UNIVERSITY OF NAIROBI

DEPARTMENT OF POLITICAL SCIENCE, DIPLOMACY AND PUBLIC ADMINISTRATION

CLIMATE CHANGE AND VIOLENT CONFLICT: A CASE STUDY OF PUNTLAND STATE OF SOMALIA (2008-2020)
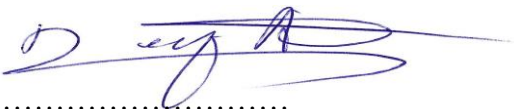
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DECLARATION

This research project is my original work and has not been presented for examination or degree award to any other institution or examination body.

Signature…………………………   Date: 18/10/2021

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This research project has been submitted for examination with my approval as the university supervisor.

Signature…………………………   Date: 18/10/2021

PROF. MUSAMBAYI KATUMANGA

DEDICATION

To my mother, Fadumo Abshir Aden, whose imagination and enormous sacrifice I was able to reach this far.

ACKNOWLEDGMENT

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ABBREVIATIONS AND ACRONYMS

AU	African Union
CNA	Centre for Naval Analysis
DES	Demographic and Environmental Stress
DoD	Department of Defense
FEWS NET	Famine Early Warning Systems Network
FMS	Federal Member State
FSNAU	Food Security and Nutrition Analysis Unit
GDP	Gross Domestic Product
HDI	Human Development Index
IDPs	Internally Displaced Persons
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
IS	Islamic State
ISIS	Islamic State in Syrian and the Levant
LCE	Loita Council of Elders
LDCs	Less Developed Countries
NGOs	Non-Governmental Organizations
PDRC	Puntland Development Research Center
RPF	Rwandan Patriotic Front
SNM	Somali National Movement
SRC	Supreme Revolutionary Council
SSDF	Somali Salvation Democratic Front
SYC	Somali Youth Club
SYL	Somali Youth League
UN	United Nations
USC	United Somali Congress
UNHCR	United Nations High Commission for Refugees
UNDP	United Nations Development Programme
US	United States
WSLF	Western Somali Liberation Front

ABSTRACT

This study examines the relationship between climate change and violent conflict in Puntland State of Somalia. Using qualitative research method, the study grapples with two core questions: What factors explain the nexus between climate change and violent conflict in Puntland state of Somalia? How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia? The study converges Homer-Dixon's environmental scarcity and violent conflict theory with elements of securitization theory to argue that an increase in population coupled with worsening livelihood conditions underpinned by a reduced resource pie, as well as intra-society and state-society distance decay resulting from state weakness and the proliferation of arms underpin the nexus between climate change and conflict. It equally notes that climate change weaknes the customary *Xeer* system that has always served as a fulcrum of stability. This, therefore, increases the historical conflicts among clans based on the competition for resources and land. Furthermore, the study finds that, climate change increases insecurity as clans compete for scarce resources. This in turn informs the securitization of the scarce resources by actors in an attempt to assure their survival. The study notes that, the use of traditional conflict resolution mechanisms at the onset of the conflict may prevent the intersection of the conflict with the existing politico-security dynamics in the region. This is particularly true as traditional institutions enjoy more conflict resolution skills as well as legitimacy than the state.

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

Climate change, the increase of global temperatures due to anthropogenic activities of greenhouse emission into the atmosphere, is now a ubiquitous concept dominating academia and policy circles, and probably the most significant challenge facing humanity in the twenty-first century (Zimmerer, 2014). The Intergovernmental Panel on Climate Change (IPCC) maintains that the trend of the change of climate is "unequivocal" and "unprecedented" (IPCC, 2014). Significantly, climate change is projected to increase temperatures and alter rainfall patterns thereby leading to scarcity of renewable resources such as fertile land, freshwater, fish and forests. As such, the scarcity of these resources may in turn engender competition, which may lead to violent conflict (Homer-Dixon, 1999).

Academic research on climate change and conflict sparked a fierce debate between scholars such that a call for a declaration of peace was made (Seter, 2016). In fact, the field is polarized into four schools of thought; neo-Malthusians, Cornucopians, Liberalists and Political Ecologists (Gleditsch & Theisen, 2010). The neo-Malthusian paradigm is predicated on the ideas of Thomas Malthus. Malthus argues that there is an inherent mismatch between human population growth and food production, where the former grows exponentially and the latter linearly. The foregoing mismatch is therefore ameliorated by positive natural checks including war, famine and diseases, which resuscitate the lost balance. Thus, human conflict is a given (Malthus, 1978). However, neo-Malthusian thought is critiqued that they anecdotally assume scarcity in and by itself leads to conflict overlooking the intervening variables including contextual factors and levels of development, which are important determinants of this link (Gleditsch & Theisen, 2010).

Conversely, Cornucopians stress that there is rarely absolute scarcity due to the existence of effective institutions, functioning markets guided by the mechanisms of demand and supply, and international trade. To this end, markets and institutions create incentives for conservation, substitution and new innovations to overcome scarcity (Koubi, 2019). At the heart of the Cornucopian argument is "human ingenuity." That is, humans are the "ultimate resource" and have unlimited capacity for technological innovation to ameliorate the scarcity of natural resources (Simon, 1996).

Liberalists, on the other hand, contend that the deciding factor that links climate change and conflict is regime type, that is, if the regime in power is either authoritarian or democratic. Liberalists argue that climate-induced conflict is likely in the former. This is underpinned by Democratic Peace Theory, which posits that democratic countries rarely fight each other (Gleditsch, 1998). According to liberalists, democracy affects the climate change-conflict nexus in two ways; democracies, firstly, tend to care more about the environment through resource conservation and this thus prevents scarcity. And, secondly, democracies have optimal institutional frameworks where those adversely affected by climate change can peacefully air their grievances rather than take arms. In other words, democratic countries have the capacity to solve climate-induced natural resource scarcities before turning into a conflict (Gleditsch & Theisen, 2010).

Finally, Political Ecologists contradict the mono-causal relationship between the change of climate and violent conflict promoted by the neo-Malthusian paradigm. Instead, they argue that the deciding factors that link climate change-induced scarcity of critical resources and conflict are intervening variables relating to issues of distribution, access and policy (Gleditsch & Theisen, 2010). Political Ecologists emphasize the important role played by political institutions in the climate change-conflict nexus. Important here is that "we live in a politicized environment." That is, it is the politics "relevancy" and "irrelevancy" that determines states' reaction to natural resource scarcities. As such, the poor and the marginalized tend to be neglected and bore the brunt of the adverse climate change effects and are susceptible to engage in violent conflict (Raleigh, 2012).

Africa is predicted to bore the brunt of violent conflicts underpinned by the change of climate. This is as a result of the continent's economic dependency on agricultural production, which is climate-sensitive. Indeed, agricultural production is reduced as climate change mediates increase in temperatures and alters rainfall patterns. As a result, this dwindles African states' revenue, which are highly dependent on the agricultural sector and in turn, their capacity to project authority. More significantly, the continent is characterized by poverty, ethnic animosities, high social inequality and weak state institutions, and, therefore, a changing climate will likely prove to be a "threat multiplier" accentuating the preceding deficiencies, which may mediate conflicts (Scheffran, Link, & Schilling, 2019)

Arguing from a neo-Malthusian perspective, Robert Kaplan sketches an apocalyptic prophecy in the southern world. In his article *The Coming Anarchy*, Kaplan argues that West

Africa is a paragon of the amalgamation of increased population and environmental degradation. For the combination of "surging population, spreading disease, deforestation and soil erosion, water depletion and possibly rising sea level… will prompt mass migration, and, in turn, incite conflict." Therefore, this makes the environment among the most paramount national security issues in this century (Kaplan, 1994). Implicit in Kaplan's argument is racist tendencies that the people in the south are "barbaric" and will compete violently in times of scarcity, while those in the north are "civilized" who will peacefully settle their disputes (Barnett, 2000, p. 274).

James Gasana holds the view that environment-related issues played a significant role in the 1994 Rwandan Genocide. In fact, Gasana argues that the interplay between population growth, natural resource scarcities and skewed land distribution led to the disenfranchisement of southern Tutsi peasantry. The preceding dynamics were exacerbated by the 1980s famine leading to social crisis. This reduced the legitimacy of the ruling regime as the Rwandan Patriotic Front (RPF) invaded the country. This amplified the existing ethnic cleavages in the country leading to genocide (Gasana, 2002). However, Percival & Homer-Dixon (1996) argue that the environment contributed almost no role in the Rwandan Genocide. Instead, regime insecurity underpinned by the Arusha Accords was key in the lead-up to the violence. The Hutu dominated regime opposed the multiparty system introduced by the accords as this will reverse their domination of state power. Thus, elites manipulated existing ethnic cleavages to perpetuate their hold onto power thereby leading to the genocide.

The Darfur conflict is argued to be the prime case of climate change-induced violent conflict. In line with this, Banki Moon argues that the conflict in Darfur is an "ecological crisis" caused by prolonged drought due to climate change. This therefore pitted farmers against pastoralists, after the former fenced their lands from the herds of the latter, leading to violent conflict (Moon, 2007). The foregoing argument is critiqued that it removes human agency from the equation, in turn, absolving leaders from their responsibility. In fact, the conflict traces back to the days of Ja'afar Numeiri from 1969 when the Khartoum regime prioritized mechanized rain-fed agriculture positioning Sudan as a breadbasket for the world. Concomitantly, this engendered structural scarcity where farmers and pastoralists in Darfur were displaced from their lands leading to the conflict (Verhoeven, 2011).

The risk posed by climate change to Somalia cannot be overestimated. This is because of its economic dependency on agriculture and its lack of infrastructure underpinned by decades

of state failure. Against this backdrop comes increased frequency of droughts as a result of the changing climate thus engendering water scarcity, which mediates competition among pastoralists likely leading to violent conflict. Simultaneously, migration of pastoralists due to droughts may cause conflict in receiving areas because of the latter facing their own water shortages (Sachs, 2008). The totality of all this may disrupt the existing social capital creating "a mutual state of suffering" which sets the pace for "survival of the fittest" game. Focusing at micro-level, Puntland State[1], this study tries to establish the factors that link climate change and violent conflict while appreciating contextual factors, in a trifurcated state where clans, localized regional-global networks and the state animate the conflict dynamics.

1.2   Statement of the Problem

It is contended that climate change-induced 1°C increase in temperature engenders a concomitant 4.5 percent and 0.9 percent increase in civil war in the year of the temperature increase and the subsequent year, respectively (Burke, Miguel, Satyanath, Dykema, & Lobell, 2009). In Puntland, two thirds of the total populace live in rural areas and their livelihoods mainly depend on climate-sensitive pastoralism (Maystadt & Ecker, 2014). At the same time, the frequency of drought occurrence has increased from one in every eight years, to one in every two or three years (Adano & Daudi, 2012). Affirming the assertion of the increased frequency of droughts, Said, Cetin, & Yurtal (2019) note that the region has experienced devastating droughts in the years 2008, 2011, 2016 and 2017 underpinned by the change of climate. In fact, the 2017 drought resulted in the displacement of 20,000 households (UNHCR, 2017).

Similarly, the region also experienced a shift from being a "bastion of stability within a troubled country" (Felbab-brown, 2017), to one facing heightened insecurities. Indeed, the region has seen an increase in the activities of armed militant groups such as Al-Shabaab and ISIS, both based in Galgala mountains in Bari region (Menkhaus, 2018). The latter, morphing from perceived clan marginalization against the state, in 2016 seized control of the strategic city of Qandala located along the Red sea (Crisis Group, 2016). Equally notable is Al-Shabaab's attack against a military base in Af Urur village killing 38 Puntland soldiers (Felbab-Brown, 2017). The foregoing dynamics affirm Eklöw & Krampe (2019) contention that the

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[1] It is to be noted that Puntland is a Federal Member State (FMS) of the Federal Republic of Somalia. It was created as an autonomous state in 1998 after the collapse of the Somali and Puntland see itself as part of Somalia

increase in organized crime in the region is underpinned by worsening livelihood conditions as a result of climate change-induced droughts. However, what they do not explain is what factors explain the apparent nexus between the change of climate and conflict in Puntland state.

Of interest is Puntland's centres of power and its hinterland. The former is characterized by state presence, albeit the state is predicated on "genealogical logic" (Hoehne, 2014). By inference, therefore, loyalty of those in government as well as the security establishment does not only reside with the state but also with their clans. Thus, this informs "a plurality of power centres" and also "clan-security-politics nexus" (Albrecht, 2018). In the latter, there is state absence hence anarchical nature where "self-help system" is the rule of the day. In fact, clans, militant groups and the state contest for power and authority in the hinterland. Therefore, this study is interested in understanding how climate change and the attendant scarcity of critical resources inform insecurity and how all this affects the nature of conflict dynamics in the region.

This study is intrigued by the foregoing dynamics. It specifically seeks to address the following questions: What factors explain the nexus between climate change and violent conflict in Puntland state of Somalia? How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia?

1.3   Research Questions

In general, this study seeks to appreciate the effect of climate change on violent conflict in Puntland State of Somalia. Specifically, the study tries to address the following questions:

I.   What factors explain the nexus between climate change and violent conflict in Puntland state of Somalia?

II.   How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia?

III.   How can climate change-induced violent conflicts be mitigated in Puntland State of Somalia?

1.4 Objectives of the Study

Specifically, the objectives of this study are:

   I.   To examine and analyze the factors that explain the nexus between climate change and violent conflict in Puntland State of Somalia;
  II.   To examine and analyze how climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia;
 III.   To proffer policy options geared towards mitigating climate change-induced violent conflicts in Puntland State of Somalia.

1.5 Justification of the Study

The study is justified on both academic and policy fronts. On the academic front, Weberisk (2008), Mystadt & Ecker (2014), and Eklöw & Krampe (2019) examine the nexus between climate change, resources and conflict in Somalia. These scholars assume a monocausal link between the foregoing variables and do not appreciate the mediating factors that translate this link thus obfuscating the role of human agency and contextual factors. Moreover, these scholars appreciate the supply side of the nexus, that is either resource abundance or scarcity leads to conflict. In contrast, however, this study does not only appreciate the supply side of the nexus between resources and conflict, but rather also the demand and structural sides of the equation. Most importantly, instead of treating the nexus as ahistorical, this study makes a historical reading of the subject. This holistic reading of the subject brings the socio-political aspect of the context under study and how this intersects with climate change to produce violent conflict. In so doing, the study does not appreciate how climate change affects violent conflicts, but also how socio-political characteristics aids or countervails the transition.

On the policy front, Somalia signed the Paris Climate Agreement in 2016 while it contributes minuscule to global greenhouse emissions (UNDP, 2016). However, there are no macro and micro-level state policies that are aimed to mitigate the conflict potential of climate-induced resource scarcity in this space characterized by perennial conflict. By unearthing the pathways that link the change of climate and violent conflict and how the totality of all this mediates insecurity threats in the region, this study will proffer policy options that can mitigate the impact that change of climate has on conflict. Therefore, this study will be of importance

to the peacebuilding efforts in Puntland state by shedding light on the role climate change has vis-à-vis conflict and how this can be mitigated.

1.6   Scope and Limitation of the Study

This study will be conducted in Puntland state of Somalia, specifically in Bari, Nugaal and Mudug regions. This study is confined to the period of 2008 to 2020. This is so because starting from 2008, the region experienced increased frequency of droughts. At the same time, the region witnessed cascades in security dynamics during the said period as militant groups shifted to this space as their operating ground. In fact, the region witnessed its first suicide bombing in 2008 (Harnisch, 2010). Therefore, it is the coincidental increase of drought frequency and, at the same time, insecurity in the region that the chosen study period is predicated upon.

In view of the sensitive nature of the study subject matter, sometimes respondents of the study showed hesitance to accept to respond to the study questionnaire. However, the researcher clarified from the onset that the information sort is solely for academic purposes and explained in detail how confidential the identity of the respondent will be. Similarly, the researcher provided respondents the authorization letter from the university as well as that from the Puntland Ministry of Education, as a proof. This helped to gain the trust of the respondents for them to participate in the research study.

1.7   Literature Review

This section of the study reviews the existing literature on the research topic uncovering the scholarly debates in the subject. The section is divided into two. The first looks at the existing literature on climate change and conflict, while the second appreciates that on climate change and security.

1.7.1   Climate Change and Violent Conflict

Existing climate change and conflict research lacks consensus among scholars insofar while some assume direct link, others hold that there is no empirical evidence supporting this claim. In fact, climate change conflict research remains "inconclusive" (Baalen & Mobjörk,

2017) and "moribund" characterized by "ontological, epistemological and methodological disagreements" (Deligiannis, 2012, p. 79). It is in this regard that Salehyan (2014) argues that climate-conflict research is in the period of "immature science" since there is no commonly accepted paradigm across the field in relation to the nexus between the change of climate and conflict.

Tol & Wagner (2010) investigate the role of changing climate on conflict in Europe for a period of one thousand years. Using data on the number of conflicts and climate, the authors found that before the industrial revolution in Europe, a correlation between lower temperatures and violent conflicts existed where lower temperatures were punctuated by an increase in violent conflicts. However, this correlation faded away after the start of industrialization in Europe thus signifying that the level of economic development is a determiner of the relationship between change of climate and conflict. In line with the foregoing, the authors argue that due to the registered economic development in Europe, climate change will not lead to violent conflict within and between states in the continent.

In the same vein, Zhang, et al. (2006) investigates the link between climate change, wars and dynasties in China for a period of a thousand years. Zhang et al. found that cold climate periods were accompanied by wars in China. This is so because preceding the cooling phase are warm periods with increased agricultural production that resulted in increased population growth. However, since China's main livelihood was agriculture, the decreased thermal input during colder periods resulted in reduced agricultural production. This engendered reduced state revenue, famine and, in turn, revolts. Thus, this served as a "push force" leading to wars. The foregoing animates "dynastic cycles" in China where dynasties fall because of increased number of wars during colder periods underpinned increased population and low agricultural productivity. Conspicuous in the foregoing literature is that change of climate informs the onset of violent conflicts and also affects the stability of states.

Urdal (2008) focuses on sub-national level in India to examine the nexus between resources, demography and conflict. Underpinning this is that cross-national studies assume nations are unitary thus obfuscating the local population, environmental and conflict diversity. The study finds a positive and significant correlation between population growth, reduced agricultural productivity and conflict in rural areas of India. Also, the study finds a strong correlation between increased youth and the risk of political violence especially when there is more male compared to female. In that regard, the study supports the neo-Malthusian

perspective which maintains that resource scarcity coupled with increased population may engender violent conflict. The author argues that studies on environmental scarcity and conflict should focus at the local level since spaces in a nation have no equal resources, population density and as a result have different risks to violent conflict.

Reuveny (2007) maintains that increased migration underpinned by the change of climate is likely in Less Developed Countries (LDCS). The assumption here is that people whose livelihoods are dependent on the environment tend to migrate if the net benefits of doing so outweigh costs. However, the nexus migration and violent conflict in receiving areas is not given and is a function of four channels that are interrelated. First, migration may engender resource competition in the receiving areas, which may lead to conflict. Secondly, ethnic tension may arise between migrants and residents of receiving areas if the two are from different ethnicities. Thirdly, migration may create distrust between migrants and the host community insofar the latter may fear that this may alter the existing ethnic balance which may lead to conflict. Lastly, fault lines may arise as migrants compete for land and jobs with the local communities. A case in point is 12 to 17 million Bangladeshi migrants who migrated to Assam province in India in the 1970s due to land degradation and resource scarcity. This led to ethnic and religious animosity in the receiving area, which turned to violent conflict and later into an insurgency in the 1980s. Evident here, therefore, is that migration induced by the change of climate may mediate violent conflict if channels necessary for this nexus exist.

Homer-Dixon (1999) posits three sources of resource scarcity namely; the supply, demand and structural induced scarcities. The supply-induced scarcity is a function of decreasing availability of resources due to consumption and degradation; demand-induced side of scarcity, on the other hand, is caused by increased population growth, while the structural side of scarcity is a function of skewed resource distribution thus mediating "ecological marginalization" of certain groups and spaces. The amalgamation of these sources of scarcities animates increased competition for scarce resources, which may mediate conflict. Pakistan, according to Homer-Dixon, is a case in point where due to decreased availability of water, fertile land and forests coupled with their unequal distribution engendered migration of poor rural dwellers to urban cities like Karachi and Hyderabad. Already existing high fertility rates in these receiving areas in addition to the migrants lead to population pressures thus mediating competition for scarce resources causing violent conflict among ethnic groups.

