DROUGHTS IN THE MIDST OF CONFLICTS:

A MIXED-METHOD ANALYSIS OF

WATER INSECURITY & CIVIL WAR DURATION AND OUTCOMES

by

Yunus Ozturk

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Political Science and International Relations

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To

Esra, the beauty of my life

and

Asaf Kaan, the joy of my life

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ABSTRACT

This dissertation aims to understand the nexus between water insecurity and civil war duration and outcomes. As many civil wars have occurred in places where people's livelihoods and agricultural production are sensitive to water availability/scarcity, this dissertation examines whether climate change-induced environmental problems, particularly persistent droughts, lead to prolonged civil wars. Given the interconnectedness of human and state security, as highlighted in the human security literature, this dissertation primarily argues that persistent droughts cause protracted civil wars by undermining both human livelihoods and state capacity in ways that force warring parties to alter their strategic calculations regarding whether to end or continue the war.

While a variety of social, political, and economic factors undoubtedly contribute to civil war dynamics, to date, the extant research on civil war duration and outcomes has focused on socio-political and socio-economic factors without considering environmental issues. This study, therefore, examines the contribution of persistent droughts to the prolongation of civil wars and their varying outcomes by changing the balance of power between belligerents. In this regard, this dissertation builds on a mixed-method strategy that combines both quantitative and qualitative analyses to provide internally and externally validated evidence.

The results of the quantitative component show that droughts are more likely to shorten the duration of civil wars, primarily through negotiated settlements and, to a lesser extent, through government victories. Moreover, particularly the weight of

agricultural production in the economy and the number of active non-state actors contribute to this result. However, no empirical evidence has been found for civil wars that end in rebel victories. Interestingly, the exclusionary and discriminatory state policies against certain social groups do not have any statistically significant impact on the drought-civil war dynamics nexus. The qualitative component, on the other hand, sheds light on how persistent droughts lead to protracted civil wars and concludes that droughts can prolong civil wars by undermining people's livelihoods and, more importantly, state capacity.

Nevertheless, droughts are neither a necessary nor a sufficient condition for protracted civil wars. Civil wars in which warring parties compete for the control of exploitable natural resources are likely to be prolonged regardless of droughts. In such civil wars, droughts are typically used by central governments as tools for counterinsurgency operations by manipulating famine conditions and international emergency aid. Thus, for droughts to prolong civil wars, at least one of the two conditions must be met: Rebel groups are unable to form a united/coordinated front against government forces in the early stages of the war, and/or government forces conducting counterinsurgency operations are unable to obtain external support, be it financial or military.

Chapter 1

INTRODUCTION

1.1 Conflict Trends: *Quo Vadis*?

Since the end of World War II, the world has been experiencing two notable and simultaneous conflict trends. Interstate wars as a solution mechanism to solve state disputes, particularly in the developed world, have become a rare phenomenon.[1] Yet, intrastate wars have become much more prevalent, especially in the developing world (see *Figure 1* and *Figure 2*) (Palik et al., 2020; Pettersson et al., 2021).[2] Parallel to these two war trends, two scholarly debates have arisen in conflict studies in the post-Cold

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[1] According to Mandelbaum (1998), the decreasing trend in interstate wars could be disrupted by two countries: Russia and China. For him, irredentist foreign policies of and secessionist movements within and around Russia and China are likely to result in a major war particularly in the Russia-Ukraine border, the Crimean Peninsula, and the Taiwan Strait. For Szayna et al. (2017), however, such a decreasing trend in interstate wars could be reversed by two factors: either a global depression or a revisionist Chinese foreign policy. For more information about how the downward trend in interstate wars could be reversed, please see: Mandelbaum (1998). Is Major War Obsolete?. *Survival, 40*(4), 20–38.; Szayna et al. (2017). *What Are the Trends in Armed Conflicts, and What Do They Mean for U.S. Defense Policy?*. RAND Corporation.

[2] According to Sarkees (2014) and Sarkees and Wayman (2010), although there have been cyclic ups and downs since 1815, there has not been any notable decreasing trend regarding the number of war onsets. Instead, based on their analysis of the Correlates of War (COW) dataset, they claim that there has been a consistent trend in warfare since the early years of the nineteenth century. Their conclusion is in contrast with the result of other studies, such as The World Bank Group (2011) and Human Security Research Group (2014), relying on the analysis of the Uppsala Conflict Data Program (UCDP) dataset. Nevertheless, they agree with the conclusion of Palik et al. (2020) and Pettersson et al. (2021) that compared to interstate wars, intrastate wars have become much more prevalent since 1945. Such a difference regarding war trends in these studies is related to three factors: (i) different definition of civil wars, (ii) different time periods that datasets investigate, and (iii) different coding rules of civil wars. For more information regarding how different definition and coding schemes of civil wars yield different and sometimes conflicting outcomes, please see: Sambanis (2004). What Is Civil War? Conceptual and Empirical Complexities of an Operational Definition. *The Journal of Conflict Resolution, 48*(6), 814–858.

War period: (i) which factors are effective in reducing the number of wars between states, and (ii) which factors lead to the increasing number of intrastate wars. In addition to these two debates, scholars have also discussed the nature of intrastate wars that emerged, particularly after the Cold War.

Regarding the first debate, the end of the Cold War, without allowing a direct conflict between the antagonistic nuclear superpowers due to mutually assured destruction -*MAD*- conditions, ignited a scholarly debate about the root causes of such a decreasing trend in interstate wars. For some, the decreasing trend could be explained by changes in norms and attitudes about violence (e.g., Mueller (2001)). Yet, for others, the root causes of such a trend should be searched in the historical conditions since the early human civilizations (e.g., Gat (2013), Goldstein (2011)[3], Pinker (2011)[4]). The

[3] Although Goldstein (2011) claims in the first half of his book that there is a continuous declining trend of armed conflicts in the world since early civilizations, he particularly emphasizes the role of international community through the UN system, namely peacekeeping missions, in reducing the number of armed conflicts in the world since the end of Cold War. Despite his argument that UN peacekeeping missions play a major role in reducing post-Cold War intrastate wars is right, it is nevertheless hard to establish a connection between this argument and the declining trend of armed conflicts since early civilizations. As is known, UN peacekeeping missions took the lead in reducing armed conflicts particularly after the 1990s but not before (Fearon, 2017, pp. 25-26). For more information with regard to how UN peacekeeping missions have reduced the number of civil wars in the post-Cold War period and new developments in the civil war termination literature, please see: Hartzell (2016). Civil War Termination. In W. R. Thompson (Ed.), *Oxford Research Encyclopedia of Politics*. Oxford University Press.

