issue of uneven sharing of natural resources and discrimination in terms of access to national opportunities (such as government jobs and education) should be fully addressed, and that tangible solutions that are palatable to majority of those involved should be provided and implemented.

CHAPTER FIVE: SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The main aim of this study was to investigate the forms of natural resource-based conflict and conflict resolution mechanisms, with Beledweyne District in the Hiiran Region of Somalia being used as the case for study. This chapter presents the summary of the research findings, conclusions and recommendations. The summary of the findings and the conclusions drawn out of these findings are organized around the main objectives of the study.

5.2 SUMMARY OF THE FINDINGS

In the first objective of the study, the study sought to find out the main forms or types into which natural resource-based conflict was manifested at the community or clan and family levels in Beledweyne District. From the findings presented in Table 6, the study revealed that natural resource-based conflict was mainly manifested in terms of clan wars or conflicts, destruction of property, raiding of livestock and/or farm produce, displacement of families, and loss of human lives. Furthermore, the findings revealed that natural resource-based conflict was mainly manifested in the form of mental or psychological trauma, the urge to fight, paranoia, and extreme forms of anger and other forms of emotions among various community members in the district.

In relation to the second objective of the study, the findings revealed that lack of enough water for domestic and animal use was one of the main causes of conflict in Beledweyne District as illustrated in Figures 4 to 7. The respondents further explained that they had witnessed first-hand accounts of conflicts and fights caused as a result of scarcity of water. In fact, some respondents even bore scars and marks sustained from prolonged fighting due to lack of water and other related natural resources. Other common triggers of conflict mentioned include competition over land for farming and grazing. In line with the same, the respondents said that as a result of struggle for land for farming and grazing, farmers and pastoralists had ended up killing each other, and that this has been a big problem for a long period of time now. This has even made some farmers to relocate to other places with time in search of better farming land. The same fate has also befallen the pastoralists who have been forced to move from place to place in search of better grazing areas. The respondents further explained that, cattle raiding and rustling has become a culturally-accepted phenomenon,

especially among pastoralists, due to its rampant nature. In the raiding process, both the lives of the raiders and animals are sometimes lost. To make matters even worse, the growing appetite for meat domestically and in the region, as well as the use of more sophisticated weapons during the raids (e.g., guns and grenades), have exacerbated the loss of human lives. Cutting down of forests/trees (deforestation) for charcoal and commercial use was also said to be a key cause of conflict in Beledweyne District. This is the case despite the fact that charcoal burning in Somalia is illegal.

Insofar as the third objective of the study is concerned, the findings of the study revealed that natural resource-based conflict had mostly negative effects on the community and family members living in Beledweyne District. This is illustrated in Figure 8. Some of the negative effects mentioned include: loss of lives, loss of livelihoods, loss of animals and displacement of people or entire communities. However, a small number of the respondents said that despite its many negative effects, natural resource-based conflict has also had some positive effects in their lives including: awakening the need for peace and more sustainable peace efforts among the masses who have witnessed long periods of conflicts, the existence of donor funding and other forms of donor aid and the constant search for better opportunities due to displacement, which has led to enriching the country in terms of divergence of ideas when the displaced masses return back home.

Concerning the fourth objective of the study, the study findings revealed that some conflict resolution mechanisms do exist with the aim of trying to addressing natural resource-based conflict among the affected communities in Beledweyne District. Some of the mechanisms that were mentioned include customary law (as exercised by the clan elders) and third-party mediation efforts. However, most respondents argued that most of these mechanisms have not been effective enough, to a large extent, since most of them are biased and therefore exist to serve the interests of a few within the clan or the community. This is shown in Figure 10.

5.3 CONCLUSIONS OF THE STUDY

In the first objective of the study, the researcher sought to find out the main types into which natural resource-based conflict was manifested at the community or clan and family levels in Beledweyne District. From the findings, the study revealed that conflict was manifested mainly in terms of clan wars or conflicts, destruction of property, raiding of livestock and farm produce, displacement of families, loss of lives, mental or psychological trauma, the urge to fight, paranoia, and extreme forms of anger and other emotions among various

community members. We can therefore conclude that natural resource-based conflict indeed exists in Somalia, and that this conflict is manifested in different forms.

Insofar as the second objective is concerned, the study sought to investigate what the common triggers of natural resource-based conflict are. The study found out that lack of enough water for domestic and animal use, scramble for fuel (leading to unchecked cutting down of trees), lack of adequate land for farming and grazing, and encroachment of rivers and other water bodies were said to be some of the main causes of conflict in Beledweyne District. Based on these findings, we can therefore conclude that natural resource-based conflict exists, and that it is real, in Somalia.