Gleick (2014) argues that climate variability and prolonged droughts were among a web of interrelated factors that contributed to the Syrian civil war, which started in March 2011. The country experienced a prolonged drought that was multiyear and multi-season starting from 2006 to 2011. The resultant water shortages from drought engendered reduced agricultural yields, which in turn affected the livelihoods of rural population. In fact, between 2006 and 2009, a staggering 800,000 people living in eastern Syria lost their livelihoods and the UN estimated that at the end of 2011 between one to three million people were affected, about one million of them in a state of food insecurity. At the same time, one and half million affected people in rural areas moved to urban cities. Exacerbating all this is the poor planning and management of the Assad regime to address the economic challenges caused by the prolonged drought, which, in turn, lead Syrians to publicly voice their discontents paving the way for the civil war. Of importance here, therefore, is that climate change can unravel states that are dependent on rain-fed agriculture by disrupting the livelihoods of the people, which, in turn, may lead to unrest and political violence and thus this study seeks to examine these dynamics.

Burrows & Kinney (2016) note that according to published figures the projected number of people who will migrate due to climate change by 2050 are between 50 million to 1 billion. However, not all affected by climate change are able to migrate; doing so as an adaptive response is a function of income and not all affected people necessarily have the capacity to migrate. Crucially, Burrows and Kinnney highlight that migration underpinned by the change of climate may mediate violent conflict provided migrants are viewed as "others" who compete for scarce resources and jobs with the local community. More importantly, the view of otherness may lead to real or perceived fear in the host community that migrants may alter the existing ethnic make-up of the receiving area and hence this may lead to conflict. In addition, paramount in all this dynamics is the receiving state's institutional capacity to integrate migrants and amicably solve disputes between them and the host community. In essence, the view of the host community towards migrants and the receiving state's institutional capacity are crucial determinants of the relationship between migration induced by the change of climate and conflict.

Brzoska & Fröhlich (2016) postulate that migration underpinned by the changing climate combines with contextual factors to engender conflict. Crucially, Brozka and Fröhlich highlight three regions that are conflict-prone vis-à-vis climate change-induced migration. First is regions with pre-existing resource scarcities, and therefore migration mediates the

competition for these scarce resources between the host community and migrants which may lead to conflict. Secondly, migration to regions with a history of conflict is liable to increase this conflict insofar this causes a shift in the identity dynamics of the receiving area. As such, migrants may be drawn into the conflict. Thirdly, regions with homogenous people in terms of identity tend to resist foreign migrants and therefore migration into these areas may engender unrest, which may lead to conflict. Notable is that Brozka and Fröhlich do not assume a direct link between migration mediated by change of climate and violent conflict but give prominence to the characteristics of the receiving area which determine this link.

Klare (2001) holds that in the post-Cold war, a shift from political and ideological to resource-based wars is experienced, and in turn a shift of "strategic geography." This is because competition for vital resources among states mediates the emergence of "a new map of the world" and "new geography." According to Klare, water will become of vital importance in the Middle East because of already existing water scarcity in this region, which will be exacerbated by increased population growth and climate change. In addition, since water sources in this region are cross-boundary, water scarcity will engender increased competition among states where each state wants to increase its share, and this is likely to increase the likelihood of conflict. In that regard, water will become salient and of strategic importance in the Middle East animating future conflicts in this region.

According to Collier, Conway, & Venables (2008), Africa stands to lose most to changing climate while at the same time it contributes a limited amount of greenhouse gases into the atmosphere. This vulnerability is due to the continent's dependence on rain-fed agriculture. In fact, agriculture employs 60 percent of the workforce in Africa and contributes to 50 percent of GDP in some African countries. Due to increased temperature and rainfall variability caused by climate change, it is projected agricultural yields will reduce insofar some projections estimate 50 percent yield reduction in some countries. At the same time, high temperatures will contribute to diseases notably Malaria and dengue, among others. Moreover, rising sea levels also pose a threat to coastal areas such as inundation. All said, climate change proves to be a significant threat to the African continent.

Cognizant of the foregoing, the Peace and Security Council of the African Union (AU) in its 774th meeting deliberated on "the link between climate change and conflicts in Africa and addressing the security implications." The council acknowledged the impending climate change security risks not only to the African continent but also to global security. The council

emphasized the importance of global, continental, regional and national level coordination among states to mitigate the effects of changing climate by implementing global frameworks including the Paris Agreement. Of importance is the council's recommendation to the AU commission to develop early warning and early action systems to mitigate climate-induced violent conflicts and to develop a continental framework to respond to real and perceived security threats of changing climate. Also, the council noted the need for research on climate change-security dynamics in the continent (AU, 2018).

Link, Scheffran, Piontek, & Schilling (2013) examines whether climate change can mediate water conflicts in the Nile river basin. They argue that shifts of power balance between downstream countries, that is Egypt and Sudan and upstream countries, Ethiopia and Uganda, is likely to mediate a change of status quo in the Nile river basin through either conflict or cooperation. Prior to this change of balance of power, Egypt was "hydro-hegemon" in the region because of the historical external support it received due to its strategic position, hence stability. However, this stability is threatened by the shift of the balance of power. Exacerbating the foregoing power shift dynamics is climate change, which may engender water shortages due to increased temperatures and changing rainfall patterns. Also, as water demand increases in the Nile region due to population growth, the likelihood of conflict increases among the riparian states. However, the authors put human agency at the heart of their argument maintaining that conflict is not a given, and cooperation is rather possible if political actors translate this changing dynamics into an equitable water sharing agreements and focus on water-use efficiency. This depicts that climate change cannot only mediate intra-state conflict but also inter-state as well.

Burke et al. (2009) investigates how temperature affects conflict in sub-Saharan Africa. Using panel regression of climate changes and conflict dynamics between 1981 and 2002, the authors found that conflict substantially increases during warmer periods. And that an increase of 1°C in temperature engenders a concomitant 4.5 percent and 0.9 percent increase in civil war in the said and the subsequent years, respectively. In fact, the projected warming in the continent is likely to increase the likelihood of conflict by 54 percent in 2030. According to them, the most important link that informs this nexus is agriculture. This is so because temperature-induced agricultural yield reduction affects the economic well-being of most households, and as existing research points to, there is strong association between economic well-being and conflict incidences. In light of foregoing, climate-induced temperature increase may engender increased violent conflicts in sub-Saharan Africa.

Buhaug (2010), in contrast to the preceding, maintains that climate variability does not predict conflict outbreaks in sub-Saharan Africa. Using different model specifications measuring drought, temperature and intra-state conflict in Africa, the author found that temperature increase and intra-state conflict have no relationship. However, structural factors are key, including the exclusion of certain ethnic groups from politics, poor economic growth and the discontinuation of the cold war configuration, which explain the increase of civil conflict occurrence in the continent.

Baalen & Mobjörk (2017) explore the mechanisms that translate the impact of changing climate to conflict in East Africa and present four key mechanisms. First is worsening livelihood conditions where climate change affects the income of climate-dependent farmers and pastoralists. Worsening livelihoods therefore lowers the opportunity costs of the said groups to take arms or join armed conflict. Second is climate-induced migration, which may engender ethnic conflict in the recipient areas as it animates competition for scarce resources given that there are no existing conflict resolution mechanisms. Third is tactical consideration by armed groups as livestock raiding which is common in the region is opportune during wet periods as animals are fat and can walk long distances, and there is thick vegetation where raiders can hide. In contrast, dry periods are conducive for armed rebel groups as it is this period that military and logistics can be transported. Fourth is elite exploitation as climate change induced grievances presents an opportunity for elites to exploit to further their selfish interests such as distracting their failures or cementing the support of certain groups.

Kahl (2006) appreciates the nexus between "demographic and environmental stress (DES)" and violent civil conflict. According to Kahl, two pathways are crucial for this nexus; state failure and state exploitation. Also important are two key intervening variables; state's ethnic makeup (groupness) and its institutional inclusivity. To demonstrate the state exploitation hypothesis, Kahl takes Kenya as an example where he argues that the 1991-93 ethnic clashes in the country were a result of land scarcity underpinned by environmental degradation, increased population and skewed land distribution. This, however, was exacerbated by the state exploitation. The Moi regime, facing clamors for pluralism, saw this as an opportunity to perpetuate their hold to power by pitting ethnic groups one against the other, supporting those that are pro-regime while punishing those that are against the regime; and the same time branding the multiparty system as that which will lead to ethnic conflicts. Evident here is that state elites can serve as the pathway connecting environmental stress and conflict as far as their selfish interests are concerned.

Adano, Dietz, Witsenburg, & Zaal (2012) argue that institutions are crucial determinants of the change of climate vis-à-vis violent conflict link. They use two cases from Kenya to prove their point. In Marsabit district in northern Kenya, violence peaks during wet periods and the opposite is true during dry periods. This is because pastoralists use social institutions to mediate peace and share scarce resources during dry seasons as they need to focus their energy on overcoming drought. In contrast, livestock raids increase during wet seasons as animals are fat and can walk long distances and there is thick vegetation for hiding by raiders. On the other hand, in Narok district in southern Kenya, the "Loita Naimina Enkiyo" forest manifests how institutions are crucial in conflict over natural resources. The Loita forest served as fallback area for the "Loita Maasai" and "Purko Maasai" pastoralists during dry periods and was regulated by customary law. However, a Kenyan minister from Purko Maasai in collusion with local elected leaders tried to gazette the forest denying access to locals. But he faced resistance from the Loita Council of Elders (LCE) as they mobilized local people and took the matter to court. The issue took the center stage of 1992 elections and elders succeeded the forest to continue being open for use by locals. Evident here is that local institutions are crucial in the nexus between change of climate and violent conflict; considering that conflict is not a given and thus institutions can mediate cooperation.

Webersik (2008), in contrast to resource scarcity-conflict thesis, argues that Somalia's prolonged conflict is best explained by skewed distribution of resources among clans. Powerful clans dominated productive land in Lower Shabelle, Bay and Banadir regions that are fertile and are conducive for the production of cash crops, such as banana, using force. Thus, this sets the pace for "political economy war" in which actors who have benefited from this dynamics act as spoilers against peace while those excluded create alliances to fight back, hence perpetuation of the civil war. However, Weberisk argues from a unitary point of view where he does not appreciate the spatial differences of the country in regards to resources. While the southern part of the country is characterized by abundance of resources, the opposite is true for northern parts including Puntland. Therefore, this study appreciates the relationship between change of climate and conflict in a resource-scarce space.

Mystadt & Ecker (2014) expounds on mechanisms that explain the effects of climate change on civil war in Somalia appreciating how reduced livestock prices due to drought affect conflict in Somalia. In concrete terms, Mystadt and Ecker found a strong relationship between droughts and conflict insofar that one standard deviation increase in the intensity and duration of the former increases the likelihood of the latter by 62 percent. This is so because livestock

prices reduce during drought hence affecting the income of pastoralists. Thus, this reduces the opportunity cost of these groups to engage in conflict. However, this study only appreciates reduced income from livestock during drought and does not expound on other mechanisms. And it is this gap this study wants to fill. Crucially, this study assumes that the environment is not "apolitical" and that understanding the nexus between resource scarcity underpinned by change of climate and violent conflict necessitates an analysis of political and historical dynamics of the context under study. It is in light of this that this study wants to examine the nexus between climate change and conflict in a trifurcated state where the state, clan, and localized regional-global networks competing for power and resources animate conflict dynamics.

1.7.2   Climate Change and Security

The aftermath of the fall of the Berlin wall in 1989 mediated a widening of the scope of security from the traditional state-centric perspective where security is viewed as a lack of military threats to state's sovereignty and territorial integrity, to including unconventional threats to the purview of security. Important here is the securitization of the environment where the environment is elevated to an issue of "high politics." That is, environmental degradation underpinned by increased population and the change of climate pose existential threat to the stability of states. To that end, Gleick (1999) argues, "the era of the cold war may soon be replaced by the era of environmental conflict" (p. 21).

Securitization entails the process where an issue is depicted as one "posing existential threat to the state" and is therefore above politics. Thus, this comes under the realm of the state, specifically under the defense establishment. As Buzan, Wæver & Wilde (1998) note, the securitization process of an issue goes through three stages. In the first stage, the issue is non-politicized, where it does not come up as a political agenda for debate; to being politicized, where it becomes a political agenda in which political actors debate best options to address the said issue; and lastly being securitized, where the issue is framed to be posing an existential threat and, therefore, is elevated to high politics needing extraordinary measures to be addressed by a few.

The foregoing depicts the "narrowers" versus "wideners" debate in security studies. The former group maintains that security is confined only to military-related issues of the use of force and that the state is solely security's referent object. In contrast, however, the latter,

stimulated by the end of ideological wars after the Cold War, argue that the state also faces non-military threats. And, therefore, the referent objects of security should be widened including society, environment and the national economy. For security "is about survival" and "is when an issue is presented as posing an existential threat to a designated object (traditionally but not necessarily the state, incorporating government, territory and society)" (Buzan, Wæver & Wilde, 1998, p. 21). According to wideners, therefore, since non-military threats pose a threat, they should also be securitized.

In line with the wideners perspective, the US Department of Defense (2014) in its Quadrennial Defense Review report adds climate change to the threats facing the US. The DoD report asserts that the change of climate is a threat to international security insofar it will lead to rising sea levels and increased global temperatures thus causing water scarcity and increased food prices. And that besides competition for scarce resources, climate change burdens the economies and institutions of states. As a result, the change of climate is a "threat multiplier" that will aggravate "existing global poverty, environmental degradation and social tensions." These factors act as triggers of violence and in turn enable terrorism, endangering the national security of the US.

Relatedly, Schwartz & Randall (2003) appreciate an abrupt climate scenario based on a century ago climate event and its implication for the US national security. They predict a warming earth and increased frequency of storms and typhoons. As a result, this engenders food and water shortages, and the disruption of global energy access. This lowers the carrying capacity of the earth mediating a competition among states for scarce resources likely leading to war. In that regard, Schwartz and Randall argue that the world will be bifurcated into defensive and offensive states. The former states, which includes the US, have enough resources, and are likely to build fortresses, while the latter are resource-scarce and will try to fight for their survival by seeking the resources of endowed states. Moreover, due to decreased energy access, states will build nuclear energy thus engendering global nuclear proliferation. Therefore, climate change, the authors argue, poses an imminent threat to national security of the US and that of the entire globe as well.

Centre for Naval Analysis (2007) posits that US national security is a function of global stability. Of concern therefore is that climate change will destabilize global states by decreasing food and freshwater availability, rise sea levels and cause pronounced health problems. Consequently, this engenders increased failed states in the world characterized by ungoverned

spaces due to their inability to project power and also deliver services to their citizenry. This therefore affects the national security of the US in two ways; first, the US will be required to deploy its troops for humanitarian missions to failed states, and secondly, failed states serve as operating spaces for terrorist organizations.

Barnett (2000) argues, contrary to the foregoing discourse, that the promoted climate change-conflict thesis by the US obfuscates the most important aspect. That is, emphasis should be on the "cause" rather than the "effects" of climate change. In fact, while the US is the world's biggest economic powerhouse that omits the largest share of greenhouse gases that contribute to global warming, the existing discourse presents climate change as an "externally originated security threat" to the US national security rather than a product of the US economic configuration. As such, Barnett argues that the climate change-conflict discourse does not address the root cause of climate change. Rather, it is choreographed by the US security and military establishment to safeguard the legitimacy of their large budgets in the post-Cold War era.

Barnett, Matthew, & O'Brien (2010) posit that securitization of climate change is a counterproductive insofar it frames the issue as one that needs state response commensurate to that of war. Importantly, this means that the issue needs extraordinary measures and therefore normal balances and checks need to be sidelined. In light of this, Barnett et al. emphasize the need to focus on human security which "is achieved when and where individuals, and communities have the options necessary to end, mitigate, or adopt to their human, environmental, and social rights; have the capacity and the freedom to exercise these options, and actively participate in pursuing these options" (p. 18). Of specific importance in the human security viewpoint is that the response to the defined threats is not only confined to the state but people and communities affected are put at the heart of all these and their perspectives are taken to be important.

Brown, Hammil, & MCleman (2007) argue that the change of climate is framed as the "mother of all problems" that poses significant threat to all states and more so to the security of African states. This comes against the backdrop that Africa contributes miniscule amount to global greenhouse gases emissions. It is in this respect that Yoweri Museveni, Uganda president, said that climate change is "an act of aggression" by developed countries against those that are in the development stage. In the same note, the UN representative for Namibia called global warming is "low intensity biological or chemical warfare" against African states.

Important here is that climate change jeopardizes the security of African states while their contribution to it is minimal.

Eklöw & Krampe (2019) analyzes how climate change affects security and peacebuilding in Somalia giving special attention to how this dynamics affect the mandate of the United Nations Assistance Mission in Somalia (UNSOM) that includes assisting Somalia in ensuring peace and security and promoting governance and justice. Elucidating on this, Eklöw and Krampe argue that climate change jeopardizes the mission of UNSOM inasmuch as it increases low-intensity herder-famers conflict, lowers the opportunity cost for insurgent groups to recruit people whose livelihoods were shattered by climate change. Moreover, this may mediate fierce competition for resources that are scarce such as land, livestock and water. However, Eklöw and Krampe give attention to how climate change affects the UNSOM mission and overlook those most affected -humans- who inhabit this space. Accordingly, this study gives paramountcy on how the change of climate affects human security and that of state security at a higher level.

1.8   Theoretical Framework

This study adopts Homer-Dixon's "environmental scarcity and violent conflict" theory. Homer-Dixon focuses on renewable resource scarcity such as fertile land, freshwater, forests, and fish and postulates that resource scarcity is function of three sources of scarcity; "supply-induced scarcity" mediated by land degradation and soil erosion, "demand-induced scarcity" engendered by increased population, and "structural-induced scarcity" underpinned by unequal distribution of resources. These three sources of scarcity interact through two common patterns; "resource capture" and "ecological marginalization". The former happens when a powerful group captures resources in times of scarcity for their selfish gain, while the latter happens when vulnerable people due to resource scarcity migrate to places, which are not conducive for human settlement such as steep mountain slopes thus causing increased environmental degradation (Homer-Dixon, 1999).

Concomitantly, resource scarcity engenders five social effects; low agricultural yields and in turn poor economic growth, increased migration, pronounced social cleavages and weakened institutions. The foregoing effects may animate violent conflict through the concept of relative deprivation; that is, individuals or group's perceived widening gap between what they actually have and what they deserve to have. However, two factors are important in the

transition to violent conflict; the existence of groupness—us vs them— where collective action can be mobilized and lack of political platforms where people can express their grievances. These factors lower the opportunity cost of these people to engage in violent conflict. The net effect therefore is that resource scarcity may lead to intra-state group competition for scarce resources and in turn may engender violent conflict (Homer-Dixon, 1999). The theoretical framework adopted is important for this study insofar it does not assume the nexus resource scarcity underpinned by change of climate and violent conflict as a given, however, it embeds this link in social, political and economic dynamics of the context under study. Most crucially, the theory gives paramountcy to the political and social makeup of the context under study assuming this to be the deciding factors of the link. This is important as the context of this study, Puntland state, is characterized by perpetual clan conflict related to water and pasture. This is exacerbated by climate-induced resource scarcity, social fragmentation and weak state institutions.

To explore the security implications of climate change, however, the study compliments Homer-Dixon's theory with securitization theory of Buzan et al. (1998). Securitization refers to when an issue is elevated to "high politics" through speech act. Core here is the rhetoric used by key actors to securitize an issue and how this is accepted by the germane audience. Importantly, securitization theory shifts security from that which is confined to state to include societal security. As such, anything that threatens the existence and identity of society can be securitized. Here, the scarcity of resources as a result of climate change can be securitized by the society, as it is an issue of survival. Consequently, this legitimizes the use of extraordinary measures. Of interest are environmental, political, societal and military sectors as lenses for analysis. As climate change engenders scarcity of critical resources, this mediates securitization of these resources by clans as an issue of survival at societal level, hence legitimizes the use of force. In turn, the state will intervene militarily to ensure security. However, since the state is predicated on "genealogical logic," (Hoene, 2014) this mediates state institutions to be "clannised" thus animating resistance from the society vis-à-vis competition for critical resources. Underlying all this is the "idea of state" deficit as a core component of the state (Buzan, 1983). The net effect, therefore, will be perpetuation of insecurity as this presents an opportunity for exploitation to non-state actors who are against the state. As such, the study uses securitization theory to analyse how climate-induced scarcity of critical resources animates security and insecurity threats in the context of study.