[4] It is important to note that Pinker (2011) is not only interested in interstate and intrastate wars. Instead, he examines all forms of violence, including homicide, rape et cetera, since the early human civilizations and concludes that all forms of violence have decreased by the impacts of progressive historical conditions, namely the formation of modern state, the rise of international trade, the emergence and dissemination of cosmopolitan ideas, the prevalence of rationality in all aspects of human life, and the rise of rights movements, particularly feminism. Similar to Pinker (2011)'s broad understanding of violence, Krause (2016) claims that the level of "lethal violence" is much higher in non-war settings compared to war zones; therefore, he argues that one needs to go beyond a narrow focus on violence, such as interstate wars, civil wars, and terrorism. For her, embracing an extended conceptualization of violence, namely "everyday violence", is a key to understanding the changing nature of contemporary violence in the twenty-first century. For more information about how lethal violence in non-war zones has increased compared to war zones, please see: Krause (2016). From Armed Conflict to Political Violence: Mapping & Explaining Conflict Trends. *Daedalus, 145*(4), 113–126.

formation of modern states, economic interdependence, the democratization of states as well as rationalism, cosmopolitan ideas, and rights movements are seen as some of the major factors leading to a notable decrease in violence among states (Gat, 2013; Keohane & Nye, 2012, pp. 22–24; Oneal & Russett, 1999; Pinker, 2011). According to these arguments, although not irreversible, social, economic, political, and technological transformations "have made major war obsolete by raising its costs while reducing the incentives for waging it" (Mandelbaum, 1998, p. 34).

Reduction in interstate wars among major powers in the developed world since WWII and the demise of the Soviet Union *vis-à-vis* the United States in 1989 led to the emergence of rosy perspectives about the post-Cold War period, such as the universalization of liberal democratic ideals (e.g., Fukuyama (1989)). Others, however, warned about the unfeasibility of such ideals throughout the world and pointed out the potential of violent intrastate conflicts emerging in line with cultural and ethnic identities in the post-Cold War period (e.g., Mearsheimer (1990), Huntington (1993), Lake and Rothchild (1996)). Particularly Kaplan (2000) depicts a much more pessimistic post-Cold War order in which a peaceful and wealthy liberal international order could only be seen as a utopia. For him (2000, pp. 3–57), the post-Cold War period would be characterized mainly by a new anarchic situation in which demographic and environmental stresses, refugee flows, the spread of diseases, clashes along ethnic, tribal, and religious lines, new forms of warfare, and increasing criminal activities in weak states will be some of the features of "the coming anarchy."

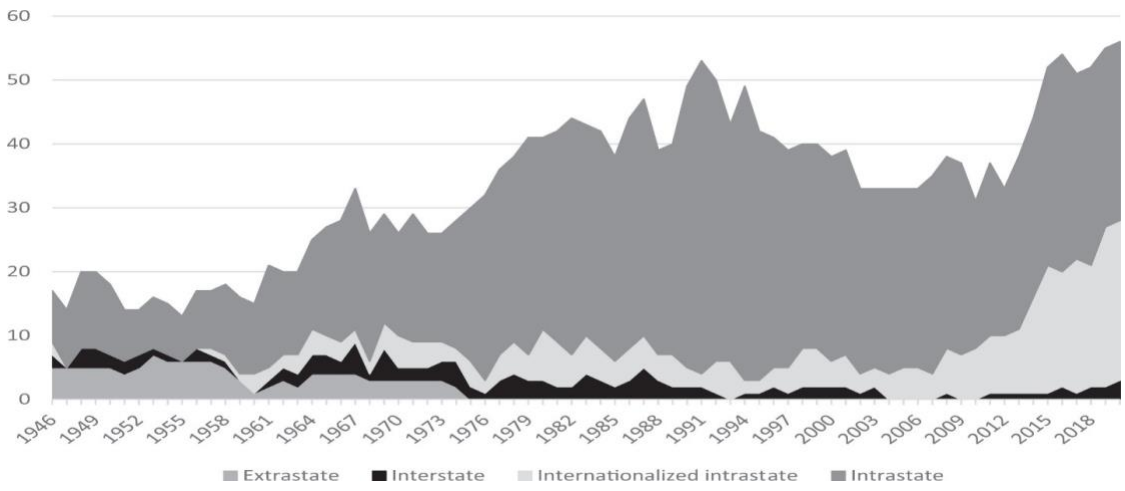

Figure 1: Armed Conflicts by Type, 1946-2020[5]

In addition to the increasing salience of non-conventional themes in the post-Cold War period, such as environmental problems, epidemics, refugees, and criminal networks, some scholars shed light on the changing nature of emerging "new wars" and the role of the Western states in these conflicts (e.g., Kaldor (2012), Mueller (2000), van Creveld (1991), Holsti (2004)). According to Kaldor (2012, p. 1), for instance, "during the last decades of the twentieth century, a new type of organized violence developed, especially in Africa and Eastern Europe," in which mainly civil wars have become a part of the globalization process - the boundaries between internal and external, formal and informal, private and public, state and nonstate actors have become

[5] Source: Pettersson et al. (2021). Organized Violence 1989–2020, With a Special Emphasis on Syria. *Journal of Peace Research*, *58*(4), p.812. It is important to note that this dissertation project only examines state-based armed conflicts, in which the use of armed force between two parties over an incompatibility of government and/or territory, at least one of which is the government, results in at least 1000 battle-related deaths in a calendar year and excludes extrastate/extra-systemic (an armed conflict between a state and a non-state actor outside of the territory of that state) and interstate wars. For more information on these terms/concepts, please refer to the UCDP definitions webpage: (https://www.pcr.uu.se/research/ucdp/definitions/). See also Palik et al. (2020). *Conflict Trends: A Global Overview, 1946-2019* (PRIO Paper). Oslo. Peace Research Institute.

blurred. These ‘new wars’ are mainly distinguished from the ‘old wars’ due to their goals, methods, and finances. In other words, these wars are fought with the methods of guerilla warfare along with particularistic identities rather than political or territorial considerations and are financed mainly by war economies (Kaldor, 2012, pp. 7–10).

These scholarly debates have reached a point where even the claim that post-Cold War conflicts are fought along with ethnic and religious identities was considered dubious by some (e.g., Mueller (2000); cf. Mearsheimer (1990), Huntington (1993), Lake and Rothchild (1996), Wucherpfennig et al. (2012)). Instead, the increasing criminal activity and brutality of non-state actors, such as paramilitaries, gangs, and criminals, whose primary goal is to plunder, loot, and pillage rather than pursue specific political ends, were strongly emphasized.[6] The wars of Bosnia, Croatia, and Kosova, and the Rwandan genocide, for instance, came to the fore as instances in which several paramilitary organizations fought along with formal armies but without considering the distinction between civilians and combatants and by participating in criminal activities to finance themselves (Mueller, 2004, pp. 88–100). Regarding the changing nature of these conflicts, van Creveld (1991) demonstrates the transformation of conventional

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[6] In his well-known piece, Mueller (2000) argues that the concept of ‘ethnic warfare’ does not accurately depict the true nature of conflicts in the Balkans and Rwanda during the 1990s. According to him, instead of each member of ethnic groups, only a small number of opportunistic groups conduct violence and atrocities with the guidance of political leaders in these conflicts. Rather than so-called historical animosities between ethnic groups -as Kaplan (1991) claims, these conflicts are fought by criminals for “banal” reasons under the supervision of opportunistic political leaders. Regarding the manipulative role of political elites in igniting such armed conflicts along ethnic lines, Kaufman (2006) particularly points out how political leaders use social phenomena with “symbolic” value, such as historic stigmas, narratives, events, catastrophes, et cetera, to mobilize masses to take arms against other groups, particularly in the cases of Sudan and Rwanda. For more information about how political leaders manipulate the masses to participate in such conflicts along ethnic lines, please see: Kaufman (2006). Symbolic Politics or Rational Choice? Testing Theories of Extreme Ethnic Violence. *International Security, 30*(4), 45–86.

warfare of the industrial age by applying the Clausewitzian understanding of warfare to such conflicts. Conventional warfare is transformed into a new one characterized by the blurred distinction between civilians and combatants, the rising role of non-state actors as warring parties, the increased use of nonconventional warfare methods, and the unpolitical goals of rebels. By emphasizing the increased brutality against civilians in wars, Shaw (2008) particularly sheds light on how an extreme form of one-sided violence, namely genocides and genocidal acts, has become a military method of such "degenerative" wars in the twentieth century.