In the third objective, the study sought to explore the effects of natural resource-based conflict at community and family levels in Somalia. From the findings, most respondents said that natural resource-based conflict had mainly negative effects on the community and family members living in Beledweyne District, which include loss of lives, loss of livelihoods, loss of animals and even displacement of people or entire communities. Hence, we can conclude that this is an issue of great concern that should be urgently addressed by all concerned parties.

Concerning the fourth objective, the study sought to ascertain the mechanisms being used to resolve natural resource-based conflict in Somalia. The study found out that indeed conflict resolution mechanisms do exist - mainly consisting of customary laws and third-party mediation efforts - though these mechanisms have not been effective enough to a large extent due to vested interests. Thus, based on these findings, we can conclude that there is some form of effort put forward to try and address or resolve natural resource-based conflict, though more needs to be done on this aspect.

The study findings are also in line with the Theory of Access by Ribot and Peluso (2003), which stipulates that people's access to and use of certain critical resources – such as water, land, minerals and the legal system – depend mainly on their socio-economic and political power. Thus, in every system or society, there will be a group of those who will have more control, and access to and use of given limited (but critical) resources, mainly due to their political and economic influence, while there will also be those who will be 'alienated' and 'cut-off' from access and use of such resources due to their lack of influential power, hence,

rendering them landless or squatters. This theory therefore helps us to understand why some individuals, groups of people, communities or institutions benefit more from resources, whether or not they have rights to them, while others do not. This is true of Beledweyne District, where those people who are socio-politically connected or those have financial power have better access to the use of natural resources – such as land, forests and water resources – while those without such ‘power’ continue to remain poor. This, according to most informants from the four sub-districts, has been one of the main causes of conflicts in Beledweyne district, and in the entire south-eastern region of Hiiran.

5.4 RECOMMENDATIONS OF THE STUDY

This study would like to recommend the following:

- i. That there is need for all key stakeholders - such as the national (federal) government, state governments, political class, business people, academicians, community leaders and the international community - to come together and charter the peace process for Somalia as one group, particularly insofar as the natural resource-based conflict is concerned.
- ii. That there is need for all those who are concerned to give viable alternative solutions to the affected populations of natural resource-based conflict. For instance, the federal government of Somalia, together with the state governments and other stakeholders, can come up with programmes that encourage modern forms of farming and proper utilization of the available land, such as zero grazing, crop rotation, mixed farming and irrigation of semi-arid lands as alternatives to pastoralism and monoculture farming. Also sustainable solutions should be provided to the perennial problem of deforestation and encroachment of water bodies, including encouraging use of bio-gas for cooking, providing water storage tanks and implementing punitive measures on charcoal burning trade.
- iii. That all solutions to be reached at in achieving lasting peace must be for the good of all the people of Somalia, and not for a few individuals. Also, in achieving sustainable peace, the study recommends that it is crucial for those in power and influential positions in government to tackle the issue of inequitable sharing of natural resources and discrimination in terms of access to national opportunities (such as government jobs and education). This will lead to a ‘win-win’ situation for all the parties involved in the conflict.

- iv. Lastly, this study recommends that it is imperative for all different groups to be actively involved in peace brokering so that the peace implementation process is more agreeable, effective and sustainable.

5.5 SUGGESTIONS FOR FURTHER STUDIES

The current study focused on the forms of natural resource-based conflict and conflict resolution mechanisms. Beledweyne District in Hiiran Region of Somalia was used as the case for the study. Future studies can be carried out in different geographical locations within or even outside Somalia. It is also important for future researchers to consider studying on other causes of conflict, besides natural resources, and their possible solutions.

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APPENDICES

APPENDIX I: INTRODUCTORY LETTER

University of Nairobi,
P.O. Box 342 - 01000,
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Telephone: +254 20 2088310
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Yousuf Sheikh Mohammed,
Cell phone: +254724 238047
Email: yousufsaliim@hotmail.com

Dear Respondent,

This questionnaire is aimed at collecting data for research purposes on “FORMS OF NATURAL RESOURCE-BASED CONFLICT AND CONFLICT RESOLUTION MECHANISMS: A CASE OF BLADWEYNE DISTRICT - HIIRAN REGION, SOMALIA.”

The research will be in partial fulfillment of the requirements for the award of the Degree of Master of Arts in Disaster Management of the University of Nairobi. Please note that any information collected from this questionnaire will be treated with utmost confidentiality and will be used for academic purposes only. Your co-operation in this exercise will be highly appreciated.

Thanks in advance.

Yours sincerely,

Yousuf Sheikh Mohammed.

APPENDIX II: THE MAP OF SOMALIA

(Showing the Position of Beledweyne District)



(Source: <http://www.mapsofworld.com/somalia/>)

APPENDIX III: QUESTIONNAIRE

My name is Yousuf Sheikh Mohammed. I am carrying out a study on ‘Forms of Natural Resource-based Conflict and Conflict Resolution.’