1.9 Definition of Key Concepts

Climate Change: the study adopts the IPCC definition of climate change that it is overtime change of climate underpinned by natural variability or anthropogenic activities (IPCC, 2007). The strength of this definition is that it considers the natural and human side as the causes of climate change.

Violent Conflict: this study adopts Baalen & Mobjörk (2017) definition of violent conflict, which is the deliberate use of violence by "government, organized or semi-organized groups" against "state forces, organized or semi-organized groups or ordinary people." The strength of this definition is that it includes not only the state as the actor that can engage in violent conflict, but also organized or semi-organized groups. The weakness of this definition is that it does not specify the means of violence used for the conflict to qualify as one that is violent. However, this study takes the use of arms as an important indicator for a conflict to be considered violent.

Distance Decay: the concept of distance decay is borrowed from Geography and holds that relationship is a function of distance; that the more the distance between things, the lesser their relationship and the opposite is true. The study adopts Ngunyi & Katumanga (2014) conceptualization of distance decay that it encompasses economic, political and social aspects. That is, the inclusion/exclusion of members of the society in the economic, political and social realms decide their relationship with other members of the society and the state.

Militarization of Access to Scarce Resources: this refers to securitization of scarce resources by a collective identity group as critical for their survival, hence legitimizing the use of extraordinary force. Key here is the use of rhetoric by actors to persuade relevant people that said scarce resources are an issue of survival hence collective action, and in turn, zero-sum violent conflict.

***Xeer*:** this refers to the traditional customary law of Somalis, which guided relations among individuals and groups. The study adopts the definition of Lewis (1961, p. 162) of *Xeer* as a socially defined and enforced intersubjective agreement that is a combination of "obligations, rights and duties." This system is orally passed from one generation to another and may have some differentiations across time and space.

1.10 Research Hypotheses

I. That the nexus between climate change and violent conflicts is a function of actor militarization of access to scarce resources

II. That securitization of climate change-induced scarcity of critical resources engenders securitization at societal and state levels which mediates a perpetual violent conflict underpinned by the idea of the state deficit.

1.11 Methodology

This section expounds on the methodology that was used to achieve the proposed research objectives and covers the following sub-sections: research design, study area and study population, sampling, data collection and analysis.

1.11.1 Research Design

The study used descriptive research design. This is so because it allows the researcher to provide a detailed description of the phenomena under study, and how things relate. As far as descriptive research design is concerned, emphasis is given to a detailed background information and explanation of social systems and relationships therein (Adams, Khan, Raeside, & Whit, 2007). Qualitative research method is utilized in this study insofar it gives prominence to context under study and its inhabitants, and how they interpret their social world. Thus, this allows understanding the meaning people give to their actions, values and beliefs. Essentially, qualitative research is "a unique tool for studying what lies behind or underpins, a decision, attitude, behaviour and other phenomena" (Ritchie, 2003, p. 28). Thus, this study adopted a qualitative research method to understand the nexus between climate change and conflict in Puntland.

1.11.2 Study Area and Study Population

This study was conducted in Puntland State of Somalia, a federal member state (FMS) of the Federal Republic of Somalia. Specifically, the study was conducted in Garowe, Iskushuban and Jariban districts in Nugal, Bari and Mudug regions, respectively. The target population of this study is pastoralists, internally displaced persons (IDPs), traditional elders, non-governmental organizations (NGOs) staff, and government officials. The total population

that was targeted in this study is 50, disaggregated in the following manner: 20 pastoralists, 5 IDPs, 10 traditional elders, 5 NGO staff and 10 government officials.

1.11.3 Sampling

The study adopted non-probability sampling. Specifically, purposive sampling technique was utilized. This is because the study focus area, climate change and conflict, affects periphery spaces dominated by pastoralists. Thus, the information sort will only be obtained from specific people, that is, the study target population, which includes pastoralists, IDPs displaced by the climate change, traditional elders, NGO staff and government officials who have the necessary information that will be utilized to realize the research objectives. The key strength of this is that it avails the subjective perspectives of those affected. However, to avoid bias the study used secondary resources to corroborate data collected.

1.11.4 Data Collection and Analysis

The study used both primary and secondary data. In the former, interviews were conducted through face-to-face so as to collect data from the intended population. Interviews provide "an opportunity for detailed investigation of people's personal perspectives for in-depth understanding of the personal context within which the research phenomena are located" (Ritchie, 2003, p. 36). The study used a semi-structured questionnaire (see appendix I) to serve as the basis for the interviews with respondents. To corroborate the primary data, moreover, secondary sources were consulted including books, academic journals, reports and media articles and necessary information was extracted to realize the research objectives. As far as data analysis is concerned, the study adopted content analysis to analyse the collected data.

1.12   Chapter Outline

The study is organized into five chapters; Chapter One looks at the background of the study, the statement of the problem the study is trying to address, research questions and objectives, justification of the study, review of the existing literature of the study subject, theoretical framework used, research hypothesis and methodology adopted to realize the proposed research objectives.

Chapter Two seeks to contextualize the nexus between the change of climate and violent conflict in Puntland state of Somalia. The chapter begins by exploring how colonialism has engendered the socio-political transformation of Somali society through the commercialization of livestock and urbanization. Eventually, this informed the increased saliency of territory. Further, the chapter explains how identity is politicized in post-independence Somalia. These two factors are imperative when explaining the nexus between the change of climate and violent conflict in Puntland

Chapter Three expounds on the first question of the study on what factors explain the nexus between changing climate and violent conflict. Specifically, the chapter looks at how the adverse effects of a changing climate brings about violent conflict by looking at the contextual factors that determine this link. Underpinning this is that the climate change-conflict nexus is not given but a function of the contextual factors, which are crucial determinants of this link. The chapter explores the social, economic and political factors that explains the nexus between the change of climate and violent conflict in Puntland

Chapter Four looks at how climate change mediated insecurity threats in Puntland affect violent conflict dynamics. Of interest here is that the said space is trifurcated where a trilogy of state elites, clans and localized regional-global networks vie for state power. As such, the chapter looks at how climate change mediated insecurity threats pronounce violent conflicts, and how this may intersect with the existing politico-security dynamics. Ultimately, this changes the nature and intensity of the violent conflict and may produce "a market of violence."

And lastly, Chapter Five summarizes the findings of the study, recapitulates hypotheses, conclusion, and proffers policy recommendations that can help in the mitigation of the effects of climate change on violent conflict in Puntland.

CHAPTER TWO
CLIMATE CHANGE AND VIOLENT CONFLICT IN PUNTLAND: A HISTORICAL CONTEXTUALIZATION

2.0   Introduction

The Somali Republic, which gained independence in 1960, was born out of the unification of the British and Italian Somaliland. Fortuitously, contrary to other African states characterized by ethnic diversity, which proved to be a challenge in state-building, Somalis are homogenous society and hence this was viewed as a positive attribute of state-building (Kusow, 1994). Contrary to expectations, however, the country experienced the tribulations of a brutal dictatorship, protracted civil war and later became a hotbed for terrorist groups. Consequently, Somalia is ranked at the top in the global failed states' list (Fund for Peace, 2020). It is in the ruins of the Somali state that Puntland was established in 1998.

This chapter seeks to do a historical contextualization of the nexus between the change of climate and violent conflict in Puntland. In so doing, the chapter argues that two inter-related historical trends are imperative to fully appreciate the said nexus in this context. The first is the increased relevance of territory to clans after the arrival of colonials in the country. Prior to this, there was no great relevance given to the control of territory as people migrated from one place to another in light of the harsh weather conditions. The increased salience of territorial control informed the emergence of "contested spaces." This trend has been further animated by the second trend, which is the politicization of identity in post-independence Somalia. The nature of state design has produced a plurality of political identities with diverging envisioning of the future as far as state-building is concerned. In the end, this informed the politicization of geography such that, besides the control of resources as an issue of survival, territory becomes fundamental for the realization of political projects by different political identities. While droughts intersected with these trends before the collapse of the Somali state, however, this has been countervailed by the existence of the state, which responded to those affected, as well as had a comparative advantage of the monopoly of means of violence. The state of Puntland lacks these qualities while, at the same time, the frequency of droughts has been intensified by the change of climate since 2008.

The chapter is organized in four sections; the first section explains how the arrival of colonials in the country has altered the socio-economic characteristics of Somali society. With the commercialization of the livestock, this has engendered the emergence of urban centres and the creation of villages. In addition, the introduction of *Berkads* for water storage purposes

informed a sedentarization process of pastoralists. These dynamics mediated territorialization with each clan claiming the ownership of specific territory. The second section explores the politicization of identity in post-independence Somalia. As a result of the institutional makeup, a plurality of political identities were formed underpinned by cultural identities, albeit not guided by the customary traditional system that guided the relations of the latter. This informed the collapse of the state and subsequent creation of Puntland. The third section outlines a conceptual analysis of the nexus between the change of climate and violent conflict, and the final section is the conclusion.

2.1   Pre-Independence Period and the Increased Salience of Territorialization

Historically, Somalis inhabited the Horn of Africa as early as 100 A.D. During these earlier periods, they were referred to as different names by different people. The Arabs named them the "Berberi" while Egyptians referred to them as "the Land of Punt" meaning the "God's Land." Ethnically, archaeologists place the Somalis among the Eastern Cushites, which include the Afar people who live in Djibouti and Ethiopia, the Oromos who largely live in Ethiopia and also in Kenya, and the Rendille and the Aweer who inhabit in Kenya (Samatar, 1993). However, it is to be noted that some Somali clans trace their roots to Arabs claiming that their ancestors migrated from the Arab peninsula and intermarried with Somalis.

Starting from the 8th century, Somalis inhabited along the coastlines, mainly in Zeylac and later Berbera, and established trading links with Arabs, China and India. Here, Somalis exported hide and skin, ostrich feathers, gums, among other products, in exchange for clothes, dates and weapons. It is through this trade connection with Arabs that Islam spread in Somalia. Notably, there was no centralized state system during this period until the 15th century when this form of governance was first introduced to Somalis and the Adal Sultanate was established (Samatar, 1993).

Zeylac was the headquarter of the Adal Islamic Sultanate, which was part of Ifat state that stretched from Zeylac to Jigjiga and to the Harar plateau in present day Ethiopia. Zeylac became a hub of commerce and Islamic learning for the region, and during this period, mosques and Islamic teaching centers were built characterized by magnificent architectural designs. The Ifat state engaged in a war with Ethiopian Amhara highlanders. In fact, the first record of the name "Somali" appears in a celebratory song for the Ethiopian King Negus Yeshaq (1414-

1429) after his battle defeat of the Ifat state and the killing of its ruler Sa'd ad-Din in 1415 (Lewis, 1988).

Later, history indicates that Somalis migrated from the northern coasts to the southward of the country. This was underpinned by an increased population and severe droughts that hit the northern coastal areas. The migration to the south culminated in Somalis settling along the Jubba and Shabelle rivers and as far as plains in present-day northern Kenya. This corresponds to current geographical dispersion of Somalis (Lewis, 1988). Evident here is that climate is central to Somalis conflict and migratory patterns as their environment is virtually characterized by harsh weather conditions and scarce rainfall, and a nomadic mode of life. Pastoralists migrate with their livestock in search of pasture and water, and this may cause competition among different groups for the scarce resources. In some instances, this competition engenders a fierce fighting and perpetuates revenge incursions. Accordingly, to sustain their livelihoods in this harsh environment, clans make alliances with others to protect scarce resources, mainly pasture and water, for their livestock against other competing clans. As Elmi & Barise (2010) argue, notwithstanding the legacy of colonialism and authoritarianism, competition for resources is one of the root causes of Somalia's conflict.

During the 19th century, Somalia was partitioned by colonial powers including the British, French, and Italians. The first colonial power to come to Somalia was Britain as it occupied the northern part of the country. Their main objective was to find a source of meat for their Aden garrison stationed in the Red Sea, seen as vital for the defence of the British India. The French, on the other hand, were interested in creating a cooling station and first occupied Obock, later extending their rule to Tajura and Djibouti to ensure naval communication with Indo-China. The Italians, nonetheless, were newcomers to the colonial enterprise and were interested to occupy a space along the Indian Ocean and the Red Sea and settled in the southern part of the country (Samatar, 1993).

Significantly, the arrival of colonials has altered the established socio-economic condition of the society. This is particularly true for pastoralists, as colonialism mediated the commercialization of livestock and the shift of the economic mode from being pre-capitalist to one that is connected to the global capitalist system. Prior to this, pastoralists were engaged in barter trade where they exchanged livestock for other products. However, the new colonial dispensation informed the emergency of merchants who served as intermediaries and bought livestock from pastoralists before selling them at profit. Put more bluntly, colonialism

underpinned the emergence of class in an egalitarian society where a newly formed upper class engaged in surplus extraction from the production of the lower class—pastoralists (Samatar, 1989).

Linked to the above, it is during the colonial period that urbanization has taken root in Somalia. This is underpinned by two factors; first is that colonial powers made specific locations as their administrative headquarters. Secondly, the emergence of merchants, who are mainly based in the newly formed urban centres created by the colonials, has made these locations vital for trade. In this case, pastoralists frequently travelled to these centres to sell their livestock and then buy other essential products including imported food. Taken together, this informed the creation of urban centres in Somalia. At micro-level, urbanization encouraged the establishment of villages by clans as this translates into spatial rights and, in turn, ownership of the resources in the area. This engendered the proliferation of villages, a problem that even existed after the independence period. To ameliorate this, it was ordered by the post-independence Somali governments that villages should at least be 20 kilometres far apart (PDRC, 2018).

The preceding trend has increased the salience of territorialization. That is, the claim of ownership of a certain space by one or more social groups. This what Moore (2016, p. 95) calls "ethno-territoriality" and defines it as "a social and political project the goal of which is to establish an explicitly spatial basis for claims involving ethnic identity, cultural rights, and political authority by identifying and constructing certain places or territories as belongings to or appropriate for certain ethno-national categories of people and practice, and by extension displacing other categories." With no specific laws that guide spatial rights, this creates "spaces of contention" by different social groups. This came against the backdrop of a pastoral society that does not place much importance on territorial delineations as they move from one place to another following the availability of pasture and water for their livestock. As FitzGibbon (1985, p. 20) notes, the boundary of Somalis is "where the] camel stops."

The above is linked to climate, as Somalia is a semiarid region characterized by poor rains. The country has four seasons, which are related to rainfall patterns: Jilaal, Gu', Hagaa and Deyr. Most rain is received during] the Gu' season—between April and June—and also the Deyr season—between October and December. Droughts are a frequent occurring feature in Somalia. For instance, Samatar (1989) states that in a period of sixty-four years, which is between 1925 and 1989, the country experienced thirteen droughts. On average, this means

that drought happens every four years. During dry periods, pastoralists move to locations with pasture and water. With the territorialization trend that gained salience during the colonial period, this makes it difficult for pastoralists to freely move from one place to another with their livestock.

While the trend of territorialization has engendered inter-group conflicts underpinned by the competition for scarce resources during this period, however, this has been counterchecked by two factors. Firstly, there were no pronounced identity-based cleavages during this period. In contrast, there were cross-cutting ties among clans which transcended patrilineal linkages which was mainly developed as a result of inter-marriages among clans. Consequently, this informed a flexible attitude towards territory and reciprocal migration of clans during harsh periods (Heohne, 2016). Secondly, and related to above, there was strong customary law which guided relationships among clans which thus mediated any disputes that may arise as a result of resource competition. Given the lack of established hostility among groups, elders from the respective clans adjudicate the matter until it is settled. This prevents the dispute from morphing into a full-blown conflict among the clans involved.

The territorial logic also informed the establishment of *Berkads* or cisterns, for the purpose of storing rainwater. This was animated by the commercialization of livestock as the *Berkads* provide water during the dry season, which is essential for the fattening of livestock for them to be sold. Similarly, the water can be sold to other pastoralists during the dry period at profit thus proving to be a source of income. Most significantly, this underpinned the sedentarization of pastoralists whereby pastoralists settle in fixed locations rather than constantly move from one location to another in search of pasture and water (Korf, Hagmann & Emmenegger, 2015), except in a severe drought situation where the collected rain water dries. Thus, this gave an impetus to the territorialization trend as *Berkads* denote ownership of a private property.

In sum, the dawn of colonialism encouraged the emergence of territorialization in Somalia where clans claim spatial rights to a specific territory, which, in turn, may engender the emergence of contested spaces. This is in contrast to the established dispensation where pastoralists did not put much relevance to territorial demarcations as they moved with their livestock from one location to another in search of pasture and water. Yet this new development did not inform the emergence of increased conflicts for scarce resources due to the existence

of cross-cutting ties among clans where each welcomed the other during harsh periods, as well as a strong customary system which guided relations and mediated any disputes.

At macro-level, the Somali peninsula was further partitioned after the British in 1897 made an agreement with Ethiopia recognizing the sovereignty of the latter over the Haud region of northern Somaliland without the consent of the Somalis. The agreement, a culmination of the Rodd mission, was between Sir Rennell Rodd representing Britain and Ras Makonen, who was the Governor of Harar province of Ethiopia (Lewis, 1988). The agreement means that Somali pastoralists can no longer migrate with their livestock to the Haud region in search of pasture and water as they used to. As a result, this proved a watershed moment as it engendered fierce resistance by the Somalis against the British and the Ethiopians.

Sayyid Mahammad Abdille Hassan, nicknamed as the "mad mullah" by the British, epitomized Somali resistance against the British, as well as the Ethiopians. An Islamic scholar and a poet, the Sayyid mobilized his countrymen using poetry to stand-up against colonialism. Importantly, poetry resonates well with Somalis, as they are an oral society where important issues are articulated using poetry by gifted poets. As such, poetry serves as a political weapon. In line with this, the Sayyid used his unmatched poetry skills to march thousands of soldiers, which he named as the "Dervishes" to fight against colonialism starting from 1899. The "Dervishes" engaged in various battles with the British inflicting heavy casualties on the colonial soldiers. And the resistance continued until the death of the Sayyid in December 1920 (Samatar, 1982)

Promoting the resistance to colonialism, albeit in a peaceful way, the Somali Youth Club (SYC) was formed in southern Somalia in the year 1943 but was later renamed as the Somali Youth League (SYL) in 1947. The stated objectives of SYL included uniting the Somalis partitioned by colonials in turn leading to their independence, expanding education opportunities, promoting the Somali language by adopting a national orthography and advocating for the interest of Somalis at local and international fora, mainly the United Nations (Samatar, 1982).

As a result of SYL's efforts and lobby, the UN recommended Somalia be placed under Italian Trusteeship for ten years and subsequently granted independence. The Trusteeship, under the watchdog of the UN Advisory Council, was mandated to prepare the country for self-rule by developing its political institutions, expanding its educational infrastructure, and developing the economy. Accordingly, Somalia was granted independence in 1960 and the

unification of southern and northern Somalia paved the way for the creation of the Somali Republic (Lewis, 1988).

2.2   Independence Period and the Politicization of Identity

Following the agreement to unify the southern and northern Somaliland, a united legislative body was established and subsequently Aden Abdulle Osman was chosen in July 1960 as a President. Notably, the newly formed state faced huge challenges. Key among them was the two different governance systems and working languages left behind by the colonial system and the inexistence of Somali orthography if it was to be adopted as the official working language of the state (Lewis, 2008). In addition, there was a lack of infrastructure that connected the centre of power of the state and its hinterland making it difficult for the state to project its power. In this sense, this represents a continuation of the bifurcation of the state.

Notwithstanding the preceding challenges, in contrast to the other African countries, which, during the 1960s, slipped towards dictatorship, Somalia enjoyed nascent democracy and peaceful transfer of power. Dubbed as "Africa's first democrats" (Samatar, 2016), President Aden and his Prime Minister Abdirizak Haji Hussein prioritized building transparent political institutions underpinned by meritocracy and to root out corruption. And, more importantly, after the defeat of President Aden through the ballot by his former Prime Minister in 1967, the President peacefully transferred power. Indeed, this marked the first time in Africa's post-colonial history a President, defeated democratically, peacefully transferred power. As (Samatar, 2008, p. 88) aptly points, Somalia was "the only country in a continent of coups and counter-coups in which a transfer of power by ballots, rather than by bullets, happily occurred, and in which the defeated head of state stayed home unmolested, to enjoy years of peace and prosperity, rather than being driven into exile, as characteristically happened in adjacent lands."