Parallel to the changing nature of conflicts, scholars mainly shed light on how changes in social, political, economic, and technological areas have transformed the way of warfare in these emerging conflicts (e.g., Boot (2006), Freedman (1998), Hammes (2006)). According to this, despite being successful on battlefields, conventional warfare of the industrial age is no more likely to yield desired political outcomes in the contemporary world since they require a new military understanding. For Lind et al. (1989) and Hammes (2006), rather than achieving a decisive military victory in a short time on battlefields, these wars are "the fourth-generation warfare" in which the ultimate aim of non-state actors is to break the resolve and morale of the decision-makers and populations for their ends by waging indiscriminate and low-intensity lethal violence over an extended period of time in confrontations. While Hoffman (2007) calls attention to the "hybrid" nature of these wars, namely the use of multiple and flexible strategies and tactics by adversaries, Huber (2004) points out how conventional and unconventional forces are employed in a coordinated manner by warring parties in these "compound" wars. Groll-Taari and Assa (2007), on the other hand, stress the "diffused" nature of these wars in which conventional armies do not

have clear battle lines to fight. For them, what the world has instead experienced is a new form of warfare in which the battlefield has become the whole country, and each individual has become a potential enemy. This argument is in line with Smith (2007)'s claim that we have been dealing with "war amongst the people."[7] According to his argument, contemporary wars are not a direct confrontation between protagonists as the logic of industrial war dictates; instead, they are generally fought by non-state actors among civilians with unsophisticated arms over an extended period of time.

Such characteristics of wars in the post-Cold War period raised the question of what is "new" with regard to these wars – Is it all about their changing nature or just their military form? For Rice (1990) and Holsti (2004), wars in the post-Cold War period are fundamentally different from the conventional and nuclear war concepts; instead, what the world face is a new "third kind" of warfare. While Rice (1990) emphasizes that the locus of these wars is the underdeveloped world in which they are characterized by poor rural economic conditions and fundamental social problems unresolved and suppressed by authoritarian governments, Holsti (2004) sheds light on a similar dimension of these wars: the incompatibility of the territorial boundaries and national identities and the weak and illegitimate state structures of the colonial legacy

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[7] According to Smith (2007), the conventional warfare paradigm of the industrial age is no longer sufficient to explain contemporary wars since 1945 due to the mutually assured destruction conditions - MAD- between the nuclear superpowers. With the end of the Cold War, the world started to witness a newly emerging type of warfare: "war amongst people," in which clear front lines among conventional armies no longer exist. Instead, states fight with non-state actors to sustain order within their territories or abroad. For him, the main problem of decisionmakers in such conflicts is not to know how to utilize the military force – conventional forces are deployed to situations they are not prepared to fight. That is to say, political leaders generally do not provide (i) clear strategic objectives about what armies should achieve with their conventional forces in situations of unconventional warfare and (ii) suitable as well as sufficient forces to reach those ends.

make such newly independent states in the developing world much more conducive to this new type of war.

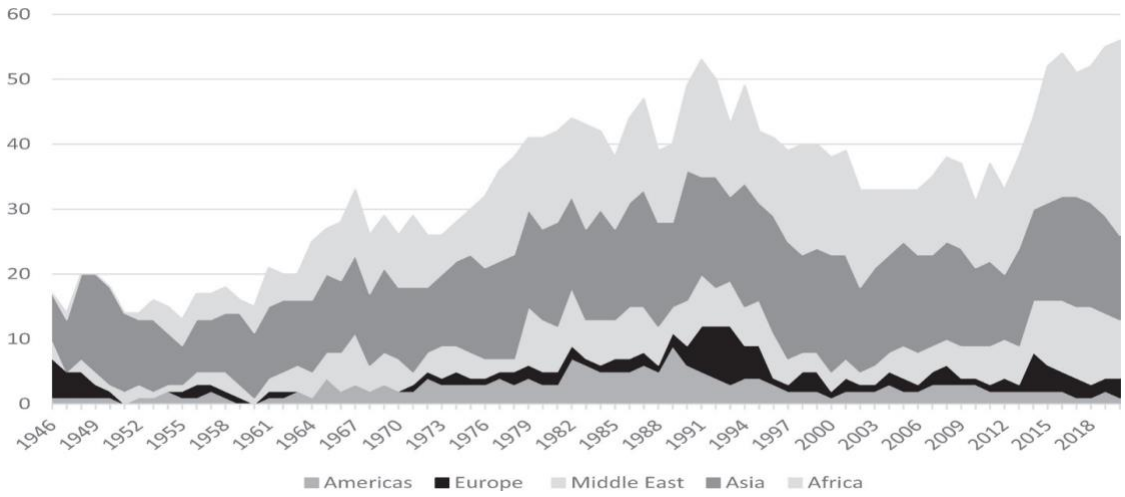

Figure 2: Armed Conflicts by Region, 1946-2020[8]

For those who reject the conceptualization of new wars, on the other hand, all the unique characteristics of these new wars, namely their apolitical aims, extreme violent means, and criminal participants, could be found in any war in history; therefore, there is nothing changed about the nature of these wars (Keegan, 1993)[9], but just a few

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[8] Source: Pettersson et al. (2021). Organized Violence 1989–2020, With a Special Emphasis on Syria. *Journal of Peace Research, 58*(4), p.811.

[9] In his seminal book, A History of War, Keegan (1993) depicts war as a psychological and cultural phenomenon rather than the Clausewitzian "continuation of politics by other means." From his perspective, each war concept and strategy mirror the cultural understanding of human nature, violence and conflict in that society, and thus there is no universal idea of warfare. To some extent, the Clausewitzian distinction between "real war" and "true war" is the reflection of the difference between idealized Western warfare and unique cultural understandings. Therefore, making such a comparison between old and new wars is totally meaningless since it can reasonably be expected that the Clausewitzian conventional warfare is insufficient to explain conflicts in non-Western settings emanating

particular military forms amalgamated under the rubric of the "new wars" concept (Henderson & Singer, 2002; Kalyvas, 2001).[10] Therefore, what is needed instead is to focus on the root causes of these wars from the perspective of problematic state and nation-building processes in the developing world – weak and illegitimate states, controversial national identities, and territorial disputes within and between states (Kennedy & Waldman, 2014; Newman, 2014).