Kindly answer the following questions by ticking the appropriate response in one of the boxes provided. Please, be as honest as possible.

Section I: General Characteristics of the Informants:

1. (a) Gender of the respondent?

- i. Male []
- ii. Female []

(b) What is your age? (Please state)

.....
.....

(c) Educational level of the respondent?

- i. Primary []
- ii. Secondary []
- iii. Tertiary College or University []
- iv. Others []

(d) Which one of the following groups do you belong to?

- i. Women []
- ii. Youth []
- iii. Scholars []
- iv. Clan elders/religious leaders []
- v. Local administrators []
- vi. NGOs []

3. (a) Are you a resident of Beledweyne District?

- i. Yes []
- ii. No []

(b) For how long have you lived in this town/ district?

- i. Less than one year []
- ii. Between 1-5 years []
- iii. Between 5-10 years []
- iv. More than 10 years []

4. (a) Are you aware of any conflicts related to natural resources (such as competition over water, forests, land, pasture and rivers, etc) in Beledweyne District?

i. Yes []

ii. No []

(b) If 'Yes,' please briefly describe one particular conflict that you are aware of

.....
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Section II: Questions On Aspects of Natural Resource-based Conflict and Conflict Resolution:

5. (a) Based on your own awareness and experience, what is the main form in which natural resource-based conflict is manifested at the community or clan and family levels in Beledweyne District? (Please tick only one choice)

i. Clan wars/ conflicts []

ii. Destruction of property []

iii. Raiding of livestock or farm produce []

iv. Displacement of families []

v. Loss of lives (deaths) []

(b) Besides the above forms, how else is natural resource-based conflict in Beledweyne District manifested?

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6. (a) Do you think lack of enough water for domestic and animal use is one of the causes of conflict in Beledweyne District?

i. Yes []

ii. No []

(b) Please, briefly explain your answer in 5(a) above

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7. (a) In your view, does competition over land for farming and grazing cause conflict in Beledweyne District?

i. Yes []

ii. No []

(b) Briefly explain your answer in 6(a) above

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8. (a) In your opinion, does deforestation (cutting down of trees) cause conflict in Beledweyne District?

i. Yes []

ii. No []

(b) Please explain your answer in 8(a) above briefly

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9. (a) In your opinion, do you think exploitation of rivers and other water sources is a cause of conflict in Beledweyne District?

i. Yes []

ii. No []

(b) Explain your answer in 10(a) above

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(c) Besides lack of enough water, competition over land for farming and grazing, livestock raiding, looting of farm produce, cutting down of forests, and competition for rivers and other water bodies, name any other factors that cause conflicts in Beledweyne District, if any?

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10. (a) Does natural resource-based conflict have any effects on the community or family members living in Beledweyne District?

- i. Yes []
- ii. No []

(b) Are the effects positive, negative or both on those that are affected?

- i. Positive []
- ii. Negative []
- iii. Both positive and negative []

(c) Please briefly explain your answer in 13(b) above

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11. (a) Are there any conflict resolution mechanisms in place to address natural resource-based conflict in your community that you are aware of?

- i. Yes []
- ii. No []
- iii. I don't know []

(b) If 'Yes,' please list some of those mechanisms

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(c) In your opinion, do you think such mechanisms have been effective enough?

- i. Yes []
- ii. No []

(d) Please explain your answer in 14(c) above briefly

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12. Explain briefly the role played by each of the following groups in either fueling or resolving natural resource-based conflict in Beledweyne District

i. Women and youth

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ii. Community leaders/clan elders

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iii. Administrators

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iv. NGOs

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Section III: Questions on Other Factors:

13. To what extent do you agree or disagree with the following statements? (Please tick appropriately on the level of extent indicated in the table below):

(a) Prolonged drought has been one of the causes of resource-based conflicts in Beledweyne District

- i. Very large extent []
- ii. Large extent []
- iii. Neutral []
- iv. Low extent []
- v. Very low extent []

(b) The current macro or national economic status has been one of the causes of conflicts in Beledweyne District

- | | |
|----------------------------|--------------------------|
| i. Very large extent [] | iv. Low extent [] |
| ii. Large extent [] | v. Very low extent [] |
| iii. Neutral [] | |