However, the country's march towards democracy was subverted when President Abdirashid Ali Sharmarke was assassinated in October 1969 while on a tour in Las Anood, a city in the north of the country, by one of his bodyguards (Samatar, 2016). Subsequently, this paved the way for a coup by the military led by General Mohamed Siyad Barre. Consequently, this marked the end of Somalia's march towards democracy and the beginning of a long reign of the authoritarian military regime.

The military officers who led the coup established the Supreme Revolutionary Council (SRC) constituting a total of 25 members to rule the country. The SRC termed the coup as a "Marxist revolution", and enunciated that through the application of "scientific socialism" they will oversee the country's transition from one divided along clan lines to a developed state (Samatar, 1993). In any case, the military regime in their formative years succeeded in adopting the Somali orthography where Latin was chosen, oversaw a nation-wide literacy campaign and the expansion of education infrastructure, and the implementation of big projects including agriculture, manufacturing and infrastructure.

However, failures in the domestic and international milieus precipitated the decline of the military regime. On the former, the military regime failed to create an idea of the state, which serves as the bedrock in forging a shared solidarity among the population. In contrast, the regime manipulated the existing cleavages in the society to prolong their rule. Moreover, the regime failed to address the existing bifurcation of the state where virtually the hinterland is characterized by statelessness and deprivation as a result of the existing resource scarcity. In fact, it is the existing bifurcation of the state, which later helped rebels to wage a guerrilla war against the military regime until its overthrow.

In the international milieu, the legitimacy of the military regime gradually declined as the regime was criticized for not bringing a solution to the "Pan-Somali" question (see Lewis, 1963) in which Somalis partitioned by colonialism should be reunited again with the Republic. This came against the backdrop of Somalia supporting the Western Somali Liberation Front (WSLF) in 1977 fought with Ethiopia in the Ogaden region. Initially, while the Somali troops made progress in the battlefield, however, they were later defeated by Ethiopia, with the latter receiving military and logistical support from its Russian and Cuban patrons (Lewis, 2008). The defeat, consequently, further damaged the legitimacy of Siyad Barre's military regime. Arguably, the partition of Somali peninsula by colonialism and, concomitantly, Somalia's defeat in the Ogaden region set the ground for the disintegration of the country.

Because of the declining legitimacy of Siyad Barre's regime, some members of the military staged an unsuccessful coup in April 1978. Afterwards, the first rebel group, the Somali Salvation Democratic Front (SSDF) was formed. This was followed by a proliferation of rebel groups including the Somali National Movement (SNM) and the United Somali Congress (UNC), all making Ethiopia their base. The military regime responded by increasing its repressive actions and undertaking a collective punishment against those deemed anti-

regime (Ingiriis, 2016). All this culminated in Siyad Barre's overthrow in 1991 by the rebels in which civil war ensued afterwards.

Essentially, scholars studying the contours of state failure in Somalia are polarized into two camps: the traditionalists and the transformationists. The former, based on the works of I.M. Lewis, holds the view that the clan serves as the basis of the socio-political organization in the Somali context. In this sense, political allegiance is a function of clan connection. This, therefore, hinders the creation of a shared identity at state level. This is because clans are engaged in zero-sum conflict to access state power and resources and this, eventually, mediated the collapse of the Somali state (Lewis, 1961; 1988). The traditionalist thesis sees the Somali conundrum from a cultural perspective and advances the view that the conflictual nature of the clan-based socio-political organization is the root cause of the demise of the Somali state.

The transformationists, on the other hand, criticize the traditionalist's reading of social history as that which is "static" and as such, this makes their analysis of social change "mechanical, linear and simplistic" (Samatar, 1992, p. 628). In contrast, transformationists promote a historical reading of the subject and argue that two factors explain the Somali conundrum; the commercialization of the economy, especially livestock, and the imposition of a foreign state to a decentralized society. In the first, the commercialization of the economy changed the equalitarian nature of Somali society as it engendered the emergence of class. This paved the way for those with accumulated wealth and power to exploit others, a scenario that was not possible in the egalitarian society. In the second, the imposition of a foreign state structure informed the competition for the limited state resources among elites while, at the same, the traditional *Xeer* system, which guided interactions is made redundant. Together, this precipitated the decline of the Somali state.

Of particular importance for this study is the increased salience of the politicization of identity in post-independence Somalia. This is particularly true during both the civilian governments, as well as the military regime of Said Barre. In the former, parties campaigned along clan lines to gain votes thus informing the intersection of politics and identity. Similarly, the military regime manipulated the clan system by rewarding those perceived as supporters of the regime with state power and resources, while punishing those deemed anti-regime. This came against the backdrop of the military regime banning anything related to clannism in the 1970s as this was deemed to be a threat to national identity (Ingiriis, 2016). Eventually, this

mediated the emergence of political identities with conflicting political visions towards state building.

Political identity is by and large a by-product of state formation. This means that political identities are as a result of the design of legal state institutions, which confer different political identities to people given the exclusionary nature of state institutions. As Mamdani (2002, p. 20) explains, "the process of state formation generates political identities that are distinct not only from marked-based identities but also from cultural identities." While political identities overlap with those of cultural identities, however, cultural identities spring from a shared historical commonality including language and practice. On the other hand, political identities are based on a commonality of a shared envisioning of the future. In the end, political identities produce a binary; those that share the same political identity and those that do not. The exclusionary tendency of political identities serves as the basis of political violence.

In the Somali context, how political identity is formed is different from that conceptualized by Mamdani in two ways. Firstly, the creation of political identities in Somalia are not a function of legal prescription by state institutions. Instead, political identities are formed as a result of political activities by governments, as well as the actors who were engaged in the civil war after the collapse of the Somali state in 1991. Secondly, not only are political identities formed as a result of the process of state formation, but also as a by-product of the Somali civil war (Höhne, 2006). Indeed, the civil war was a continuation of the process of state formation with different political identities, albeit one which is characterized by political violence. Most importantly, in the Somali context political identities are underpinned by cultural identities, that is clan, but, at the same time, the former are not bound by the traditional customary system that guides relations among clans. This explains the perpetual zero-sum conflicts among different political identities in Somalia since the collapse of the state.

The emergence of a plurality of political identities intersected with the continuing trend of territorialization. The combination of these two trends gave an impetus to the armed opposition groups' aim to topple the military regime and implement state policies that conform to their political identities. This was done by retreating to neighbouring countries and their ancestral lands within the state to recruit soldiers to fight with the government. Following the toppling of the military regime, the armed opposition groups failed to establish an inclusive state given their conflicting political identities. In contrast, the opposition groups succeeded in

establishing autonomous states in their ancestral homelands. For instance, the SNM movement morphed into the state of Somaliland while that of SSDF morphed into Puntland state.

While droughts happened during this period, however, this did not inform violent conflicts underpinned by the competition for scarce resources. Two reasons explain this; first is the response from the central government that offered assistance to the most affected. This is particularly true during the *Dabadheer* or the "long lasting drought" which happened between the years 1973 and 1975. One of the worst droughts recorded in the history of Somalia, this engendered the displacement of 300,000 people. To help the pastoralists whose livelihoods were shattered by the drought, the Somali government at the time transferred them to agricultural and fishery sectors with investments from the government (Tsui, Rogsdale & Shirwa, 1991). This, therefore, reduced the grievance of those affected and, in turn, the likelihood of violent conflicts. Secondly, the state controlled most parts of the country, and with a strong military, it was able to respond to any resource-based violent clashes on time. What this means is that the state had comparative advantage in the monopoly of means of violence, which thus prevented the metamorphosis of climate-related competition and grievances into violent conflicts.

As a member of multiple political identities that fought for power within Somalia, SSDF members, after the collapse of the Somali state, retreated to their ancestral home and later morphed into "Puntland state of Somalia." This is thanks to a series of conferences including the "community consultative conference" and the "constitutional conference" among traditional elders. The end result was an agreement to form a regional governance structure to address the challenges inherent in state collapse. Significantly, this "bottom-up" approach of state-building was in contrast to the orthodox externally driven "top-down" approach implemented in other parts of Somalia after the state collapse, hence its success (Johnson, 2008). This represents the politicization of geography where territories were imagined as part of their political projects by different entities. This is particularly true between Puntland and Somaliland who both claim Sool and Sanaag regions (see map below). While Puntland still considers itself to be part of Somalia, Somaliland is a secessionist state seeking international recognition. The territorial dispute between the two states has sometimes

Puntland as a state is predicated on "genealogical logic" (Hoehne, 2014). That is, belonging is a function of agnatic lineage whereby those who trace their ancestors to this descent are considered citizens. The crux of this state, therefore, are traditional elders who set

the foundation of the state during its establishment and select parliamentarians to-date. Furthermore, traditional elders yield great powers. As Gundel (2006, p. 22) pointedly explains, "governmental structures are established and appointed by the traditional elders and in that sense are under them." By inference, therefore, there is a "plurality of power centres" (Albrecht, 2018). This is so because elected politicians are not the sole decision-makers of critical issues of the state. Rather, traditional elders are consulted, sometimes even making decisions on paramount state issues. Arguably, this is as a result of the legitimacy traditional elders enjoy among Puntland denizens and their role of selecting members of the parliament who then elect the President.

As an indirect consequence of institutional state design, the state of Puntland has produced a perception of exclusion by many who believe that the state has been dominated by a few clans. Termed as "ethno-hegemony" (Menkhaus & Adawe, 2018), this means that a few clans dominate state power at the expense of others. It can be argued that this is the case in Puntland where all the elected five presidents' to-date hailed from this same clan. This informs a multiplicity of political identities within the state where clans who perceive that they are excluded from the state chart a new parallel political vision to be implemented in their territories. This is the case for the declared but not materialised Maakhir, Khaatumo and Ras Caseyr states (Hoehne, 2016).

Map 1: Map of Somalia
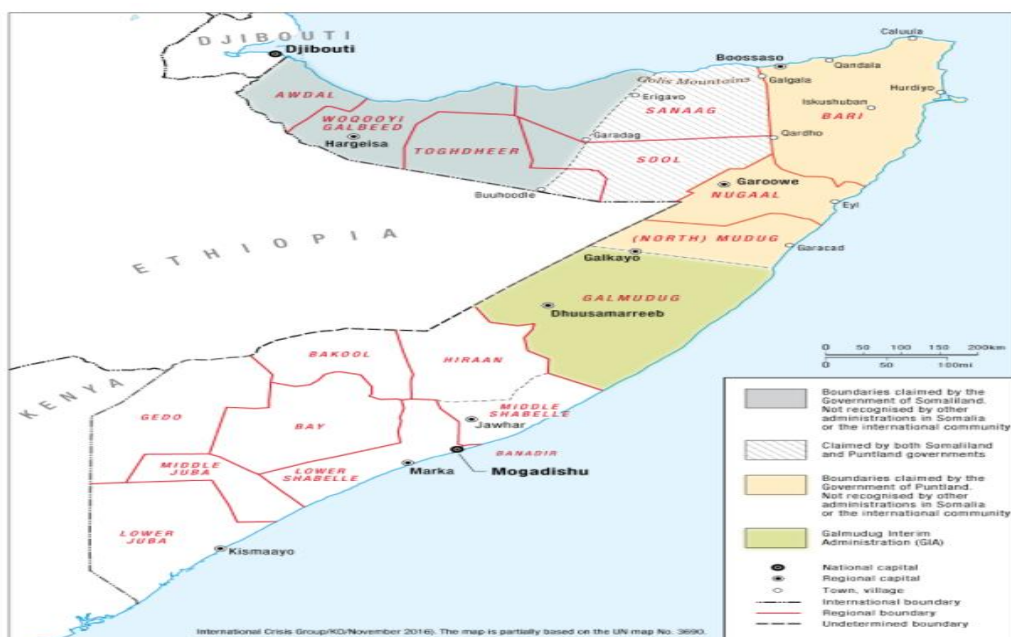
Source: Crisis Group (2016)

The foregoing dynamics has two implications for the state. First, this underpins an idea of the state deficit, one of the most crucial components of a state that is critical for the creation of a unified identity, a sense of purpose and, in turn, solidarity among its people (Buzan, 1983). In Puntland, leaders are perceived to represent the interests of their respective clans and not necessarily the collective interest of the state. As such, state institutions and leaders are "clannised" provided that it is perceived they promote narrow interests of certain groups, hence affecting their legitimacy. Secondly, and related to the first, the state is a competition and accumulation ground for wealth and power among clan elites. For, the state is characterized by a patronage system and loyalty is bought, hence a "political market" where resources are key to gain allegiance and political power (Waal, 2015).

Concomitantly, the lack of an idea of the state also affects the security sector. Since sixty percent of Puntland's budget is spent on security, this presents an opportunity for resource mobilization as well as power. To this end, elites and traditional clan elders strive to have the maximum number of personnel in the security establishment. In light of this, a security sector reform in 2014 to reduce the approximately ten thousand security personnel proved to be unsuccessful due to inherent complex clan dynamics involved. This highlights the plurality of power centres in the region (Albrecht, 2018). Thus, this hampers the efficient use of resources and in turn state consolidation efforts that are critical in light of the myriad of challenges confronting Puntland state including terrorist groups such as Al-Shabaab and ISIS.

The preceding comes against the backdrop of climate change manifested in increased droughts in Puntland. On average, from 2008 droughts are experienced every two or three years (Adano & Daudi, 2012). Studies such as those of Eklöw & Krampe (2019) and Mystadt & Ecker (2014) have pointed out that there is increased organized crime in Puntland as the region served as a base for piracy groups, as well as terrorist networks including Al-Shabaab and IS. This, according to them, is attributed to worsening livelihood conditions as result of climate change manifested in increased frequency of droughts. For instance, Mystadt & Ecker (2014) found a strong relationship between droughts and conflict using livestock prices as a proxy. More concretely, the authors found that one standard deviation increase in the intensity and duration of the former increases the likelihood of the latter by 62 percent. This study argues that the nexus between climate change and violent conflict in Puntland can be best understood if it is placed in context by appreciating the historical trend of territorialization and the politicization of identity. This is accentuated by the contested monopoly of the means of violence within the Puntland state with non-state actors as well as clans challenging the state.

Prior to the state collapse, the frequency of droughts was lower compared to the current trend while, at the same time, the state response as well as its monopoly of means of violence prevented the resultant grievances from morphing into violent conflicts.

2.3 Climate Change and Conflict in Puntland: A Conceptual Analysis

Geographically, Puntland is a semi-arid region characterized by harsh weather and low rainfall. Nearly sixty-seven percent of its population are nomadic pastoralists who live in rural areas, and whose livelihood is dependent on livestock, mainly camel, goat and sheep. Most significantly, livestock contributes to forty percent of Puntland's GDP and employs more than sixty percent of the population (Maystadt & Ecker, 2014). In essence, livestock is the backbone of Puntland's economy.

Puntland's authority is confined to cities and is unable to broadcast its power to the hinterland, thus a disconnect between the two, and state absence in the latter. This is predicated on three factors; firstly, there is low population density in the hinterland as people practice nomadic mode of life and do not permanently settle in one place. Rather, they traverse from one place to another in search of pasture and water for their livestock. As such, it proves difficult for the state to project its power (Herbst, 2014).

Secondly, there is lack of infrastructure, mainly roads that connect the centres of power of the state and its hinterland. This is underpinned by decades of state failure. As a result, the state is not able to mobilize its resources and project its authority in faraway areas. The foregoing presents an opportunity for anti-state elements to make this space as their operating grounds. Not surprisingly, therefore, terrorist groups now operate in Puntland as their sanctuary space. Lastly, in the hinterland, people are organized along clan lines. Organization at clan level means resistance to other forms of social control including that of the state. For, "social control rests on the organizational ability to deliver key components for the individuals' strategies of survival" (Migdal, 1988, p. 27), which Puntland state failed to do, hence resistance to its control. In other words, "state institutions are considerably weaker than society" (Menkhaus, 2014, p.162).

Springing from the preceding is a lack of higher authority that controls the behaviour of individuals and groups in the hinterland, thus this informs anarchy. This in turn leads to a "security dilemma" where individuals and groups are constantly concerned about predation from others on them and their livestock, hence a "self-help" system where they must acquire

the means to defend themselves and ensure their survival. However, this also increases the insecurity of others. Thus, as Herz (1950) notes, "since none can never feel entirely secure in such a world of competing units, power competition ensues, and the vicious circle of security and accumulation is on" (p. 157).

Concomitantly, members of a clan, specifically the "Dia-paying group," agree to defend each other in the anarchical nature they live in, and also pay and receive any compensation member(s) of their group are liable as a result of their actions. These actions include homicide, and injuries. Crucially, compensation is paid or received through livestock, and failure to pay this is a declaration of war. Central to all this is customary law known as "*Xeer*" which is mutual security and defence agreement among members of a clan, and sometimes with other clans, as well. As (Lewis, 1961, p. 162) explains, *Xeer* "denotes a body of explicitly formulated obligations, rights, and duties. It binds people of the same treaty (*heer*) together in relation to internal delicts and defines their collective responsibility in external relations with others." The "*Xeer*" is unwritten and is passed from one generation to another orally. It defines the relations between members of a clan but sometimes also extends to others and defines resource sharing among them including water and pasture among their respective pastoralists (Gundel, 2006). Put differently, the "*Xeer*" serves as the social contract among members of a clan and guides their relations and those with others.

Climate change, manifested through increased frequency of droughts, comes in against the backdrop of the foregoing dynamics. And it has two implications: first, as a result of scarce pasture and water due to increased droughts, this affects livestock, the main livelihood of the majority of people in Puntland. Consequently, this affects their income and also that of the state since livestock export is one the main sources of income for the state. Secondly, this also affects the "*Xeer*" that binds clan members together, and, in turn, stability as compensation is paid through livestock. As drought engenders decreased livestock, members of a clan will not be able to pay to offset the actions committed by their members, and this may mediate a reciprocal retaliatory action from the clan of the victim(s).

Important here is the concept of relative deprivation, that is, individual or groups' perceived discrepancy between what they believe is their right to have in terms of life's goods and conditions and what they actually have. As a result, this discrepancy breeds frustration among individuals and groups and, in turn, is likely to lead to aggression. As Gurr (1970) in his book "*Why men rebel*" notes, "the greater the frustration, the greater the quantity of

aggression against the source of frustration." In other words, "the greater the intensity of deprivation, the greater the magnitude of violence" (p. 9). Relative deprivation, therefore, is likely to lead to violence as deprived people view the use of violence as a rightful means to gain their entitled life conditions.

Specifically, "decremental relative deprivation" is more applicable here as it relates to decreasing life conditions relative to no change in value expectations. As climate change negatively affects the livelihoods of people and worsens their life conditions, this breeds "decremental relative deprivation." Moreover, this is mostly common in traditional societies whose livelihood is dependent on climate. Thus, this breeds frustration and may lead to collective violence as the opportunity cost for engaging in such violence is relatively low and people have nothing to lose (Gurr, 1970). Concurrently, the foregoing is abetted by the weakening of the customary law "*Xeer*" as a conflict resolution mechanism. Underpinning this is the worsening livelihood conditions since livestock is crucial in settling disputes. In addition, as the resource pie decreases, this mediates competition for the scarce resources and may also lead to violent conflict.

2.4   Conclusion

This chapter did a historical contextualization of the nexus between the change of climate and violent conflict in Puntland. To this end, the chapter presented two inter-related trends that are crucial to fully understand the nexus; the increased salience of territorialization and the politicization of identity. The former, which was introduced during the colonial period, refers to the imaging of space by specific group(s) as their own territory. The latter refers to the emergence of political identities as a "consequence of how power is organized" (Mamdani, 2002, p. 22). In Puntland, these two trends intersect with climate change-induced scarcity of resources as a result of climate change while there is inherent state weakness with limited capacity to address the challenge of climate change as well as ensure security.

Put more bluntly, Puntland as Menkhaus (2014) posits is "a functional failed state." Functional as it is able to maintain "some degree of public order and stability and have seen economic recovery in their area of control." However, the state failed to move from a clan-based political power sharing dominated by powerful clan elites who use it as an avenue for resource and power accumulation. Similarly, the state failed to address the inherent bifurcation of the state where large swaths of territory is characterized by statelessness, the proliferation

of arms and, in turn, a security dilemma. In other words, Puntland is a failed state because "government capacity is weak, budgets modest, corruption high and institutionalization low" (p. 164). In this light, the increased salience of territorialization and the politicization of identity, as well as inherent state weakness are critical factors to fully appreciate the climate change-conflict nexus in Puntland.