1.2 The Puzzle & Research Questions

Even though some stress that weak states, illegitimate and authoritarian governments, problematic national identities, and territorial disputes are all related to the colonial legacies of these newly independent states in the developing world (e.g., Newman (2014), Kennedy and Waldman (2014), Rice (1990), Holsti (2004)), I argue that their arguments miss some of the notable features of these emerging wars. Compared to the past, these wars show distinct and various violence trends in terms of intensity, duration, termination, the intervention of external actors, and the number of civilian deaths and displaced people. For instance, these civil wars have become much more prolonged and less conducive to ending with a decisive military victory due to the

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mainly from non-rational factors, such as emotional motivations or culture. For more information regarding how warfare is culturally understood in different societies and time frames and how the Clausewitzian conventional warfare is limited for explaining war phenomenon, please compare: van Creveld (1991). *The Transformation of War: The Most Radical Reinterpretation of Armed Conflict Since Clausewitz*. Free Press.; Keegan (1993). *A History of Warfare*. Vintage Books. (Introduction, Chapter 1 & Conclusion).

[10] It is important to note that although Henderson and Singer (2002) agree with Kalyvas (2001) about the similarity of old and new civil wars throughout history and the redundancy of the "new wars" concept due to its unclear and biased definition, they (2002, p. 167) still argue that the conceptualization of the post-Cold War period civil wars under the rubric of "new wars" could provide useful insights with regard to civil wars in general, such as the changing locus of war from the developed to the developing world, the increasing number of intrastate wars compared to interstate ones, and the impact of the problematic state and nation-building processes on civil war onsets in the postcolonial world.

heightened criminal activity, the increasing interference of external actors, and the growing presence of extremist groups. In addition to these aspects, the amount and form of violence against non-combatants and the number of battle deaths and displaced people have increased much more than during the Cold War period (Einsiedel et al., 2014; Einsiedel et al., 2017).

More precisely, while the post-World War II civil wars were mainly class-based conflicts aiming to start revolutions by mobilizing low classes, the post-Cold War civil wars were ethnicity-based separatist conflicts. Since the turn of the millennium, however, the world has been experiencing a new wave of civil war in which religion and technology play pivotal roles. According to Walter (2017, p. 470), the post-millennium civil wars are fought mainly in Africa, East Asia, and the Middle East, where radical Islamist groups pursue a transnational religious goal rather than political and territorial ones, as was not the case in previous civil wars - the unity of the Muslim ummah (the Islamic community) under the rule of a khalifa (the supreme leader of the Islamic community). Furthermore, these civil wars are much more protracted, resistant to peace settlements, contagious to neighboring countries, and have an increased number of veto players, deeply divided social structures, and risk factors associated with existing civil wars, such as the domino effect and refugee flows.

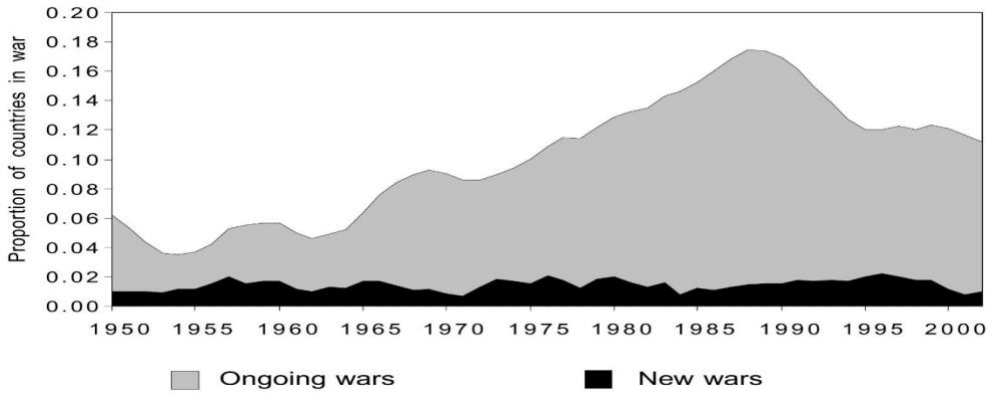

Figure 3: Worldwide Incidence of Civil Wars, 1950-2002[11]

Although civil wars were considered to be the new normal of the post-Cold War international order, some particularly point out that the global incidence of civil wars has increased over time since the end of World War II (e.g., Fearon (2004, 2017), Fearon and Laitin (2003), Collier et al. (2003)). According to them, the reason behind such an increased incidence of intrastate wars is not about the increased number of civil war onsets but their decreasing level of terminations. In other words, since 1945, the number of civil war onsets (2.2 per year) has steadily outweighed the number of civil war terminations (1.77 per year). Since the end of World War II, the duration of ongoing civil wars has increased steadily due to two major factors: decreased levels of civil war termination *vis-à-vis* the relatively stable number of civil war onsets. In this period, for instance, the average duration of civil wars has been more than twenty years (Collier et

[11] Source: Hegre (2004). The Duration and Termination of Civil War. *Journal of Peace Research, 41*(3), p.244. For a much more recent trend of global civil war incidence, please see: Fearon (2017). Civil War & the Current International System. *Daedalus, 146*(4), p.22. It is important to note that although Fearon (2004)'s analysis is based on Correlates of War (COW) dataset, it shows a similar trend to the analysis of Hegre (2004), which is based on the Uppsala Conflict Data Program (UCDP), in terms of civil war duration.

al., 2003, pp. 93–97; Fearon, 2004, pp. 275–276; 2017b, pp. 19–22; Fearon & Laitin, 2003, pp. 77–78) (see *Figure 3*).[12] In brief, the increased incidence of civil wars since 1945 can be explained by protracted intrastate wars in which the gap between the onset and termination of civil wars has increased steadily over time despite conjunctural ups and downs.