14. Any suggestions, comments or recommendations about the topic of study that you would like to make?

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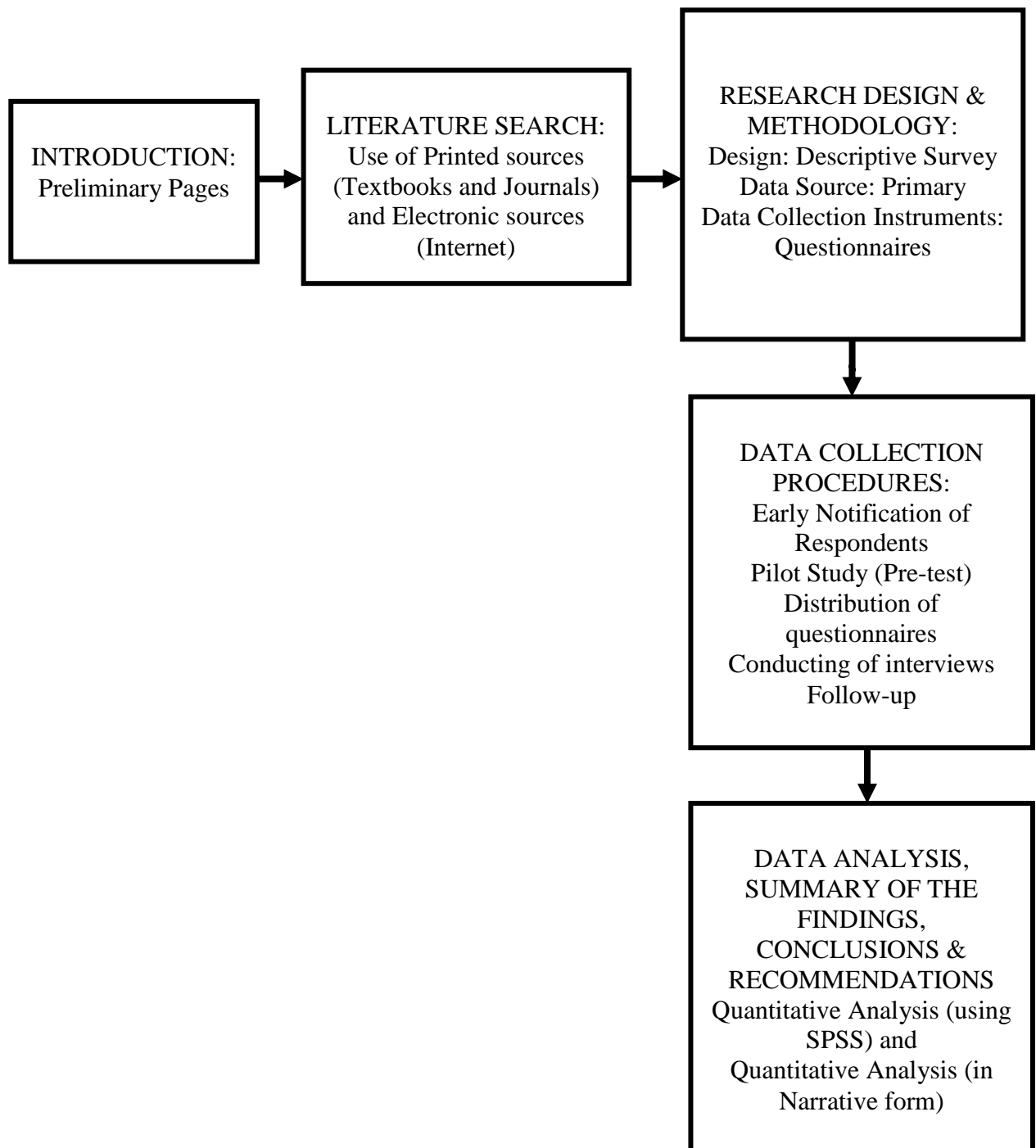
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APPENDIX IV: PROJECT WORK PLAN

Research Activity	December 2014 to February 2015	February 2015 to August 2015	August 2015 to October 2015	October 2015	October 2015	November 2015	November 2015	November 2015	November 2015	November 2015
1. Identification and allocation of supervisors										
2. Proposal development										
3. Presentation and correction of proposal										
4. Pre-testing of data collection instruments										
5. Data collection (Field work)										
6. Data organization, analysis and interpretation										
7. Typing of the draft thesis										
8. Presentation of findings										
9. Examination and correction of draft thesis										
10. Correction and submission of final research project										

APPENDIX V: PROJECT RESEARCH FLOW CHART



(Source: Researcher, 2015).

APPENDIX VI: RESEARCHER'S PROPOSED BUDGET

Activity	Time-frame	Amount (in Kshs)
1. Collection of Secondary Data (Literature Review)	Two months	8, 000 (mainly for internet, transport and food)
2. Collection of Primary Data (Field Work)	Two Weeks	75, 000 (mostly for travelling, food and payment of one research assistant)
3. Data Analysis, Interpretation and Presentation	One Week	-
Total Proposed Budget		Kshs. 83, 000

(Source: Researcher, 2015).