CHAPTER THREE
CLIMATE CHANGE-CONFLICT NEXUS IN PUNTLAND: EXPLORING THE FACTORS

3.0   Introduction

With a growing quantitative academic literature that examine the implications of the change of climate on violent conflicts, some find empirical evidence suggesting that climate change increases violent conflicts (Burke, Miguel, Satyanath, Dykema, & Lobell, 2009), others, on the other hand, argue that there is no ample empirical evidence supporting this claim (Buhaug, 2010). In view of the lack of consensus among scholars, (Buhaug, 2015, p. 269) argues that quantitative studies on the relationship between the change of climate and violent conflict has "produced more confusion than knowledge."

The foregoing is so because the relationship between the change of climate and conflict is not a "simple stimulus-response relationship." That is, climate change does not necessarily always lead to conflict. Rather, since conflict is a social phenomena, the role of agency such as individuals and that of institutions are paramount and are crucial determinants of this link (Seter, 2016). Therefore, one should explore the causal mechanisms that translate the change of climate into violent conflict, taking the context under study into consideration (Buhuag, 2015).

Cognizant of the above, this chapter responds to the first question of the research: what factors explain the nexus between climate change and violent conflict in Puntland state of Somalia? The objective of the chapter is to explore the factors that explain the nexus between climate change and conflict in Puntland. To guide the inquiry, the chapter uses Homer-Dixon's environmental scarcity and violent conflict theory and, in so doing, takes a holistic approach by appreciating the demand, supply and structural sides of the nexus. Over and above this, the contextual characteristics are also considered including economic, social and political factors. Underlying this is the assumption that the change of climate does not directly cause conflicts; rather it interacts with other contextual factors to produce conflicts (Homer-Dixon, 1999).

This chapter argues that climate change engenders low-level violent conflicts among clans in Puntland who compete for scarce resources including pasture and water provided that there is a history of conflict among them; however, it is the exploitation of the existing grievances by actors including elites and militant groups that informs the politicization and the subsequent militarization of climate-induced scarcity of resources. This, subsequently,

translates the effects of climate change into violent conflict. As such, climate change provides an opportunity for actors to advance their selfish interests, as well as to ensure their survival .

The chapter is structured into the following sections; the first section explores socio-demographic factors, that is, how societal characteristics and population growth inform the nexus between the change of climate and violent conflict in Puntland. The second section outlines economic factors and how climate change mediated economic malaise reduces the opportunity cost for participating in violent conflict. In the third section, political factors that explain the nexus are presented, followed by a conclusion of the chapter.

3.1   Socio-Demographic Factors

3.1. (a)   Increased Population

While there are no official yearly statistics on the rate of population increase in Puntland, , it is estimated that the population in Puntland is approximately 4,334,633 as per the last population survey conducted in 2016. 59 percent of the total population live in rural areas, with 39 percent of this practising nomadic mode of life, while 38 percent live in urban centres (Puntland Department of Statistics, 2019). Additionally, the population is estimated to be increasing at a rate of 3 percent per year (ILO, 2015). Noteworthy is that since the majority of the population live in rural areas, a large share of the said population growth is experienced here.

Generally, population increase exerts pressure on the environment as this means more demand for resources and, in turn, environmental degradation thus accelerating climate change (Raleigh & Urdal, 2007). Simultaneously, climate change causes scarcity of resources which may animate competition and may lead to violent conflict. Research shows that population growth without attendant increase in the resource pie may lead to resource-based conflicts (Acemoglu, Fergusson, & Johnson, 2020). In fact, a 5 percent increase in population is said to cause an increase of six percentage points in civil conflict while also increasing the likelihood of conflict onset by three percentage points in sub-Saharan Africa (Brückner, 2010).

As Malthus (1978) notes the increase of population has caused strain among the society, as the human increase is not matched by that of natural resources. While the former grows exponentially, the latter grows linearly. This mismatch thus disrupts the existing equilibrium. Hence, this engenders a competition for land, as well as for the scarce resources available,

which may lead to violent conflict. In Iskushuban district, for example, there is a conflict between those cutting trees to produce charcoal to earn a living and pastoralists in the area whose livestock depend on these trees (PDRC & Interpeace, 2015). More importantly, the increase of population informs youth bulge, but with no economic opportunities available, this breeds discontentment in turn reducing the opportunity cost for participating in violent conflict.

In fact, more than 75 percent of Puntland's population are under the age of 30 (Puntland Department of Statistics, 2020), with more than 67 percent of this unemployed (PDRC & Interpeace, 2015). According to Urdal (2004), the combination of youth bulges and poor economic performance increase the likelihood of internal conflict for states. This is underpinned by relative deprivation as a result of lack of economic opportunities given the high concentration of labor in the market and limited job opportunities. Consequently, this spawns grievances among the youth making them susceptible to engage in violent conflicts. As a police officer interviewed in Garowe told the researcher of this study:

> Given the reduction of livestock in rural areas as a result of recurring droughts and lack of job opportunities in towns, youth are left but to join state security, militia groups or migrate to other countries[2]."

In any case, the increase of population does not invariably cause conflict; instead, this intersects with favourable social, economic and political factors thereby leading to violent conflict. But the increase of the population without attendant increase in the resource pie may engender competition and thus cause social strain which more eventually morph into violent conflict.

3.1 (b).   Weakened Xeer System

In pre-colonial times and by extension in the post-independence period, Somalis, as other Africans, practiced indigenous customary law, known as *Xeer*, to guide human relations as well as serve as a conflict resolution mechanism. By definition, *Xeer,* enacted by "*Odayaal*" and "*wax garad*" (meaning elders and wise men, respectively), are unwritten rules and regulations that guide inter and intra-clan relationships such as marriage, resource sharing as well as peace and war (Abdille, 2012). Put differently, *Xeer*, a blend of traditional and Sharia law, is a social contract that holds people and communities together and guides their

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[2] A police officer interviewed in Garowe (November 2020)

relationship. As Lewis (1961, p. 162) defines, *Xeer* "denotes a body of explicitly formulated obligations, rights and duties. It binds people of the same treaty (*heer*) together in relation to internal delicts and defines their collective responsibility in external relations with other groups," Significantly, *Xeer* gained more saliency after the collapse of the state in Somalia thus replacing the defunct secular law. Indeed, this is more so in the peripheral areas, which are dominated by pastoralists characterized by total state absence. Accordingly, the practice of *Xeer* is termed as a "pastoral democracy." As such, *Xeer* serves as a source of order and security in a stateless and anarchical space. As Menkhaus (2000, p. 186) notes, *Xeer* "provide(s) a certain level of predictability, confidence building, and cooperation in an otherwise anarchic environment." Of note is that the issues arbitrated by *Xeer* can be classified into two: *dhiig* and *dhaqan* (blood and civil matters, respectively). The former relates to killing or injury, while the latter relates to family issues or disputes on property (Abdille, 2012).

In view of the state weakness, people are organized at clan-level, specifically the most stable unit, which is the "*mag or diya*-paying" group. That is, a lineage group that collectively pays and receives blood compensation when one of their members commits a crime or the same is perpetrated against one of them, respectively. In most cases, blood compensation is paid using livestock where 100 camels are paid for the killing of a man and 50 camels for a woman. Of course, this is because since the majority of the population lives in rural areas, the only asset at their disposal is livestock. In effect, blood compensation serves as an olive branch to the clan of the victim and increases the prospect of peace. However, failure to do so is a declaration of war and may set the pace for a perpetual clan revenge killing (Lewis, 1961; Menkhaus, 2000). Similarly, civil matters such as issues related to marriage, property-related issues, among others, are adjudicated by traditional elders and the parties involved present their cases before the jury. Subsequently, the jury makes a decision based on the *Xeer* system. The actor who is found liable is ordered to pay fines, either in form of livestock or cash, to the victim.

The majority of the population in Puntland depend on customary law for the adjudication of disputes. This is as a result of two reasons; firstly, secular law is confined to urban areas and does not reach the hinterland, where the majority of the population lives. Secondly, the court system in Puntland is characterized by rampant corruption and thus this affects the trust of people in the system. Together, this positions the customary law as the most accessible and efficient legal system (PDRC & Interpeace, 2015). Yet the customary law, *Xeer*, is weakened as a result of the climate change-induced recurring droughts that affect livestock, an integral part of the *Xeer* system. Most significantly, the reduction of camels (see Figure 1)

means that clans are not able to pay blood compensation to offset crimes perpetrated by their member(s) against other clans.

As a result, the inability to pay compensation is likely to engender reciprocal incursions by the clan of the victim, which may in turn lead to perpetual revenge killings. This explains the perpetuation of resource-based conflicts in Puntland. According to a study by PDRC & Interpeace (2015), there were five ongoing clan conflicts in Puntland at the time that are based on the competition for resources. Most importantly, police records show the increasing deaths as a result of clan conflicts. More concretely, while the number of deaths as a result of clan conflicts was 163 in the year 2011, this has increased to 643 in 2016 (see Table 1). This represents a significant increase in the number of deaths in just four years. In a similar vein, traditional elders interviewed for this research enunciated that climate change-induced droughts have hampered their task of resolving disputes among clans. As a result, this has increased tensions among clans:

> The reduction of livestock, camels in particular, as a result of the increased frequency of droughts has affected the timely payment of blood compensation by clans. Therefore, the clan of the deceased may undertake revenge killings and this increases clan conflicts.[3]

Table 1: Reported criminal incidents in Puntland

Incident(s)	2011	2012	2013	2014
Rape	174	32	131	157
Murder	257	301	176	124
Drug related crimes	58	57	323	347
Robbery and theft	1745	409	1052	1902
Death toll of clan conflicts	163	100	454	643
Total	**2397**	**899**	**2136**	**3173**

Source: PRDRC and Interpeace

In a nutshell, the *Xeer* system served as a crucial mechanism to solve disputes among clans in Puntland in light of the gap left by the state as a result of its weakness. However, the system is challenged by the increased frequency of droughts as a result of the changing climate, which in turn affects livestock. Hence, clans find it difficult to pay blood compensation on time and this may serve as the *casus belli* for revenge killings by the clan of the deceased.

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[3] Traditional elder interviewed in Garowe (December, 2020).

Accordingly, this is likely to increase clan conflicts and this is evidenced by the increased deaths as a result of clan conflicts in Puntland, which increased from 163 in the year 2011 to 643 in 2014. This comes against the backdrop of increased saliency of the *Xeer* system given the increase in resource-based disputes driven by climate change, as well as organized crime in the region.

3.1. (c)   Migration

Existing academic research on the nexus between climate change-induced migration and violent conflict posits that migration carries the potential of engendering violent conflict in the receiving areas (see Reuveny, 2007; Burrows & Kinney, 2016). However, migration does not directly cause conflict; rather it interacts with the existing economic, social and political dynamics of the receiving areas. Importantly, migration is likely to cause conflict when divergent identities and interests exist between migrants and the host community. The former relates to the issues of competition for scarce resources, while the latter is about the fear of the erosion of homogenous identity of the receiving area including religion and/or ethnicity (Brzoska & Fröhlich, 2016).

Similarly, Reuveny (2007) argues that migration as a result of the changing climate is likely to be experienced in least developed countries given that the majority of the people depend on climate-sensitive livelihoods. Yet migration can lead to violent conflict when two or more of identified channels exist. These channels include competition for scarce resources and job opportunities, as well as pre-existing ethnic animosity, which may in turn lead to reduced trust. Thus, in effect, the combination of these channels increases the likelihood of violent conflict.

In line with the above, this study finds that migration as a result of climate change-induced droughts in Puntland does not invariably cause violent conflicts in the receiving areas. Instead, it sometimes leads to improved cooperation and peace among communities (Ide & Scheffran, 2014). Two reasons explain this; firstly, the recurring droughts create "a community of sufferers" whereby communities develop a sense of mutual identity and, in turn, solidarity as climate change-induced disasters transcend their differences and affect them all. This, indeed, overweighs their existing grievances hence the shared identity. However, this diminishes as the recovery from the disaster progresses. As Fritz (1996, p.30) notes, the

developed solidarity "wanes and begins to disintegrate, as people return to normal pursuits and the process of social differentiation begins to manifest itself."

Secondly, migrants' expected duration of stay is also a crucial determinant of migrants and host communities' peaceful coexistence. From this perspective, given that climate change-induced internal migration is short-term, and people will return to their homes when the situation improves, this serves as a deterrent against the eruption of violent conflicts. A case-in-point is the migration, termed as the "coming together," in 2017 to the Bari region of Puntland from different parts of Somalia and as far as the Somali region of Ethiopia, as a result of a severe drought that hit the region termed as "Sima" meaning "the great equalizer." Respondents interviewed for this research in Iskushuban district indicated that communities as well as the local government have put great emphasis on welcoming and the provision of the necessary support to the migrants who sought pasture and water for their livestock. Accordingly, this improves inter-community relations and engenders a mutual sense of solidarity in turn informing peaceful relations.

However, the politicization of migrants by elites and/or actors may cause tension among the migrants and the host community in turn leading to violent conflict. This happens when migrants are presented to be a threat to the collective identity of the host community as well as their geographical homeland by elites and/or actors. Core here is the use of authority and available communication channels to spread a discourse that migrants pose a threat to the host community (Jesse, 2014). For instance, in 2017 migrants from Galmudug state of Somalia crossed over to Puntland as a result of a severe drought. This came against the backdrop of a territorial dispute between the two states. A discourse, therefore, was spread that international partners, represented by the UN, will send a fact-finding mission. Thus, the migrants are a covert ploy to show the international partners that the territory under contestation is in fact inhibited by Galmudug denizens. All in all, this has engendered tension between migrants and the host community in turn prompting the former to return to their homes.

Important to note also is the political economy surrounding the humanitarian assistance provided to the displaced people. For controlling aid is "central to power in Somalia" (Jaspars, Adan, & Majid, 2020, p. 1). Displaced people whose livelihoods are shuttered by droughts move to towns as IDPs, however, given that humanitarian aid is dominated by gatekeepers, local authorities, and NGOs, access to aid is a function of having connections with these groups. Hence, the most vulnerable people may be excluded from receiving the assistance

while, in contrast, well-off individuals may benefit from the aid. As such, this increases the relative deprivation of the displaced people and may sometimes cause conflict in the IDP camps. IDPs interviewed for this research in Garowe indicated that the frustration as a result of their exclusion from humanitarian assistance sometimes leads to violent conflict as they try to disrupt the registration of beneficiaries for the assistance.

In sum, while existing research focuses on inter-state migration in explaining the nexus between the change of climate and conflict, little attention has been paid to intra-state migration and its potentiality of engendering peace among communities given the formed shared identity as "a community of sufferers" due to the recurring droughts that affects them all. At the same time, however, the politicization of migrants by elites and/or actors may sometimes cause conflict as the migrants are presented, either objectively or subjectively, as a threat to the host community. Moreover, the exclusion of vulnerable displaced people from the humanitarian assistance in light of the corruption involved in the access of aid increases the deprivation of the displaced people and sometimes causes conflict in IDP settings.

3.2   Economic Factors

3.2. (a)   Worsened Livelihood Conditions

As mentioned elsewhere (see p. 4) , two-thirds of the population in Puntland depend on pastoralism as their source of livelihood. At the same time, livestock exports serve as the major source of income for the state. But given the increased frequency of droughts in the region, this has affected the income of households as well as that of the state. In fact, it is estimated that the 2017 drought that hit the region caused the deaths of between 25 and 75 percent of the total livestock ((FEWS NET & FSNAU, 2018). In line with this, available data from Puntland Department of Statistics shows the decrease in the number of livestock during recent drought periods. As shown in the below graph, there is a steep decline in the number of livestock, with this more pronounced during the period between 2013 and 2017 in which the region witnessed devastating droughts. Moreover, the data shows that camels and cattle are the most affected, with more than half of these wiped out as a result of the recurring droughts.

Figure 1: Livestock population in Puntland (2011-2019)
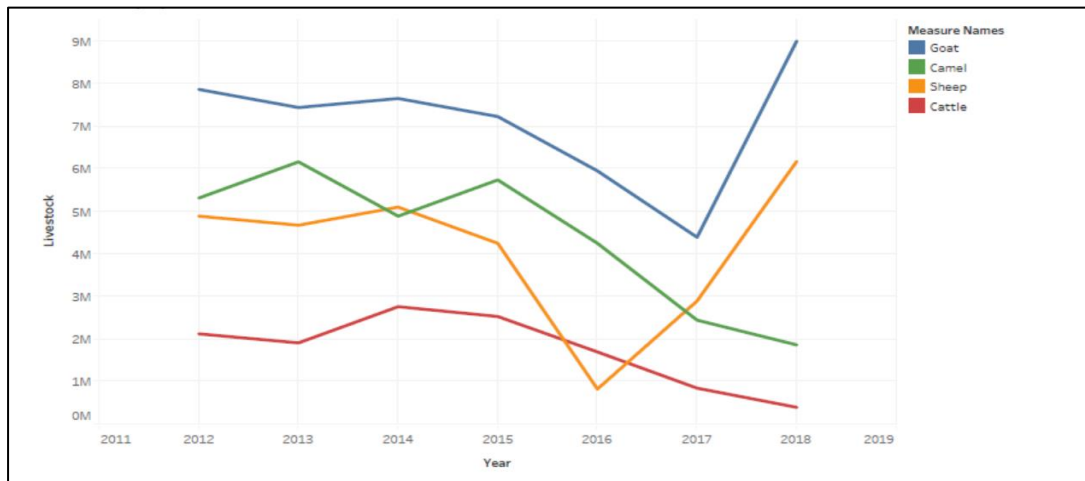
Studies have shown that income has a significant relationship with the occurrence of violent conflicts (see Collier et al. 2003; Collier & Hoffler, 1998). According to Collier & Hoeffler (1998), income is one of the economic variables that explain the occurrence of violent conflicts. This is underpinned by the reduced opportunity cost given that for low-income people, the net benefit of engaging in violent conflict outweighs the foregone income. In light of the preceding, individuals with low income can easily be recruited to participate in violent conflicts in exchange for financial benefits. Taken together, income is a crucial determinant of individual participation in violent conflicts.

In line with the above, Maystadt and Ecker (2014) found a strong relationship between livestock price shocks as a result of climate change-induced droughts and violent conflicts in Somalia. This is so because during droughts, herders tend to sell some of their livestock to buy fodder and water. But given the large supply of livestock in the market as a hedge against the negative impacts of drought, this pushes prices downwards. Thus, this affects the income of pastoralists and in turn lowers the opportunity cost for participating in violent conflict and this ultimately leads to "poverty-conflict trap" (see Collier, et al., 2013). In fact, the study found that a one point increase of standard deviation in the intensity of drought as well as its length leads to a 62 percent increase in the likelihood of conflict.

In a similar vein, the food security situation is worsening in the region as a result of increased frequency of droughts. For instance, in 2017 when a severe drought hit the region, the number of food insecure people either in crisis or emergency phase have increased dramatically. More concretely, the number of people in crisis in Bari, Nugal and Mudug regions

were 80, 000, 73,000 and 221,000, respectively, whereas those in emergency were 25,000, 34,000 and 54,000, respectively (FSNAU, 2017). Accordingly, this evidence shows the worsening livelihood conditions in the region as a result of climate change-induced increase of droughts.

The worsening of livelihoods as a result of climate change affects conflict dynamics in Puntland in three ways; firstly, given the deterioration of livelihood conditions as a result of climate change, this leads to "decremental relative deprivation." That is, when value capabilities in terms of life conditions declines while value expectations remain the same (Gurr, 1971). Put differently, this happens when the livelihood conditions deteriorate with no hopes that this may improve in future. Accordingly, this may lead to frustration and ultimately to violent conflict:

> Poverty is the source of every evil. When people become poor as frequently recurring droughts lead to the loss of their livestock, they are susceptible to engage in violent conflicts or in the predation of the resources of others to sustain their livelihoods.[4]

Secondly, state revenue dwindles as livestock exports, the main source of income for the state, is affected as a result of climate change-induced droughts. Thus, the ability of the state to project power is reduced in turn informing a vacuum likely leading to chaos. Indeed, this presents an opportunity of exploitation for non-state actors competing to replace the state. Finally, state legitimacy is reduced as the state is not able to address the needs of those whose livelihoods are shattered by the change of climate. For state legitimacy is a function of the "discrepancy between people's expectations about the kinds of participation and security values their regimes should provide and those they actually provide" (Gurr, 1971, p. 187). And since climate change increases this discrepancy, this may in turn lead to increased frustration and is likely to increase the likelihood of citizens to engage in political violence against the state. In sum, the worsening of livelihoods as a result of the change of climate increases the likelihood of individuals to participate in violent conflicts as well as weakens the state while at the same time reducing its legitimacy. Taken together, this increases state fragility while at the same time reducing the opportunity cost of participating in violent conflicts. As a respondent in Ballibusle village under Jariban district notes:

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[4] Pastoralist interviewed in Jariban district (November, 2020).