Even though scholars studying civil wars generally focus on the causes of civil war onset and termination dynamics, increased civil war durations in the post-World War II period deserve scholarly attention because of three primary reasons (Brandt et al., 2008, p. 416; Hegre, 2004, pp. 243–244): First, resolving protracted civil wars has become another critical task for policymakers in addition to preventing new ones from starting. Given the detrimental effects of protracted civil wars on human, national, and international security (Collier et al., 2003, pp. 1149; Iqbal, 2006; Kang & Meernik, 2005; Thyne, 2016) -the ongoing Syrian Civil War since 2011is an illustration of this, it is clear that shortening the duration of civil wars has become an urgent policy issue alongside preventing them from starting. Second, as mentioned earlier, interstate wars have become a rare phenomenon in state relations, whereas intrastate wars have become much more prevalent social phenomena, not because of the increased number of onsets

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[12] According to Collier et al. (2003, pp. 93–97), although the decolonization process in the 1950s and 1960s, as well as the collapse of the Soviet Union in 1989, have resulted in the involvement of newly independent states in the international system, characterized by weak states and economic structures, identity and territorial issues within and around their borders, and thus much more conducive to the civil war initiation risks, those newly independent states did not substantially change the stable trend of civil war onsets. Moreover, although the international community took a leading role in terminating intrastate wars in those states via peacekeeping missions in the post-Cold War period, they were not able to change the overall declining trend of civil war terminations. Therefore, for Collier et al. (2003, p. 97), the increasing incidence of civil wars despite conjunctural ups and downs since World War II could be explained by changes in the "self-sustaining level" of intrastate wars: "The declining global risk of rebellion and the lengthening duration of rebellion have together changed the self-sustaining global incidence of civil war."

but because of the protracted nature of these wars (Collier et al., 2003; Fearon, 2004, 2017; Fearon & Laitin, 2003). Thus, the earlier conclusion of these civil wars would mean a decrease in the number of civil wars and, consequently, a general decline in the total number of armed conflicts worldwide. Last, as is discussed in the civil war literature, the duration of civil wars is associated with the outcome of civil wars (Brandt et al., 2008; DeRouen & Sobek, 2004; Mason et al., 1999; Mason & Fett, 1996). That is to say, the longer a civil war is fought by the protagonists, the more likely it is to be ended by a negotiated settlement rather than a military victory (see *Figure 3* and *Figure 4*). According to Fearon (2004, p. 276), for instance, "[c]ivil wars last a long time when neither side can disarm the other, causing a military stalemate. They are relatively quick when conditions favor a decisive victory." Therefore, given that changes in civil war durations give us information about how civil wars might end, analyzing civil war durations can provide valuable information about how to bring an ongoing civil war to an end from a policy perspective. Despite having increased scholarly attention in recent years, given all these three factors mentioned above, civil war dynamics -duration and outcomes- are a critical research area, in addition to studying their onsets and terminations.

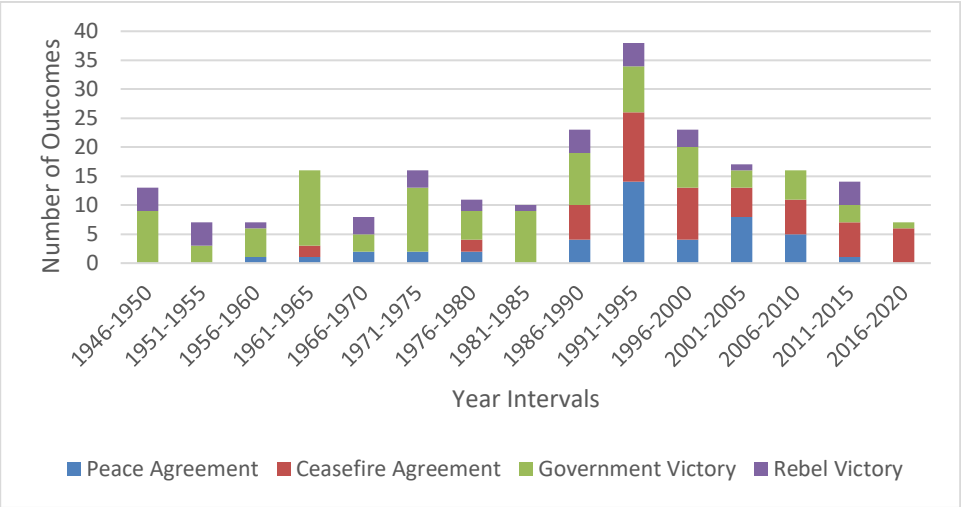

Figure 4: Civil War Outcomes, 1946-2020[13]

Given the fact that Africa, Asia, and the Middle East have been experiencing considerable political destabilization within and between their territories, with mass uprisings to topple long-standing authoritarian regimes, foreign interventions, coups d'états, violent radical groups, *et cetera*, what factors are likely to explain the increased prevalence of prolonged civil wars in those regions? What factors help us to understand why some countries in Africa, Asia, and the Middle East have remained plagued by protracted civil wars, whereas others have been able to overcome these substantial levels of domestic unrest more quickly? For instance, Chad and Sudan have struggled with prolonged civil wars between their northern Arab-Muslims and southern non-Arab Christians and animists since their independence from France and Great Britain, respectively. Ethiopia and Eritrea, however, have experienced shorter wars within and

[13] This figure was created by using the UCDP Conflict Termination Dataset v.3 (2021), 1946-2020 and Codebook (2021) (see: https://ucdp.uu.se/downloads/index.html#termination).

between their borders, particularly around the Tigray region. Similarly, the Arab Spring resulted in nationwide domestic political violence in a vast number of countries, including Egypt, Tunisia, Syria, and Libya. Nevertheless, only a few countries, namely Syria and Libya, have experienced nationwide domestic political violence sustained into what has become a protracted civil war, in many ways still with no end in sight. While a host of social, political, and economic factors undoubtedly contributed to these diverse outcomes mentioned above, could climate change-induced environmental problems, particularly variations in the timing of acute water insecurity and persistent droughts across these countries during existing upheavals, help us explain the different pathways and outcomes these states took?

In 2014, the Pentagon's *Quadrennial Defense Review* (p.8) designated climate change as a "significant challenge for the United States and the world at large" and described the ramifications of climate change as a "threat multiplier" in which they "will aggravate stressors […] such as poverty, environmental degradation, political instability, and social tensions conditions that can enable terrorist activity and other forms of violence." Similarly, former U.S. president Barrack Obama shed light on climate change's security dimension in his speech to graduating cadets at the U.S. Coast Guard Academy in 2015: "Climate change constitutes a serious threat to global security, an immediate risk to our national security, and, make no mistake, it will impact how our military defends our country" (Gambino, 2015). More recently, during a debate on the impact of climate change on international peace and security in the U.N. Security Council, the eighth U.N. Secretary-General Ban Ki-moon clearly pointed out the climate-conflict nexus: "Extreme weather events continue to grow more frequent and intense in rich and poor countries alike, not only devastating lives, but also

infrastructure, institutions, and budgets - an unholy brew which can create dangerous security vacuums" (UN News, 2011). As clearly mentioned in these documents and statements, climate change-induced environmental problems and their adverse security consequences have also begun to gain increasing attention from policymakers beyond the scholarly world.

The incidence and severity of *anthropogenic*[14] climate change-related hazards, such as extreme heat events, high precipitation levels, and persistent droughts, have increased globally in the last fifty years. Their adverse effects are most felt among socially and economically marginalized groups in the developing world, such as Africa and Asia. Such environmental hazards lead to food insecurity, the disruption of social services, the loss of livelihoods, the decline in well-being, involuntary migrations, *et cetera*, mainly among vulnerable groups, such as the elderly, women, children, and the poor. According to the Intergovernmental Panel on Climate Change (IPCC)[15] (2022, p. 12), "[a]pproximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change" and just "[b]etween 2010–2020, human mortality from floods, droughts and storms was 15 times higher in highly vulnerable regions, compared to regions with very low vulnerability." In a report concerning water security as a human

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[14] It refers to the human activities generating environmental pollutants on the Earth system. For more information regarding the concept of anthropocene, the scholarly debate about its definition and start date, and major perspectives and critiques on it, please see: Malhi (2017). The Concept of the Anthropocene. *Annual Review of Environment and Resources*, *42*(1), 77–104.