"We don't get development opportunities despite the fact that we're the biggest taxpayers, because we produce livestock (...) our children do not go to schools, animals don't get enough water. When our goats and sheep begin to die in the dry season the youth will go into the towns to become thieves" (PDRC & Interpeace, 2010).

3.2 (b)   Economic Distance Decay

Distance decay, a concept borrowed from Geography, holds that the relationship between things is a function of distance. That is, the more things move apart in terms of distance, the more their relationship weakens. As Tobler (1970, p.236) notes, "everything is related to everything, but near things are more related than distant things." However, distance decay is not only in terms of distance as far as the relationship between the state and its population is concerned. Instead, as Ngunyi & Katumanga (2012) conceptualize, distance decay can happen in economic, political and social milieus. Thus, as the distance decay increases, this gives way to the instrumentalization of private violence, in lieu of state violence, to advance selfish interests as well as to ensure survival from the predation of others. Consequently, this informs the shift from "monopoly" to the "oligopoly" of means of violence, which, in turn, is detrimental to state security as militia groups proliferate given the increase of demand for their services.

In the economic dimension in Puntland, while the government taxes its citizenry, more so the peripheral pastoral communities whose exported livestock the government earns most income, however, the government offers limited or perhaps non-existent services in return. This is as a result of corruption that permeates the system of the state. In other words, there exists the "corruption of the body politic" (Dobel, 1978). In fact, political elites contest to capture state power through corrupt practices and use it as an avenue to mobilize wealth. Together, this reduces the legitimacy of the state and, in turn, increases the likelihood of political violence as the relative deprivation of citizens' increase.

This does not only inform economic distance decay between the state and society but one that relates to how the state is perceived by the society. Those most affected by climate change-induced droughts will see the state as a burden, which only taxes them with no services in return. The lack of support response by the state to alleviate the suffering caused by the recurring droughts permeates grievances against the state. This is particularly true as people view the state as an instrument of mobilizing money by state politicians rather than advancing their interests. This view towards the state is further pronounced as the livelihoods of many

households is shattered by the increasing droughts. In fact, Puntland now hosts 557,000 IDPs that constitutes twenty-one percent of the population (UNHCR, 2020), with the majority of them displaced by the recurrent droughts.

This has two implications; first, the perceived grievance towards the state increases the likelihood of people to join armed groups against the state. This is more so for transnational terrorist groups that offer financial benefits to their recruits. This is underpinned by the reduced opportunity cost for participating in violent conflicts. Secondly, this increases the decremental relative deprivation of those affected given their worsening of livelihoods and a reduced hope for improvement in the future. This further pronounces frustrations felt by those affected and increased their likelihood of participating in violent conflicts. With limited water and pasture as a result of the increased frequency of droughts, this means there is an increased likelihood of violent conflict as a result of the competition for these scarce resources.

3.3 Political Factors
3.3. (a) Political Distance Decay

In Puntland, there is political decay as the clan system is the foundation of politics of the state. Implicitly, this means "institutions are weak and social forces are strong" (Huntington, 1965, p. 416). Thus, the implication is that there is no unified identity. Rather, there is a plurality of identities within the state and, as a result, this informs a spirited competition among different groups for power and resources. In addition, since institutionalization of the political system is low, this lowers the trust of the people in these institutions. For instance, the security sector of Puntland enjoys low trust among the people thanks to its low capacity as a result of poor training and payment. In fact, even government officials and politicians use clan militia instead of state security apparatus to provide protection. As a traditional elder interviewed in Bosaaso observes:

> "Fifty ministers and over 60 MPs are escorted by their tribal militiamen at the expense of public security" (PDRC & Interpeace, 2015).

At the same time, the state is confined to urban areas while the vast majority of the hinterland is characterized by a security dilemma as a result of state absence. Obviously, given the resulting anarchy, people in the hinterland are left but to arm themselves and protect their security. Of course, this has a domino effect as all communities in the hinterland need to arm themselves to prevent the predation of their resources from others. Moreover, the hinterland

serves as a sanctuary space for militant groups to organize as well as plan for strategic attacks, thus endangering state security.

The nature of state institutional design produces a plurality of political identities, which further drives the political distance decay. More specifically, the genealogical logic that underpins the state mediates centre-periphery politics, where some clans are excluded from state power and the distribution of resources. This causes those who perceive that they are excluded from the state to chart their own parallel state visions. Significant for the existing political identities is the control of territory as this is fundamental for any political project. This means that, besides the competition for resources as an issue of survival, there is another dimension, which relates to the politicization of geography. As a characteristic of political identities, there engenders a binary zero-sum conflict which is two-pronged and are inter-related; the competition for resources, as well as an imagined political geography.

This comes against the backdrop of the increased social fragmentation as a result of the politicization of the clan in Puntland. This is so because the clan influences the level of economic and political participation within the state. Indeed, as clans vie for power and resources, this produces winners and losers. In this case, while the former group is status-quo oriented, the latter group is tempted to rebel and strive to create a reality of their own worldview in which they are the beneficiaries. This informs what Deng (1995) calls "a war of visions", and increases the prospects of identity conflicts. Underpinning this is the existence of horizontal inequalities, that is, inequality, perceived or real, that exists between identity groups. This can be manifested in economic, social, political and cultural spheres. Thus, this increases grievances within the group and in turn creates a conducive environment for political mobilization, which may ultimately lead to violent identity conflicts (Langer & Stewart, 2014).

In sum, political distance decay exists in Puntland. The implication, therefore, is weakened intra-society, as well as state-society relations. In the former, this means increased tensions among clans, which may sometimes lead to violent conflict. While, on the other hand, in the latter this means a reduced physical and mental reach of the state and in turn its legitimacy. Together, this informs the increased importance of private violence as a means of protection and in resource mobilization. In this sense, the formation of militia groups develops an economic dimension. Not surprisingly, Al-Shabaab and ISIS militant groups currently operate a parallel state in Puntland collecting taxes from the people. Essentially, climate change

comes against this background and serves as a "threat multiplier" that accentuates existing "trends, tensions and instability" (Hoste & Vlassenroot, 2009, p. 142).

3.3. (b) History of Conflict

In Puntland, there is a historical resource-based conflict among clans in which they fight over pasture and water as well as engage in livestock rustling. In fact, the current President of Puntland, Said Abdullahi Deni, noted in the Puntland Environment and Climate Change Conference held in January 2021 that ninety percent of conflicts in the region are resource-based. Thus, these conflicts increase inter-clan hostilities and culminate in "negative othering" where the use of force is justified, and legitimate (Ide, 2015). Indeed, as Kaufman (2006) notes, violent conflict is justified when a group's mythology holds that another group is a hostile enemy, more so when the latter is viewed to be an existential threat. Simply put, the probability of violent conflict is a function of the level of hostility. These myths are based on historical and cultural discourses that end up to be a given. Group mythology is based on subjective emotions rather than objective calculations. Thus, this "emotionally-laden" hostility provides politicians and other actors a conducive environment for manipulation to justify a conflict of interest as that which promotes the interests and worth of the group. Clearly, the entrenched discourse within a group vis-à-vis others determines the level of manipulation by politicians and other actors, as well as the intensity of the violent conflict.

Historical clan-based conflicts in Puntland can be categorized into two; those between clans within the state and those with other clans outside the state. Arguably, the hostility and, in turn, the intensity of violent conflicts is lower in the former compared to the latter. Underlying this is the existing discourse that informs the enmity towards other groups. In the former case, the socialization among clans within the state through, for instance, economic, political and social spheres create a narrative of less-enmity. As Kaufman (2019, p. 614) argues, "war should be less likely as organizational and social ties binding potential disputants together become stronger." On the other hand, the latter is characterized by strong mutual hostilities. This is underpinned by historical rivalry among these clans and established discourse of hostility. It is to be noted, however, that the said group relations are not static; instead, they can change over space and time as the discourse changes.

Against this backdrop, the increased frequency of drought as a result of the changing climate engenders the scarcity of critical resources. In this case, the competition for these

resources increases and, in turn, inter-clan perceived hostility. And as Ide (2015) finds, the competition for scarce resources turns into violent conflict when there is an established hostility among groups and a symmetry in power while, at the same time, there is a political change that is recent. A case-in-point is the Galkayo conflict that has its roots in historical clan rivalry in national politics as well as on resources. The introduction of federalism in Somalia and the creation of Galmudug state mediated a border dispute with Puntland and aggravated the existing resource-based grievances. This has led to two successive conflicts in 2014 and 2015 between Galmudug and Puntland states. In fact, in the latter conflict, forty people died and thousands were displaced (Yusuf & Khalif, 2015). As such, climate change serves as a "threat multiplier" of the existing grievances among clans and may morph into inter-state violent conflicts as this is politicized by elites and other actors and subsequently militarized. Indeed, the intensity and duration of the violent conflicts increases as it morphs into state-level violent conflicts.

At the same time, the increased inter-clan hostility as a result of the animated competition for scarce resources presents politicians and other actors an opportunity of manipulation to further their interests. Underlying this is the feeling of mutual threat by clans, which is further increased by the scarcity of critical resources. Thus, politicians and other actors find it easy to fuel violent conflict between these clans. In fact, the mayor of Jariban district told the researcher of this study that Al-Shabaab has manipulated the historical resource-based conflicts among clans in areas under Galkayo district to cause violent conflict among them. Later, this may take the dimension of state-level conflicts. This is to divert government efforts to fight this group in Mudug region as they carry assassination killings and bombings. In this sense, increased inter-clan grievances as a result of climate change may be exploited by politicians as well as non-state actors such as terror groups to further their interest, as well as to ensure their survival.

In sum, climate change-induced scarcity of critical resources mediates animated competition among clans, which may lead to violent conflicts. This is more so among clans who had an established mutual narrative of hostility as the perceived threat as well as the security dilemma increase. However, this is exacerbated as politicians as well as non-state actors manipulate these dynamics to engender a conflict of interest. In this sense, the politicization and the subsequent militarization of these resource-based conflicts by actors may morph into state-level conflicts thus likely increasing the intensity and duration of the violent conflicts.

3.3. (c)   Access of Arms

One of the key characteristics of a state is to arrest the means of violence and solely claim the legitimacy to use force. As Weber (1965) defines, a state is "a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory." By implication, the state can claim sovereignty over its designated territory as well as control the actions of its people. Conversely, the lack of monopoly of the use of force by the state mediates anarchy. The attendant security dilemma, consequently, engenders a self-help system where, to ensure survival, people and groups are forced to defend themselves. Key here is access to arms that serves as a deterrent against the attacks of others. However, this, in turn, leads others who are also concerned about their security to arm themselves (see Herz, 1950). In short, arms become essential for survival but, at the same time, this increases the threat perception, as well as the existing security dilemma.

Of particular note is that state fragility and arms proliferation have a symbiotic relationship. Insecurity as a result of state absence prompts people to arm themselves to protect from the predation of others, making arms essential for survival in this anarchical environment. This is not only true internally within Puntland, but also for the states that border it whose clans have historical resource-based conflicts with those in Puntland. Likewise, arms proliferation contributes to state weakness as the state ceases to hold monopoly of means of violence. In this regard, the state is challenged by other actors in terms of authority and social control.

In view of the above, there is proliferation of arms in Puntland. In fact, arms are sold in open markets and people can access them as they wish. This is underpinned by two factors; first is the lack of effective regional cooperation on arms smuggling across borders. This is particularly true as states in the region are either in a state of fragility or total failure. This drives the smuggling of arms across borders and the ease of access. Second is internal state weakness that cannot guarantee the security of its populace. This is more so in border areas (see map) where clans hailing from Puntland come in contact with others whom they share historical conflicts that are based on land and resources. Significantly, it is estimated that privately owned arms outnumber that of the state (PDRC & Interpeace, 2015). Not only does the proliferation of arms contribute to clan conflicts, but also this abets terrorist activities in the region thus endangering state security. As climate change informs rapid loss of livelihoods due to increased frequency of droughts, this may animate the competition for scarce resources. Accordingly, arms become fundamental for access, as well as protection of critical resources.

3.4 Conclusion

While climate change does not directly cause violent conflicts, however, it interacts with contextual factors to produce violent conflicts. As Theisen (2017) explains, four factors are necessary for the change of climate to engender violent conflicts; firstly, there should be high levels of poverty while, at the same time, the majority of the people depend on climate-sensitive livelihoods. Second is the existence of weak institutions that cannot address the scarcity of critical resources, as well as the attendant grievances, while the third is the existence of social fragmentation as a result of identity cleavages. Finally, weak state capacity informs climate change-induced resource scarcity to translate into violent conflict. Simultaneously, the change of climate may weaken the state as it reduces state revenues given that it affects agricultural production.

Using the lens of Homer-Dixon's theory of environmental scarcity and violent conflict, this chapter expounded on the factors that explain the nexus between the change of climate and violent conflict in Puntland. In so doing, the chapter argues that the intersection of environmental scarcity as a result of the changing climate, coupled with contextual demographic, economic, political, and social factors and a weakened conflict resolution mechanism –*Xeer*– explain this nexus. Thus, the convergence of these factors engender low-level violent conflicts among clans; however, it is the manipulation of the attendant grievances by politicians and/or non-state actors that amplify the intensity of the violent conflicts. This is done through the politicization and, in turn, subsequent militarization of the existing resource-based grievances. Most significantly, this may mediate the metamorphosis of the nature of the conflict from that which is between clans to inter-state conflict, as the federal member states in Somalia are based on "genealogical logic" (Hoehne, 2014).

Implicitly, this means that the existence of state fragility has increased the vulnerability of Puntland to climate change-induced violent conflicts. That is, adaptation and resilience to climate change-induced risks is low. The former refers to the "adjustment" to climate change in order to limit its negative effects. The latter, on the other hand, is defined by the Inter-Agency Working Group on Resilience as "the ability of countries, communities, and households to anticipate, adapt to, and/or recover from the effects of potentially hazardous occurrences (natural disasters, economic instability, and conflict) in a manner that protects livelihoods, accelerates and sustains recovery, and supports economic and social development" (as cited in Vivekananda, Schilling, & Smth, 2014, p. 491). Together, this increases the likelihood of violent conflicts as a result of the changing climate.

CHAPTER FOUR
CLIMATE CHANGE-INDUCED INSECURITY AND VIOLENT CONFLICT IN PUNTLAND

4.0   Introduction

There is growing academic literature that appreciates the nexus between climate change and violent conflict (for a review of the literature on the subject see Nordås & Gleditsch, 2007; Koubi , 2019). However, there is scant existing literature that does take into account the socio-political dynamics of the context under study and how this affects the nexus (see for example Dietz, Witsenburg & Zaal, 2012). This is important as the nexus between the change of climate and conflict is not "apolitical." Rather, it is politics and the existing state-society relations that decides whether climate change-induced scarcity of resources turn into violent conflict.

In the field of security studies, the environment is one of the sectors that affect security (Buzan, Wæver & Wilde, 1998). This is because climate change-induced environmental degradation—the inability of biosphere to carry its life sustaining functions—affects both human and national security (Barnett, 2001). The former relates to the negative effect environmental degradation may have on individual human beings. This may include diseases, loss of income, as well as the loss of life and property due to climate change effects such as droughts, storms, rising seas levels, as well as violent conflicts (Barnett, Matthew, & O'Brien, 2010). The latter touches upon national security of states and includes violent conflicts caused by climate change, as well as threats to territorial integrity as lowland areas are at risk of rising seas levels.

This chapter delves into the second question of the research: how does climate change-induced insecurity threats affect violent conflict in Puntland? The objective of the chapter is to examine and analyse how climate change-induced insecurity threats affect the nature of violent conflict in Puntland. Using securitization theory as a guide, the chapter analyses how the change of climate change heightens insecurity by engendering competition among clans, which may lead to violent conflict, and how this intersects with the existing politico-security dynamics in the region. This is so because Puntland is in a stage of "negotiated statehood" in which there are "undetermined processes of state (de-)construction" (Hagmann & Péclard, 2011, p. 6). Here, the state, but also clans, as well as non-state actors are engaged in "doing the state" (Migdal & Schlichte, 2005). That is, these actors are engaged in subverting the state in order to replace it and undertake its functions.

This chapter argues that climate change heightens insecurity by animating the competition for scarce resources, mainly pasture and water, among clans thus pronouncing the existing resource-based conflicts. This, however, may intersect with the existing competition among state(s) and non-state actors, thus changing the nature and intensity of the violent conflict. This is more so in border areas where contestation among states and centre-periphery dynamics are at play. In the end, the conflict may develop a political-economy dimension, thus making traditional conflict resolution mechanisms redundant. However, the chapter finds the use of traditional institutions at the onset of this type of conflict prevents it from blending with the existing politico-security dynamics in the region.

The chapter is structured into the following sections; the first section explains securitization theory and how climate change informs the securitization of scarce resources as this is linked to survival—the essence of security. The second section explores the state of politics in Puntland, and how the hybrid political order in place informs territorialisation and, in turn, securitization of critical scarce resources. This is followed by an elucidation of the insecurity threats existing in the region. The third section outlines three cases that illustrate the nexus between the climate change-induced insecurity in Puntland and how this affects the conflict dynamics in the region, and the final section is the conclusion.

4.1   Securitization Explained

Securitization, according to Ole Wæver who first coined the term, refers to the process in which an issue is elevated as that which is beyond normal politics. This means that the said issue poses an existential threat to a concerned unit, which, in turn, justifies the use of extraordinary measures such as force. In the field of Security Studies, the primary unit of focus is the state; however, there is a growing scholarly perspective to widen the referent objects of security (Wæver, 1995). From the perspective of the wideners, "security is about survival" (Buzan, Wæver & Wilde, 1998, p. 21). Hence, issues that threaten the identity and sovereignty of a given unit such as the state, but also a collective identity, as well as people can be securitized. As such, securitization widens the purview of security from that which is confined to the state (national security) to include society (Wæver, 1995).

For an issue to be securitized there should be a shift of the issue from that which is "non-politicized" to that which is "politicized." In consequence, the issue gains the attention of policymakers where different policy options are weighed and resources are marshalled to

deal with it. However, securitization happens when the concerned issue is presented as that which is above normal politics hence the need for an extraordinary action, which may sometimes be in contrast to existing laws and procedures. This is so because the issue, through discourse, is presented to pose an existential threat to the unit and, therefore, this legitimizes the use of extraordinary measures. In this sense, securitization is a function of an accepted intersubjective discourse that frames a certain issue as that which poses a mortal threat to the sovereignty and existence of a unit (Wæver, 1995; Buzan, Wæver & Wilde, 1998).

Importantly, this implies that security is produced and reproduced through language. After all, it is the construction using language that defines the nature of a security problem. In this view, security is not something that is "out there" (Wæver, 1995). Rather, it is a function of the subjective interpretation of units regarding the security problems they face. Securitization, then, happens when a security problem, using language, is designated as that which poses an existential threat, hence the need for extraordinary measures. Here, the utterance of the word "security" matters as far as framing of an issue is concerned. Thus, the process of securitization is termed as a "speech act." The invocation of the word security, therefore, elevates the issue above normal politics and calls for immediate action that is in contrast to the existing rules of the game. Crucially, however, it is the acceptance by the target audience that is paramount in deciding the outcome of the process (Buzan, Wæver & Wilde, 1998). Securitization only happens when the target audience accepts that the said issue poses an existential threat to them.

Of interest for this study is the securitization at the societal level. Core here is to safeguard an identity against external threats that endanger its sovereignty, as well as its existence. Essentially, identity presupposes difference—that is, identity exists when there is a demarcation that delineates an "insider" from an "outsider" (Campbell, 1998). Put differently, identity is a function of an imagining of "Self" and "Other" (Hansen, 2006). Moreover, the construction of identity is done through intergenerational discourse. As Hansen (2006, p. 16) notes, "it is only through the construction in language that 'things'—objects, subjects, states, living beings and material structures—are given meaning and endowed with a particular identity." In brief, language is the medium through which identity is produced and reproduced while, at the same time, a conception of "Other" is constructed.

Societal securitization, then, happens when there is an intersubjective belief within a group that their identity is under threat from "Other" entities. This follows when a "securitizing

actor" within the group enunciates a threat that poses an existential danger to their identity and way of life, and is accepted by the relevant audience. Of note is that the "securitizing actor" should be somebody who enjoys authority within the group; this includes but is not limited to official authority (Buzan, Wæver & Wilde, 1998). In consequence, this increases the chances of acceptance by the audience and, in turn, allows the concerned authority "to use whatever means they deem most appropriate" in handling the issue (Balzacq, Léonard, & Ruzicka, 2016, p. 495). Clearly, securitization puts agency at the heart of the process, maintaining that the interpretation by actors regarding the nature of the security problems they face determines their response. In a state of a multiplicity of security problems, only issues presented as those that pose an existential threat to identity, including states, will legitimate the use of extraordinary measures including the use of military force.

In summary, securitization moves the concept of security from the view that it is "objective," to that which is a function of the "subjective" interpretation of units' vis-à-vis the security problems they face. The invocation of the word security, then, frames an issue as that which poses an existential threat to a state or society—at a lower level. If this narrative becomes an intersubjective belief, this justifies the use of whatever means available by the group as this is viewed as that which is tied to their existence. This feeds into a zero-sum configuration where survival—the essence of security—becomes supreme.

4.2 The State of Politics and Existing Insecurity Threats in Puntland

Puntland can be characterized as a hybrid political order. Hybridization refers to the process where there is an intersection between the Weberian form of state and traditional institutions to produce a mixed form of governance system. In this hybrid political order, the state, due to its inherent weakness, coexists and sometimes functions in line with the logic of traditional institutions to earn legitimacy, as well as ensure peace and stability. Therefore, there is "diverse and competing authority structures, sets of rulers, logics of order, and claims to power co-exist, overlap, interact, and intertwine, combining elements of introduced Western models of governance and elements stemming from local indigenous traditions of governance and politics" (Boege, Brown, & Clements, 2009, p. 17). As a result, the state does not exclusively hold a monopoly on the means of violence; instead, the society has access to the same and provides security to its members.

The state of Puntland is a product of a clan-based power-sharing agreement between traditional elders, following the collapse of the Somali state. Thus, traditional elders form the crux of the state—a "descent-based entity"— (Hoehne, 2016), as they were key during its establishment. In fact, this is clearly stipulated in the Puntland charter, which gives traditional elders the authority to nominate parliamentarians who then select the President. Similarly, traditional elders are to be consulted by government officials before nominating governors and district mayors (Adam, 2018). In principle, the charter is replaced by the Puntland constitution that was adopted in 2012; in practice, however, traditional elders still enjoy enormous powers within the state as the transition to multiparty politics failed to-date and elders still appoint parliamentarians. From this view, Puntland is a hybrid political order where the state and traditional institutions coexist, intermingle and share authority.

As a feature of hybrid political orders, Puntland is characterized by neopatrimonialism. In this, there is an amalgamation between the public and private spheres, although there is a reference to the legal-rational system of the state (Erdmann & Engel, 2007). In general, this means that leaders use their office to advance personal relations but this is done "behind the guise of rational-legal statehood" (Kraushaar & Lambach, 2009, p. 10). More specifically, however, this is done in two ways: either through clientelism or patronage. The former involves a patron-client relationship where leaders, as patrons, develop personal relations with traditional elders providing favours such as land, an office position or services, in exchange for political support. The latter, on the other hand, involves leaders providing favours such as schools and roads to a group— a clan, for example— to earn their political support (Erdmann & Engel, 2007; Adam, 2018).

By implication, this makes the state a competition ground for power and resources by different groups. In the end, this produces a dominant group that captures state power and a periphery group. In turn, this creates a centre of power, mainly the capital city, where the competition happens and the state is confined to, while the majority of the state territory is characterized by state absence (Boege, Brown, & Clements, 2009). This has two implications for the state; firstly, this informs an idea of the state deficit. This means that there is no unified image vis-à-vis the state in the minds of people. Instead, one's view towards the state is a function of the position of power one's group holds in this descent-based power-sharing arrangement. Underlying this is an institutional failure as transmitters of a unified idea of the state to citizenry. Institutions, after all, reflect the culture of the society they are embedded in (Fukuyama, 2011). Thus, this affects the unity of the people, as well as their sense of solidarity

(Buzan, 1983). Secondly, in view of state absence, there is a growing saliency for the control of territory by clans as an instrument of political capital. In light of this, the vast majority of the Puntland state is controlled by clans. Accordingly, this makes the state weak in the empirical sense for it does not control all the territories under its jurisdiction (see Jackson & Rosberg, 1982).

Territoriality implies the control of a defined territory and, in turn, the imposition of authority. As Sack (1986, p. 19) defines, territoriality is "the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area." Importantly, this includes an exclusive claim to the control of resource endowments in the territory. In Puntland, the descent-based politics makes the control of a territory more salient as this is translated into an instrument of political power. Clans who control a significant geographical area seek relatively more political representation from the state, as this means more taxes and resources for the latter. This represents multiple "mini-states" within the state as "clans seek to be either independent or autonomous from others" (Ingiriis, 2018, p. 68). In fact, clans attempted to secede from Puntland and create parallel states including Maakhir, Khaatumo and Ras Caseyr states (Hoehne, 2016)

The significance of territorial control has increased since the fall of the Somali state in the 1990s. Here, a shift from "network logic" to "state logic" was experienced. Before the collapse of the Somali state, pastoralists migrated from one location to another in search of pasture and water, and there existed cross-cutting ties among communities where each welcomed the other during the harsh times of drought. Thus, there was no great relevance given to territorial control. However, this is replaced by a "state logic" since descent-based states with fixed territories are established. This state logic is characterized by a claim to the control of a specific geographical area, which thus inhibited the cross-cutting ties, and increased the salience of territorialisation. In fact, the control of territory has become the foundation of statehood. As Hoehne (2016, p. 1380) notes, in this space "whoever can create spatial rights and defend them becomes the state."

Of equal note is that within Puntland, there is localized territorialisation where each clan inherently claims to own a specific territory within the state. At the same time, however, there are contested areas with multiple clans claiming ownership and the endowed resources within it. Climate change, therefore, comes against the backdrop of the preceding dynamics. This mediates the interplay between climate change-induced scarcity of critical resources and

politics within the state. Accordingly, clans compete for the scarce resources, mainly pasture and water, in these contested areas, and this may mediate the securitization of resources as an issue of survival as this is linked to livelihoods thus increasing insecurity. Significantly, the state, as well as non-state actors, are sometimes instrumentalized by clans in their competition for scarce resources, as this is enmeshed in the centre-periphery configuration of state politics. The adoption of meta-clan identity—such as the state or non-state actors—alters the balance of power between clans vis-à-vis the competition for scarce resources. Seen from this angle, climate change intersects with the existing hybrid political order in Puntland where the state, clans and non-state actors compete for authority and the control of territory, and acts as a "threat multiplier."

Alongside this are existing insecurity threats within the region. This can be categorized into three; first is inter-clan conflicts. Inter-clan conflicts are based on competition for the ownership of land and resources. With no administrative structures that define the ownership of properties in the vast majority of Puntland territory, clans may turn to use force when dispute over access to land and resources arises. This may later morph into mutual hostility among the clans involved and, in turn, perpetual conflicts. Another driver of clan conflicts is the nature of the state, which is characterized by what Menkhaus & Adawe (2018, p. 32) call "ethno-hegemony." Here clans compete to capture state power and, eventually, marginalize others from access to resources. This exclusion and marginalization may result in grievances and later engender violent inter-clan conflicts.

Second is inter-state conflicts. Following the collapse of the Somali state, mini-states have been established in Somalia; however, there is contestation among these states based on territorial disputes. For instance, Somaliland and Puntland have engaged in territorial disputes in Sool and Sanaag regions, which both claim. Somaliland argues that since these regions were under the British Somaliland rule, therefore they have the legitimacy to rule the area under contestation in line with the Ango-Italian Protocol adopted in 1984 (Hoehne, 2015). Puntland's claim is based on genealogical logic, as the inhabitants of the area under contestation are from the Harti clans who established the state of Puntland. This was further complicated with the creation of an indigenous movement, which culminated in Khatumo State whose vision was to establish an autonomous administration for the said regions. The contestation has sometimes led to open warfare between the states of Puntland and Somaliland, with the latest being in 2018 after Somaliland captured the town of Tukaraq. The conflict is currently in stalemate and can resurface at any time in case there is trigger.

Puntland also has a territorial dispute with Galmudug state in Mudug region, which is based on land and resources. Before the creation of Galmudug state in 2013, the dispute was at clan level, however, the creation of Galmudug state precipitated the conflict to morph into a state level one. This can be attributed to the adoption of the federal system in Somalia, which has pronounced the clan-based territorial conflicts. Galmudug claims its territory includes Galgaduud and Mudug regions, while parts of the latter region is ruled by Puntland state. The tension resulting from this partially contributed to the conflicts that erupted between the two states in the years 2015 and 2016 in the city of Galkayo.

Third is transnational terrorist groups. Currently both Al Shabaab and IS groups operate in Puntland, with Golis Mountains serving as their hideouts. The declared aim of these groups is to topple the apostate state in power and replace it with a state that is guided by Sharia law. In order to achieve their stated objective, these groups carry bomb attacks, as well as assassination killings in the region. To survive, moreover, these groups manipulate the clan dynamics in the region by pitting clans against each other in order to distract the pressure from the government. In this case, the government focuses on settling the clan-based conflict, and in the process, the pressure towards these groups reduces.

The following sections present three cases that illustrate the nexus between the change of climate and (in)security in Puntland and how this affects the conflict dynamics in the region. The first case looks at the resource-based conflict in Galgala town located in the Golis Mountains. While this is not related to renewable resources, however, it sheds light on the intricate dynamics involved in the competition among the state, clans and non-state actors for the control of territory and resources and how, eventually, this produces "a market of violence" (Elwert, 1999). The second case looks at the Kalshaale conflict that has its roots in the competition for the ownership of grazing land, which later morphed into a state and clan militia conflict. The final case appreciates the Iskushuban conflict, which also started following disagreements between clans vis-à-vis the utilization of a grazing land that later erupted into a full-blown conflict.

4.3   The Resource-Based Conflict in Galgala

Galgala, a town located to the west of Bosaaso, was the center of a resource-based conflict between a clan militia—Warsangeli/Dubays—and forces from Puntland state. Located in the Golis Mountains, Galgala is in a remote area that is inaccessible given the lack of roads.

Moreover, to complicate matters, it is located in a contested borderland between Puntland and Somaliland. The conflict followed after the government of Puntland, without consulting the local population, signed an agreement with an Australian company, Range Resources, to exploit minerals in the area. Subsequently, Puntland in 2006 sent international and local experts guarded by state security forces to the site for exploration. As a result, local armed militia attacked the team from Range Resources and the state security forces guiding them (Hoehne, 2014).

At the core of the conflict is that local clans hold the view that, since the area under exploration is "their land" and, in turn, it is "their resources" that are exploited, the government should have consulted them and an agreement reached before undertaking this initiative. This is underpinned by the fact that Puntland, after all, is predicated on a descent-based power-sharing agreement. As a corollary, clans expect the state to consult them before taking strategic moves that affect their land and resources (Hoehne, 2014). This depicts the contestation between the genealogical and state-centric views regarding the state. The former holds that, since Puntland was predicated on "genealogical logic" during its establishment, the state should consult clans as key stakeholders before taking strategic decisions. The latter, on the other hand, holds the view that the state is sovereign and has the sole power to decide on strategic issues within the territory under its jurisdiction. Simply put, this reflects the divide between realism and idealism; that is, "what is" and "what ought to be" (see Herz, 1950).

In line with the state-centric logic, the governments of Puntland at the time tried to use force to quell the resistance from local clans vis-à-vis the exploitation of "their" resources without their consent. Consequently, this has led to fierce resistance from the local clans who saw this as a transgression to their "sovereignty" as well as their identity. At the centre of this rebellion was Sheikh Mohamed Said Atom who, together with local militia, staged war against the government. Attam used "a dual-track policy" in the fight against the Puntland state. The first was targeted to local audience where he enunciated that he represents the grievances of local clans by defending "their resources." In the second, he argued that Sharia law should be the basis of governance in Puntland, hence his fight against "the apostate government led by men who cooperated with the enemies of Islam" (Hoehne, 2014, p. 365). As such, the addition of a religious dimension mediated the metamorphosis of the nature of the conflict.

The internationalization of the conflict through the addition of a religious dimension has led to "a market of violence" (Elwert, 1999). On the one hand, the local militia led by

Sheikh Attam, through forming an alliance with Al Shabaab, got access to financial and logistical support from the group while, at the same time, they can collect taxes from the local people, as well as businesses or threaten them with violence. The government, on the other hand, capitalizes on the prevailing global counter-terrorism discourse and seeks financial and military support from potential donors to fight terrorism in its area who threaten global peace and security. This informs "elite extraversion" who use external counter-terrorism resources to entrench their wealth and political power (for a detailed explanation of extraversion and state-building in Somalia see Hagmann, 2016). This way, the conflict develops "a political economy" dimension where violence becomes profitable and this thus makes the traditional modes of conflict resolution redundant, hence the perpetuation of the conflict.

The movement later disintegrated with some factions, led by Sheikh Abduqadir Mumin, paying allegiance to the Islamic State (IS) in 2015. In fact, IS took control of the strategic city of Qandala in 2016 (Crisis Group, 2016).This further complicated the multi-layered conflict already existing in Puntland state as fighting broke between Al Shabaab and IS, as well as between these two groups and the state. Clearly, this demonstrates the fluid nature of the conflict dynamics in this region that is characterized by a hybrid political order where the state and traditional institutions share and compete for authority. In addition, this is complicated by the existence of non-state actors, Al Shabaab and IS, who challenge the authority of both the state and traditional institutions. Taken together, this produces a trifurcated state in which the state, clans and non-state actors contest for authority and control of territory.

In summary, given the hybrid political order that characterizes the state of Puntland, clans inherently claim a defined territory within the state as "their land" and in turn the endowed resources as "theirs." At the same time, however, other clans, as well as the state, may try to exploit these resources. This leads to the securitization of the resources, which may lead to violent conflict. The resultant grievances of clans may be manipulated by non-state actors, which in turn changes the nature of the conflict. In the end, this produces "a market of violence" where conflict becomes profitable both for the state, as well as for non-state actors. Most importantly, this makes the traditional conflict resolution mechanisms redundant, hence the perpetuation of the conflict.

4.4 The Kalshaale Conflict

The Kalshaale conflict has its roots in a contestation for a grazing land between two clans—Dhulbahante and Habar Jeclo. It is located in a contested borderland claimed by the states of Puntland and Somaliland, as well as the locally formed Sool, Sanaag, and Cayn (SSC) state (Hoehne, 2015). Somaliland claims this territory as this was part of the British Somaliland Protectorate, hence their view that colonial boundaries should be respected as is the case in other colonized African countries. Puntland's claim, on the other hand, is predicated on "genealogical logic" for Dhulbahante is a sub-clan of the Harti clan, the latter being the clans who established the Puntland state. The SSC, which was established in 2009, imagined to create an autonomous state for the Dhulbahante clan under the Federal Government of Somalia. Underlying this was the assumption that Puntland and Somaliland state projects were instruments of clan hegemony in which the Dhulbahante clan was made a periphery. Later, the SSC morphed into Khaatumo state.

The conflict started in 2010 after members of Habar Jeclo clan tried to establish *berkado,* or cisterns in Kalshaale, for it is home to a grazing land and a clay reservoir. This was refused by the Dhulbahante clan, who also claimed this territory. This is because the establishment of cisterns denotes ownership of the territory, as well as the endowed resources such as pasture and water. As Hoehne (2015, p. 92) notes, "building in an uninhabited place stakes your claim to it, and in this way descent groups can expand and secure important resources, including pasture and water." The competition is further animated by the scarcity of critical resources such as pasture and water as a result of climate change while, at the same time, there is an increased population (Hoehne, 2018). This, therefore, increased the saliency of territorial control and, in turn, resources, as this linked to survival hence its securitization. Moreover, this is enmeshed in borderland politics among states, as well as centre-periphery dynamics.

With the existence of this tension, members from Habar Jeclo clan murdered an elderly man from Dhulbahante clan, accusing him of being among those who blocked the building of their cisterns. Consequently, this led to inter-clan conflict and, as a result, seven men from the former clan and three from the latter were killed. In this regard, this shows the securitization of scarce resources, and how this compels groups to use whatever means, including force, to access these resources that are essential for survival. At the same time, the conflict presented an opportunity of exploitation to other actors including Puntland, Somaliland and the SCC as each tried to increase its influence in the area. In this case, the resource-based conflict intersects

with intricate border politics and this thus complicates the nature of the conflict making it multi-layered (Hoehne, 2015).

In view of the complex nature of the conflict, a mediation committee was set up that consisted of traditional elders hailing from other different clans. In parallel, however, Somaliland deployed troops in the area and set up a committee made up of nine religious leaders to look into the issue. The latter committee ruled that each clan should pay compensation for the dead and, as such, the Habar Jeclo clan was ordered to pay for the three dead, while the Dhulbahante was to pay for the seven dead. Equally, each clan was allowed to build three cisterns in the contested area but not more. The Dhulbahante rejected the ruling, accusing the committee of being impartial. Subsequently, the Somaliland administration declared the area as a military zone and asked clan militias to vacate (Hoehne, 2015).

This has changed the nature of the conflict, as this move was seen by the Dhulbahante clan as a pretext for the conquering of "their land" by Somaliland in general and Habar Jeclo clan, in particular. As a result, this has informed local resistance which was mobilized through the SSC and this culminated in clashes between Somaliland and the SSC forces in January 2011. In total, a 100 people were killed in the conflict. Later, this was settled in mid-2012 after a local politician hailing from the Dhulbahante clan brokered an agreement between Somaliland and the locals, in which the forces of the former would leave "the land" of the latter (Hoehne, 2017). Conspicuously, this demonstrates how the securitization of scarce resources as a result of the changing climate and, eventually, the competition for these resources leads to inter-clan conflict. Moreover, this intersects with existing competition among multiple "states" for borderland areas thus changing the nature and the intensity of the violent conflict.

This further underscores how climate change-induced scarcity of critical resources animates the competition for scarce resources among clans in borderland areas dominated by "non-state governance" (Raeymaekers, 2011, p. 37) in which traditional modes of conflict resolution guide and control behaviour. However, this is challenged by climate change (see chapter three), as well as multiple "states" competing for the control of territory and authority, and are striving to replace the traditional *Xeer* system. As a result, this exacerbates the conflict as "states" lack the conflict resolution skills, as well as the legitimacy to settle this type of resource-based clan conflict. Thus, this mediates the metamorphosis of the nature of the conflict as "states" themselves are drawn into the conflict. In short, climate change engenders competition for scarce resources among clans, which are essential for their survival and this

may lead to violent conflict. This blends with the existing politico-security dynamics in the region, thus further pronouncing the conflict.

4.5   The Iskushuban Conflict

The Iskushuban conflict started in January 2021 after disagreements between Cismaan Maxamuud and Muuse Saleebaan clans on the building of cisterns near grazing land in Kurtumo village, which is 18km far from Iskushuban district, erupted into a full-blown conflict. As mentioned elsewhere, the building of physical structures in a given space translates into ownership. As such, the conflict has its roots in the contestation for the ownership of grazing land in light of the scarcity of renewable resources as a result of increased droughts due to the change of climate. This highlights the securitization of scarce resources as this is linked to the survival of groups, which is the hallmark of security. Thus, the increased saliency of access to these resources means groups are left but to use extraordinary measures including the use of force.

As a result of the conflict, six people from both sides of the warring parties were killed (Puntland Post, 2021). The government of Puntland has intervened in the conflict declaring clan militias to vacate the area. Similarly, the government announced that both warring parties should not go to the area under contestation to avoid further clashes. Most significantly, the government appointed traditional elders to mediate the conflict (Horseed Media, 2021). Here, the government understands the complex nature of the conflict and, as such, this explains its appointment of traditional elders who enjoy more conflict resolution skills and legitimacy relative to the government.