[15] Established in 1988 as an intergovernmental body of the United Nations, *Intergovernmental Panel on Climate Change* (IPCC) is internationally recognized authority on climate change. It helped constructing the *UN Framework Convention on Climate Change* (UNFCCC) (1992) and the *Paris Agreement* (2015), and won the *Nobel Peace Prize* in 2007. The IPCC aims to provide scientific knowledge about causes, impacts, and solutions of anthropogenic climate change. To this end, it publishes periodical systematic reviews of the relevant literature with the participation of many leading climate scientists. So far, the IPCC has published six "Assessment Reports," and the completion of the sixth report took seven years (2015-2022). For more information about the IPCC's history, please see: (https://www.ipcc.ch/).

right, the World Conservation Union also warns that "if current trends persist, by 2025 two-thirds of the world's population will be living with serious water shortages or almost no water at all" (Scanlon et al., 2004, p. 1).

Given the interaction of social, economic, and political problems with climate change-related hazards, vulnerable groups can be expected to face more complex problems in the near, mid, and long term. For instance, almost half of the world's population has been struggling with severe water insecurity, and as global warming exceeds 1.5°C, droughts are expected to severely affect intrastate conflicts by increasing the vulnerability of marginalized groups (IPCC, 2022, pp. 8–20). More precisely, from 1970 to 2020, droughts account for 7% of all disasters worldwide, and 34% of all disaster-related deaths result from droughts, mainly in Africa (IPCC, 2022, p. 555). Considering that 55-62% of the workforce makes a living from the agricultural sector and that 95% of the agricultural product is dependent on precipitation in Sub-Saharan Africa, it is expected that many in rural Africa are severely vulnerable to adverse impacts of climate change-induced environmental problems on social, economic, and political issues due to intense, frequent and prolonged heat waves and droughts (IPCC, 2022, pp. 1289–1290).[16]

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[16] In its Sixth Assessment Report, the Intergovernmental Panel on Climate Change (2022) provides detailed information about how climate change-induced environmental problems affect water security in Africa through droughts. For more information, please see: IPCC (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Cambridge & New York. (Summary for Policy Makers, Chapter 4: Water, Chapter 9: Africa). For detailed and comprehensive information regarding the causes and consequences of climate change and the climate-conflict nexus, please see: Letcher (2021). Why Discuss the Impacts of Climate Change?. In T. M. Letcher (Ed.), *The Impacts of Climate Change: A Comprehensive Study of Physical, Biophysical, Social, and Political Issues* (pp. 3-17). Elsevier.; Loucks (2021). Impacts of Climate Change on Economies, Ecosystems, Energy, Environments, and Human Equity: A Systems Perspective. In T. M. Letcher (Ed.), *The Impacts of Climate Change: A Comprehensive Study of Physical, Biophysical, Social, and Political Issues* (pp. 20-50). Elsevier.; Rosvold (2021). Security Implications of

Given the interactions between climate change-induced environmental problems and social, economic, and political problems, particularly intrastate conflicts, this dissertation aims to shed light specifically on this interaction: why do some civil wars take longer to end compared to others, and how do these civil wars end? Do environmental problems have an impact on civil war dynamics, and if so, by which causal mechanisms do environmental problems impact civil war dynamics? The goal of this dissertation is to explore whether environmental problems, particularly water insecurity, are one of the essential factors contributing to the dynamics of civil wars. Specifically, this dissertation investigates whether and how water insecurity contributes to the civil war durations and outcomes.

1.3 Theoretical Framework: Broadening & Deepening of Security

With the devastating experiences of World War I and II and the possibility of nuclear annihilation during the Cold War, policymakers have embraced a realist concept of security throughout the 20th century. According to this traditionalist perspective, which relies on the realist theory of IR, the concept of security is directly related to the survival of states in the anarchic international system. In the anarchic system where there is no supranational security and justice provider to all states, states should maintain their existence against external threats by self-help. Although it is more likely to cause insecurity by generating arms races and security dilemmas among states, the traditional security perspective recommends military solutions to potential threats from external actors against states' core values of sovereignty and territorial integrity (Miller, 2001,

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Climate Change: The Climate-Conflict Nexus. In T. M. Letcher (Ed.), *The Impacts of Climate Change: A Comprehensive Study of Physical, Biophysical, Social, and Political Issues (pp. 465-478)*. Elsevier.

pp. 13–18). It is evident that such a traditional conceptualization of security presumes that security threats can be solely military issues caused by external states, and that states themselves are the sole referent object of security. In this regard, non-military threats and non-state actors are not seen as essential elements of the security concept.

1.3.1 Human Security: Pioneering Studies & Foundations

As the Cold War ended in the late 1980s, the limits of such a traditional security concept in understanding the emerging non-military security issues, such as environmental degradation, resource scarcities, natural disasters, and infectious diseases, had become much clearer. By shedding light on such emerging security threats, Ullman (1983) underscores that the threat perception has moved away from a military-oriented perception to a non-military one and that the referent object of security has become individuals and social groups instead of states. In the same years, Buzan (1983, pp. 33–34) also highlighted the importance of individual security by arguing that states themselves could be a security threat to their own citizens instead of being a sole security provider in exchange for giving up some (*Lockean*) or all (*Hobbesian*) of their rights to states. According to this, although states are still the primary security providers for people, they can also become a security threat when pursuing totalitarian policies. Moreover, individuals are not exclusive security consumers; instead, they can become security threats against states under certain circumstances. Although these preliminary studies are still state-centric in understanding the concept of security, both Ullman (1983) and Buzan (1983) paved the way for conceptualizing *human security* by pointing out non-military threats and individuals as the referent security objects.

Towards the end of the Cold War, criticisms against the realist conceptualization of security have become more pervasive among policymakers and scholars. In 1987,

known as the *Brundtland Report*, World Commission on Environment and Development, led by the former Norwegian Prime Minister Gro Harlem Brundtland, published a special report on the need to consider environmental issues to create a sustainable development path. According to this report, *Our Common Future*, our century requires a sustainable development path by addressing economic inequalities and environmental problems through a multilateral governance model to achieve humanity's common goals. In the academic field, Renner (1988) shed light on how narrow conceptualization of security and overemphasis on military measures endanger states' economic and environmental security by shifting the necessary investments only to the military field. According to this, states' financial stability comes under a heavy burden due to the vast investments spent on arms races and military buildups. Thus, environmental problems affecting human lives are not paid sufficient attention to, and necessary investments are not made for coping strategies by policymakers. Similarly, Mathews (1989) emphasized the adverse effects of anthropogenic economic activities on the environment: the existing economic production model cannot be sustained since the negative impacts caused by the existing economic production model have reached a point far above the absorption capacity of the environment. Therefore, any insistence on the existing economic production model will threaten the security of states, both the developed and developing ones, through mass migration, low economic production, and domestic unrest in urban areas.