After consultations, the traditional elders brokered an agreement between the two warring clans. In the agreement, each clan should pay the compensation of the deceased from the other side, as well as care for the injuries. Moreover, the agreement stipulated that no physical structures could be built in the area under contention. The agreement further indicated that any party who violates the agreement will be fined and is liable to the consequences of the violation. The government of Puntland served as the guarantor of the agreement.

The Iskushuban conflict is a testament to the conflict potentiality of climate change-induced scarcity of renewable resources. This is so because these resources serve as the bedrock of livelihoods for the majority of the population in Puntland. Therefore, there is increased competition for these resources among clans, which, in turn, may lead to violent conflict.

Nevertheless, the Iskushuban case demonstrates how traditional conflict resolution mechanisms with the support of state institutions are best suited to mediate this type of conflict. For traditional institutions enjoy more conflict resolution skills and legitimacy than the state. This prevents the conflict from blending with the existing politico-security dynamics in the region thus becoming multi-layered and complex in nature where the state and non-state actors become part of the conflict.

4.6 Conclusion

Puntland is a hybrid political order where the state and traditional institutions share and compete for authority. Equally, non-state actors, including transnational groups, challenge the authority of the former two groups. Climate change comes against the backdrop of the foregoing dynamics and may engender competition for scarce resources among clans, which may lead to violent conflict thus increasing insecurity. This, therefore, may blend with the existing competition among actors in the region thus changing the nature of the conflict. This is particularly true in contested border areas claimed by multiple states where centre-periphery dynamics are at play, as well. However, the study finds that the use of informal traditional conflict resolution mechanisms are best placed to mediate this type of conflict. This is so because state(s) lack the skills, as well as the legitimacy to solve these type of conflicts. Most significantly, states are viewed to further partisan interests vis-à-vis the conflict, considering the centre-periphery configuration of state politics at play.

CHAPTER FIVE

RECAPITULATION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter seeks to summarize the findings of the study, recapitulate hypotheses, conclusion and lastly proffer recommendations. In general, this study tried to establish the relationship between the change of climate and violent conflict in Puntland State of Somalia. Using qualitative research method, the study grappled with the following two questions: 1) What factors explain the nexus between climate change and violent conflict in Puntland State of Somalia? 2) How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia? The objectives of the study were; 1) to examine and analyse the factors that explain the nexus between climate change and violent conflict in Puntland State of Somalia; 2) to examine and analyse how climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia. To achieve the proposed objectives, the study converged Homer-Dixon's environmental scarcity and violent conflict theory with elements of securitization theory.

5.1 (a) Factors that Explain the Nexus between Climate Change and Violent Conflict in Puntland

The first objective of the study was to examine and analyse the factors that explain the nexus between change of climate and violent conflict in Puntland. To achieve its first objective, the study used Homer-Dixon's environmental scarcity and violent conflict theory and appreciated the demand, supply and structural sides of the nexus. The assumption here is that climate change does not directly cause conflict *per se*. Instead, it interacts with existing contextual factors to engender violent conflicts. The study found that the intersection of socio-demographic, economic and political factors explain the nexus between the change of climate and violent conflict in Puntland.

. More specifically, the study finds for socio-demographic factors, at the demand side of the nexus, there is an increase in population in Puntland. It is estimated that the population is increasing by 3 percent every year. At the same time, however, the resource pie is reducing with climate change further pronouncing this trend. This means more demand for resources and land, and hence this accelerates land degradation, as well as animates the competition for resources. This is likely to increase the existing resources-based conflicts that are already

prevalent in the region. In short, the mismatch between population growth and the availability of resources disrupts the existing equilibrium, which may mediate violent conflicts.

At the same time, the traditional *Xeer* system, which served as a source of order in the vast majority of the hinterland of Puntland characterized by state absence, is weakened. The system guides relations between the society and is adjudicated by traditional elders. However, the system is challenged by the increased frequency of droughts, as livestock is reduced—an integral part of the system. Clans use livestock to settle crimes perpetrated against each other including homicide and damage of properties. In contrast, failure to pay livestock is a declaration of war and may mediate mutual hostility and perpetual conflict. The increased frequency of droughts, however, has caused the reduction in the number of livestock at the disposal of households. As a result, clans are finding it increasingly difficult to pay their liabilities on time. This prompts the clan of the victim to pursue revenge killings. This way, anarchy increases as the system is weakened thus increasing the occurrence of violent conflicts. In short, climate change weakens the *Xeer* system, which provided a sense of stability in this space characterized by anarchy.

Similarly, the increased frequency of droughts serve as a push factor for people to migrate to other locations in search of pasture and water. However, the study finds that the end result of the potentiality of migration to engender violent conflict is a function of the host communities' perception towards migrants. On the one hand, this study finds that there is increased cooperation among clans rather than conflict in this situation. This is because this creates mutual identity of "a community of sufferers" thus increasing solidarity and cooperation among communities. On the other hand, however, the study finds that the politicization of migration by actors may increase tension and, in turn, may lead to violent conflict. This is done through discourse, which presents migrants as a threat to the identity and territory of the host community. This, therefore, increases the negative perceptions towards migrants and also increases the probability of violent conflicts. What this means is that migration as a result of climate change does not cause violent conflict *per se*. However, this is a function of the entrenched discourse in the host community towards the migrants. If, for example, the migrants are seen as temporary and carry no threat, this may not lead to violent conflict. In contrast, however, if the migrants are seen as a threat by the host community, this increases the chances of increased tensions and may mediate violent conflict.

Regarding economic factors, the study find that, the increased frequency of droughts as a result of climate change has worsened the livelihood conditions of the people in Puntland as the majority of them depend on climate-sensitive livelihoods. Increased droughts as a result of the changing climate has engendered the deaths of many livestock thus affecting the income of households. As income reduces, the likelihood of engaging in violent conflict increases as the opportunity cost of doing this reduces. In this light, climate change affects the income of people in Puntland and, as such, reduces the opportunity cost for people to participate in violent conflicts. This is so because this increases decremental relative deprivation and in turn grievances and thus drives inter-clan conflicts, as well as people to join militant groups in exchange for financial benefits. For militant groups promise financial benefits during their recruitment of fighters. As many people's income is affected as a result of the changing climate, this increases their likelihood of joining militant groups in exchange for money. Together, this increases violent conflicts in Puntland as clan conflicts increase], as well as security threats from militant groups such Al Shabaab and IS.

As far as political factors are concerned, the study finds that there is political distance decay, which facilitates the translation of climate change effects into violent conflict. This is underpinned by the nature of the state which is confined mainly in urban centres and the vast majority of territory is characterized by statelessness while, at the same, it marginalizes many groups from state power, as well as fair distribution of resources. The existing distance decay means that the society is left but to provide security to themselves. The resultant security dilemma informs anarchy and, in turn, the instrumentalization of private violence as a means of protection and resource mobilization. Moreover, state absence in parts of the state territory encourages non-state actors to create sanctuary grounds within the state and manipulate the existing distance decay between the state and society. Accordingly, climate change increases the distance decay and, at same time, weakens state-society and inter-society relations.

Simultaneously, there is a historical conflict among clans in Puntland, which is based on the competition for land and resources. This is informed by the bifurcation of state with no administrative authority that defines ownership of resources in some parts of the state, mostly rural areas. Alongside this is the scarcity of resources as a result of the changing climate. Climate change, therefore, increases tensions as it induces scarcity of resources, which then increases the existing competition among groups and may lead to violent conflict. Moreover, the state of Puntland does not hold monopoly on the means of violence. The society also has access to arms and this increases the existing security dilemma. In fact, the society has access

to more arms than the state. This can be explained by the inability of the state to guarantee the security of its population. Therefore, the society must provide security to themselves. In the end, this mediates the proliferation of arms, a characteristic inherent in a security dilemma situation. This contributes to the translation of the competition for climate change-induced scarcity of resources into violent conflict.

5.1. (b)   Climate Change and Insecurity

The second objective of the study was to examine and analyse how climate change-induced (in)security threats as a result of scarcity of critical resources affect violent conflict in Puntland State of Somalia. To this end, the study used securitization theory and found that climate change increases insecurity by increasing clan conflicts as they compete for critical scarce resources, which are essential for the survival hence securitization. Since securitization—the elevation of an issue as that which poses an existential threat—is a socially embedded phenomenon, scarce resources as a result of the changing climate is securitized and this justifies the use of whatever means possible to access them including the use of military force. This may therefore engender inter-clan conflicts who are competing for the access of the scarce resources thus pronouncing insecurity in the region.

This comes against the background of the state in a negotiated statehood stage. As a result, the state becomes an actor among multiple who are drawn into the resource-based conflict. In this regard, the conflict may intersect with the existing politico-security dynamics as state(s) and non-state actors compete for the control of territory and authority. This way, the nature of the conflict changes and, eventually, this may produce "a market of violence" where the conflict becomes a profitable enterprise for the actors engaged. Nevertheless, the study finds that traditional conflict resolution mechanisms are best placed to mediate this type of conflict as they enjoy more skills and legitimacy than the state.

5.2   Recapitulating Hypotheses

Regarding the hypotheses, the study had two hypotheses. The first hypothesis posits that the nexus between climate change and violent conflict in Puntland is a function of actor militarization of access to scarce resources. Here the argument is that the change of climate translates into violent conflict when actors pursue military force as a means to access scarce

resources that are essential for survival. The second hypothesis of the study states that securitization of climate change-induced scarcity of critical resources engenders securitization at societal and state levels, which mediates a perpetual violent conflict underpinned by the idea of the state deficit. The assumption here is that securitization of an issue elevates it to an existential threat, which justifies the use of whatever means possible. This includes the use of force. In this regard, this is likely to inform zero-sum violent conflicts for the access of these resources.

5.2 (a) Actor Militarization of Access to Scarce Resources

The first hypothesis of the study is that the effects of the changing climate morph into violent conflict when actors pursue a military option to access the scarce resources under contestation. This is because of the existence of a security dilemma as a result of state weakness. Hence, in an anarchical nature, self-help system becomes the rule of the day. Therefore, actors are left but to use force to access resources, as well as protect them. Underpinning this is the lack of state institutions that can ameliorate the resultant grievances of climate change-induced scarcity of resources before they erupt into violent conflict. This is further animated by the population growth without attendant increase in the resource pie. The increase in the population puts pressure on the environment as it informs environmental degradation while, at the same time, it mediates mismatch between the number of people and the available resources thus disrupting the existing equilibrium.

In addition, the existence of a weakened customary *Xeer* system as a result of the change of climate. *Xeer* served as the mechanism to settle resource-based disputes among clans in the majority of Puntland territory. This instilled a level of certainty, which reduces the existing anarchy. Disputes that arise as a result of the competition of resources were adjudicated by traditional elders in a transparent and accountable manner whereby each actor involved argue their case. Subsequently, a ruling is made in line with the precepts of the *Xeer* system. This therefore reduced grievances, as well as the likelihood of violent conflict. However, the system is now weakened by the change of climate as livestock is reduced by the increased frequency of droughts. As such, clans find it difficult to pay the fines that serve as a reparation for their actions to the family of the victim. Consequently, this may inform revenge killings and perpetual clan conflicts. Equally, there is a history of conflict based on resources in the region. This is caused by the existence of mutual hostility among some clans, which justifies conflict.

Moreover, there is proliferation of arms in Puntland, a characteristic inherent in a security dilemma situation. All these serve as the mechanisms that translate the change of climate into violent conflict in Puntland.

5.2 (b) Climate Change-Induced Securitization at Societal and State Level Mediate Perpetual Violent Conflicts

The second hypothesis of the study states that securitization of climate change-induced scarcity of critical resources engenders securitization at societal and state levels, which mediates a perpetual violent conflict. Importantly, this is underpinned by the idea of the state deficit. The assumption here is that securitization of an issue is a function of the intersubjective belief of the members of a concerned unit. In a state of multiplicity of the existing security problems, only those presented as posing an existential threat are securitized and elevated to an issue relating to survival. Such a belief justifies the use of force to ensure survival. In light of this, climate change engenders securitization as the resources that are essential for survival become scarce. Therefore, clans competing for the access of these resources sometimes use force as this is linked to their survival.

At the same time, the state may see this as a security threat to peace and stability. However, the state does not enjoy widespread legitimacy as it is based on genealogical logic. Considering the centre-periphery configuration of state politics, state intervention may further pronounce the conflict as it may be viewed as a partial actor. This may mediate the metamorphosis of the conflict as non-state actors may also exploit the attendant grievances and become party to the conflict. Consequently, this changes the nature and intensity of the conflict as it develops a political-economy dimension eventually informing the emergence of "a market of violence." This, therefore, informs the perpetuation of the conflict. The study notes that the use of traditional elders to mediate this type of conflict may prevent it from blending with the existing politico-security dynamics in the region. This is because traditional institutions enjoy more conflict resolution skills and legitimacy than the state.

5.3   Conclusion

This study examined the nexus between the change of climate and violent conflict in Puntland State of Somalia. The study grappled with the following two questions: What factors explain the nexus between climate change and violent conflict in Puntland state of Somalia? How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia? Using qualitative research method, the study converged Homer-Dixon's environmental scarcity and violent conflict theory with elements of securitization theory to explore the nexus.

The study finds that, owing to existing contextual factors the state of Puntland is more vulnerable to climate change-induced violent conflicts. This is because while the population is increasing, the resource pie is reducing as a result of the increased frequency of droughts underpinned by the changing climate, while the majority of the population in Puntland depend on climate-sensitive livelihoods. Consequently, this worsens their livelihood conditions as their income and, in turn, food security is affected. Ultimately, this reduces the opportunity cost for participating in violent conflicts. This is further animated by the existence of political distance decay where the nature of how the state is designed produces "ethno-hegemony" where a few enjoy state power while the rest are excluded. Most significantly, the increased frequency of droughts weakens the customary *Xeer* system that has always served as a fulcrum of stability in this region. Moreover, this intersects with a history of conflict and a proliferation of arms in the region. Taken together, these factors explain the nexus between the change of climate and violent conflict in Puntland.

Equally, the study finds that, climate change increases insecurity in the region as it mediates inter-clan conflicts underpinned by the competition for resources. However, given that the state of Puntland is a "negotiated statehood," the resource-based conflicts may intersect with the existing politico-security dynamics in the region. This means that actors balance each other in their competition for resources by creating an alliance with the states that compete for territory in the region, as well as non-state actors. This informs the metamorphosis of the conflict which, eventually, may lead to "a market of violence" where the conflict develops a political-economy dimension, which thus informs its perpetuation. The study finds the use of customary conflict resolution mechanisms at the onset of the conflict may prevent it from blending with other insecurity dynamics.

5.4 Recommendations

In light of the study findings, the study proffers the following recommendations in order to mitigate the translation of climate change-induced scarcity of resources into violent conflict in Puntland State of Somalia:

I. While the global carbon emissions drive climate change, however, the increasing deforestation to produce charcoal in Puntland also contributes to this trend. The state should therefore devise strategies to curb these activities. This includes but is not limited to waiving taxes on gas for cooking to for the demand of charcoal to reduce. Similarly, the state should encourage afforestation measures to reduce the effects of climate change.

II. The state should reduce the existing distance decay between the state and society. Core here is to expand the reach of the state from cities to the hinterland by providing state services, including security and justice, but to name a few. This therefore reduces the existing security dilemma. At the same time, the state should ensure a fair distribution of resources. Further, the state should shift from identity-based politics to one guided by ideals and universal suffrage. While commendable efforts have been taken in this regard, the state should complete the transition to multi-party politics as soon as possible.

III. Traditional *Xeer* system plays an important role in mediating conflicts in Puntland. However, the system is currently challenged by climate change, as well as the competition from the state and non-state actors, while the need for it has increased. The state should therefore support and strengthen the *Xeer* system to mediate climate change-induced violent conflict, as the system enjoys more skills and legitimacy than the state. This prevents the conflicts from blending with the existing politico-security dynamics in the region. This is particularly true as the state may be seen as an entity that promotes the interests of specific groups by those which may be of the opinion that they are marginalized and excluded from the state politics, as well as the distribution of resources.

IV. The state should recognize the impending security risks climate change poses. Cognizant of this, the state should move to reduce vulnerability and increase the resilience of its population to climate change. This includes the establishment of early-warning, early-action systems that can predict climate shocks and help households to adapt and recover from these shocks, accordingly. Likewise, the state

should increase the resilience of households to the increasing frequency of droughts. This includes ensuring that people have access to water by building more water infrastructure such as boreholes, as well as efficient use of rainwater by constructing water catchment areas such as dams.

V.   The state should control the proliferation of arms in Puntland. While this study understands that this is connected to the existing distance decay, however, the state should strive to provide security to its citizens which therefore reduces the existing security dilemma and, in turn, the need to access arms. Similarly, the state should control the import of arms into its territory.

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APPENDICES

APPENDIX I: INTERVIEW GUIDE FOR RESEARCH RESPONDENTS

I. What factors explain the nexus between climate change and violent conflict in Puntland State of Somalia?

II. Can you please explain in detail how the factors you mentioned link the nexus between climate change and violent conflict in Puntland?

III. Do you think the traditional *Xeer* system is weakened as a result of climate change-induced droughts in Puntland?

IV. If yes, can you please explain how this affects violent conflicts in Puntland?

V. How does climate change-induced insecurity threats affect violent conflict in Puntland State of Somalia?

VI. Do you think non-state actors such as Al-Shabaab and IS can exploit the grievances caused by climate change-induced droughts?

VII. If yes, could you please explain how these actors can exploit these grievances?

VIII. What measures are necessary to mitigate climate change-induced violent conflicts in Puntland State of Somalia?

APPENDIX II: FIELD RESEARCH AUTHORIZATION

University of Nairobi
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Department of Political Science & Public Administration

Telegrams: "Varsity", Nairobi
Telephone: 318262 ext. 28171
Telex: 22095 Varsity
Email: dept-pspa@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

21/11/2020

TO WHOM IT MAY CONCERN

AUTHORIZATION TO CONDUCT FIELD RESEARCH

This is to confirm that Dek Abdi Farah of Registration Number (C50/11855/2018) is a bonafide student in the Department of Political Science and Public Administration, University of Nairobi.

Abdi is pursuing a Degree in Master of Arts in International Relations. He is researching on, **"Climate Change and Conflict: A case Study of Puntland State of Somalia, 2008 - 2018".**

He has successfully completed the first part of his studies (Coursework) and is hereby authorized to proceed to the second part (Field Research). This shall enable the student to collect relevant data for his academic work.

It is against this background that the Department of Political Science and Public Administration, University of Nairobi requests your assistance to enable the student in collecting relevant academic data. The information obtained shall be used only for academic purposes.

The student is expected to abide by your regulations and the ethics that this exercise demands. In case of any clarification, please feel free to contact the undersigned. Thanking you for support.

Yours Sincerely,

Professor Fred Jonyo,
Chairman,
Department of Political Science and Public Administration,
UNIVERSITY OF NAIROBI

APPENDIX III: PUNTLAND MINISTRY OF EDUCATION FIELD RESEARCH AUTHORIZATION

DAWLADDA PUNTLAND EE SOOMAALIYEED WASAARADDA WAXBARASHADA IYO TACLIINTA SARE XAFIISKA WASIIR KU XIGEENKA		ولاية بونت لاند الصومالية وزارة التربية والتعليم العالي مكتب الوزير

PUNTLAND GOVERNMENT OF SOMALIA
MINISTRY OF EDUCATION AND HIGHER EDUCATION
OFFICE OF THE VICE MINISTER

Ref: W/W/W/TS/062/2020   Date: 28/11/2020

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION

We are hereby authorizing **Mr. Dek Abdi Farah** to conduct academic field research on **"Climate Change and Conflict: A Case Study of Puntland State of Somalia (2008-2020)"** in Puntland.

Mr. Farah is currently pursuing a Master of Arts in International Relations at the University of Nairobi. Therefore, any assistance rendered to him as he collects relevant academic data is highly appreciated.

Yours Sincerely,

Bashir Jama Mohamed

Acting Minister and Deputy Minister of Education and Higher Education of the Government of Puntland

Email: Viceminister@gmail.com   Tell: 0907793204   Web: moepuntland.com