Rather than criticizing huge investments in military spending and the existing economic production model, others (e.g., Myers (1989), Westing (1989)) point out how environmental issues could undermine national and international security in direct and indirect ways. Even though environmental issues have not traditionally been treated as

a part of states' national security, Myers (1989) highlights how environmental issues undermine state security in the Philippines, Egypt, and Mexico, which are vital countries to the national interests of the United States. Instead of emphasizing the adverse effects of environmental problems on social stability, Westing (1989) approaches environmental problems from a *human-centered perspective*. According to this, a human-centered perspective requires a comprehensive understanding of security. It covers not only state security in the traditional sense but also non-military issues such as environmental problems. By addressing both political and non-political issues in the security field, a human-centered perspective provides "comprehensive security" for all human beings. As Westing (1989, pp. 129–130) underlines, states cannot ensure security only by protecting their citizens against foreign threats. Additionally, they have to provide comprehensive security by eliminating environmental problems affecting their citizens' well-being and welfare. These requirements necessitate sustainable development policies and inter-state cooperation for comprehensive human security since environmental problems affect all humanity in the long term, regardless of borders.

Despite such an increased emphasis on non-military security issues in the immediate post-Cold War period, others (e.g., Walt (1991)) insist on the narrow definition of security for conceptual clarity in the security field. According to Walt (1991, p. 213), "defining the field in this way would destroy its intellectual coherence and make it more difficult to devise solutions to any of these important [military] problems." For the opponents of the broadening security concept, security issues must be related only to military threats associated with state survival. Although non-military

problems started to be seen as security issues in the immediate post-Cold War period, states were still considered the sole referent object of security.[17]

In 1994, however, the United Nations Development Programme (UNDP) framed and directed the ongoing debate about whether individuals should be considered a referent security object in addition to states by publishing a special report on human security. According to this report (UNDP Team, 1994, p. 22), "we need another profound transition in thinking – from nuclear security to human security." With the end of the Cold War between antagonistic superpowers in 1989, the narrow conceptualization of security based on state survival under the threat of nuclear annihilation has not been seen as sufficient in the emerging new international system. Many newly independent developing states have become members of the emerging international system. Their security concerns have not been identical to those of the superpowers during the Cold War since the conflict trend has become much more intrastate-oriented. Instead of concerning military issues, these developing states are mainly interested in "human life and dignity," or the well-being of individuals, concerns related to food security, income level, identity issues, human rights violations, *et cetera*. Undoubtedly, such a change in the international system has required a new understanding of security centered around people rather than states. Thus, the concept of human security is constructed as a universalist understanding of security in which the well-being of individuals is seen as dependent on the actions of both developed and developing states. The ultimate goal of the human security perspective is to create

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[17] For more information on the "traditional progressive logic" that takes non-military issues into account but continues to see the state as the central security referent object, please see: Wæver (2007). Securitization and Desecuritization. In B. Buzan & L. Hansen (Eds.), *International Security* (pp. 66–98). SAGE. (pp. 67-72).

sustainable human development through early preventive efforts against all kinds of threats to human well-being.

In this respect, the UNDP Team (1994, p. 23) defines human security as "safety from [..] chronic threats as hunger, disease and repression" and "protection from sudden and hurtful disruptions in the patterns of daily life -whether in homes, in jobs or in communities." Although the concept mainly relies on "freedom from want" and "freedom from fear," the UNDP Team (1994, pp. 24–33) clarifies the human security concept by elaborating its seven major components, namely (i) economic security, (ii) food security, (iii) health security, (iv) environmental security, (v) personal security, (vi) community security, and (vii) political security. As is evident, compared to the traditional perspective, which narrowly approaches security in a way that only states and military issues are taken into account, the human security concept approaches security from an all-encompassing perspective in which individuals and nonmilitary issues are also considered the components of security. Furthermore, according to the report (1994, p. 34), "the real threats to human security in the next century will arise more from the actions of millions of people than from aggression by a few nations," and these threats will be more likely to appear in non-military formats, namely population growth, economic inequalities, migration flows, environmental problems, drug trafficking, and terrorism.

In his influential book, *Development as Freedom*, Amartya Sen (1999, pp. 3–5) particularly points out how "freedom from want" and "freedom from fear," the major components of the UNDP Team's definition of human security, are interconnected to achieve developmental goals by generating "free agency" in which individuals can realize their potential by pursuing their own choices. According to this, instead of being

free after reaching a certain level of development, people need to have a set of interrelated freedoms in order to reach that level of development, namely "economic opportunities, political liberties, social powers, and the enabling conditions of good health, basic education, and the encouragement and cultivation of initiatives" (Sen, 1999, p. 4). People can reach a certain point of development by realizing their own potential by having these freedoms.[18] As Sen (1999, p. 11) succinctly puts it, "with the adequate social opportunities, individuals can effectively shape their own destiny and help each other. They need not be seen primarily as passive recipients of the benefits of cunning development programs." In Sen's perspective, freedoms are simultaneously seen as the means and the ends of development; furthermore, empowering people is considered critical in achieving such developmental goals.

Based on Sen's formulation of "development as freedoms," the Commission on Human Security (2003, p. 4) published a special report, *Human Security Now*, in which the human security concept is defined as ''protect[ing] the vital core of all human lives in ways that enhance human freedoms and human fulfillment.'' According to the report, the vital core of human security includes ''freedom from want, freedom from fear and the freedom of future generations to inherit a healthy natural environment" (Commission on Human Security, 2003, p. 4). Considering human rights and development in conjunction, such a conceptualization of human security aims to confront all kinds of threats against human life by empowering people to increase their

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[18] According to Sen (1999, pp. 10–11), freedoms that create the "free agency" which is necessary to reach a certain level of development can be considered under five categories: (i) "political freedoms," (ii) "economic facilities," (iii) "social opportunities," (iv) "transparency guarantees," and (v) "protective security." For more information, please see: Sen (1999). *Development as Freedom*. Oxford University Press.

resiliency towards events beyond their control. Given its human-centered nature and all-encompassing perspective, the human security concept proposes contextual solutions to the problems affecting human lives. Contrary to the traditional security perspective, which is unilateral and centered on state interests, the human security perspective focuses on multilateralism and the common interests of human beings (Commission on Human Security, 2003, pp. 4–11). It is important to note that state security and human security are not mutually exclusive concepts; instead, they mutually reinforce each other in a way that one cannot exist without the other. That is to say, while human security requires stable and strong state institutions to provide a conducive environment where people can realize their potential, state survival also requires human security to be secured and maintained. As Weinert (2009, p. 155) succinctly puts it, "though people are human security's *immediate* referents and beneficiaries, the state is its *ultimate* referent and beneficiary" since "by encouraging investment in human resources, human security complements, not displaces, state security." Thus, "secure peoples produce safe and stable communities, which in turn protect and brace states" (Weinert, 2011, p. 31).

With the clarification of the human security concept by the 1994 United Nations Development Programme report and the subsequent conceptual elaborations, in which both individual and non-military issues are considered the core security components, security scholars (e.g., Miller (2001), Paris (2001)) started to question the analytical utility of the human security concept due to its all-encompassing approach toward security issues, be they military or nonmilitary. With a simple logical interpretation, the opponents claim that a concept trying to explain everything can essentially explain nothing. While some (e.g., Paris (2001)) claim that the strength of the human security concept lies in making any issue of human well-being a security problem, others (e.g.

Miller (2001)) argue that the spectrum of security issues should be narrowed to include only issues related to violent conflicts.[19] In this respect, for instance, Paris (2001, p. 96) argues that "human security may serve as a label for a broad category of research in the field of security studies that is primarily concerned with non-military threats to the safety of societies, groups, and individuals." That is to say, with the emergence of non-state actors and non-military issues in the post-Cold War period, the human security concept can provide essential insights regarding the "broadening" of security actors, namely groups and individuals, and the "deepening" of security issues, such as environmental problems, resource scarcities, uncontrolled population growth, economic inequalities, identity issues, *et cetera* (Paris, 2001, pp. 97–98). In contrast to such arguments emphasizing the utility of the human security concept, Miller (2001), as Walt (1991) did, suggests that non-military issues could be a part of the security field only if such issues are directly related to the risk of armed conflicts. In other words, "national security debate should continue to focus on threats of organized violence [...] to national core values, but the complex relations between peace and such threats should be a major

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[19] As is clearly expressed in the UNDP Team (1994) report, the human security concept includes two significant approaches toward security: (i) "freedom from fear" and (ii) "freedom from want." While the freedom from fear approach underlines the physical security of individuals against conflicts and violence, the freedom from want approach particularly highlights the developmental dimension of human security, such as economic security, food security, environmental security, et cetera. In the policy world, these two approaches are represented by two middle powers, namely Canada and Japan. Canada supports that the human security perspective should focus on the physical security of people through the "responsibility to protect". In contrast, Japan argues that the human security concept should embrace a more inclusive perspective beyond the freedom from fear approach. Despite these differences, both states underline the roles of multilateralism, international or ad hoc organizations, and the salience of the international society in providing solutions to common problems of human beings. For more information regarding the similarities and differences between the Canadian and Japanese human security perspectives, and the rationale behind these approaches, please see: Bosold and Werthes (2013). Human Security in Practice: Canadian and Japanese Experiences. In T. Owen (Ed.), *Human Security: Volume III: Policy and Advocacy* (pp. 84–101). SAGE.; Liotta and Owen (2006). Why Human Security?. *The Whitehead Journal of Diplomacy and International Relations, 7*(1), 37–54.

focus of inquiry" (Miller, 2001, p. 15). According to this, by limiting the focus of research in such a way, the security field can overcome the narrow viewpoint of the traditionalist security perspective, which focuses only on military threats to state survival, and also the all-encompassing but analytically limited perspective of the human security concept.[20]

1.3.2 Human Security & Environmental Problems

As is evident, the scholarly debate on the redefinition of security revolves around two interrelated topics: (i) whether non-military issues, particularly environmental problems, could be a part of the security field, and (ii) whether the security of individuals should be taken into account in addition to state security. With regard to the climate change-induced problems and their security implications, scholarly arguments can be mainly divided into two broad categories: (i) those who argue that climate change-induced environmental problems are/should not be considered a security issue

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[20] Although such a narrow approach is able to provide practical policy recommendations to policymakers, it is important to note that it is inherently antithetical to the core values and concerns of human security. In this regard, some (e.g., Liotta and Owen (2006, pp. 50–52)) suggest "a threshold-based conceptualization" in order to determine whether any issue can be considered within the scope of human security. Despite its practical solution, it is necessary to integrate the "threshold-based conceptualization" with "an interagent, multisector approach." As Weinert (2009, p. 162) points out, "[…] focusing primarily on threshold criteria to the neglect of other human insecurities that may be less immediately threatening, though more toxic over the long term, might work against human security's objectives. To (possibly) avoid this scenario, it is essential that […] [a]ll relevant actors from all levels (local, regional, national, international, global) must coordinate activities […]." In fact, such an argument sheds light on the "solidarity" dimension of human security in addition the formulation of Sen (1999), mainly consisting of "protection" and "empowerment." For more information regarding the "threshold-based conceptualization" and the salience of inter-actor solidarity among sectors, please see: Liotta and Owen (2006). Why Human Security?. *The Whitehead Journal of Diplomacy and International Relations, 7*(1), 37-54.; Weinert (2009). From State Security to Human Security?. In P. Hayden (Ed.), *The Ashgate Research Companion to Ethics and International Relations* (pp. 151-165). Ashgate.; UNDP Team (2022a). *New Threats to Human Security in the Anthropocene: Demanding Greater Solidarity*. United Nations Development Programme.

and (ii) those who argue that they are/should be a security issue (Baysal & Karakus, 2017, p. 22). According to the first category of scholars, environmental problems cannot be a part of the security field since there is no proven causal relationship between climate change and armed conflicts, be they interstate or intrastate (Buhaug, 2015; Deudney, 1990; Levy, 1995, 1995; Salehyan, 2008, 2014; Theisen et al., 2011). Similarly, the broadening of the security concept toward non-military issues, namely environmental problems, is considered to undermine the analytical clarity of the security field, which focuses on external military threats to the core values of states. Furthermore, efforts to broaden the security field, including environmental problems, are seen as just a rhetorical discourse to increase social consciousness towards environmental problems or a strategic use by security establishments in developed countries, mainly the United States, to protect their bureaucratic interests, which are put into question in the post-Cold War period (Deudney, 1990; Hartmann, 2010; Levy, 1995, 1995; Walt, 1991).

In addition to why environmental problems cannot be a part of the security field, there are also other arguments why they should not be. Based on the *Copenhagen School*'s "securitization" theory, some (e.g., Buzan et al. (1998), Wæver (2007)) argue that the securitization of environmental problems could create more security problems than providing a secure environment for people. According to this, the securitization process through speech acts by elites can pave the way for states to take extraordinary measures to deal with environmental problems leading to the erosion of democracy and human rights in the long run (Buzan et al., 1998; Wæver, 2007). According to the *Copenhagen School*, the environmental sector should not be a part of the securitization process due to adverse political consequences, such as the militarization of solutions. What they instead propose is to address the issue within the ordinary working

mechanism of the economic sector (Wæver, 2007, pp. 79–82). In other words, they suggest making non-military issues, such as environmental problems, a part of the "desecuritization" process: "the shifting of issues out of emergency mode and into the normal bargaining process of the political sphere" (Buzan et al., 1998, p. 4).[21]

Other schools of critical security studies in Europe, namely the *Paris School* and the *Welsch/Aberystwyth School*, also point out how the securitization process is more likely to generate adverse consequences. According to this, the securitization of one field can generate the "insecuritization" of other people and social groups. For the leading figures of the Paris School, Bigo and Tsoukala (2008, p. 2), security is not only about survival but also sacrifice: "the knowledge of who needs to survive, be protracted and from what, also supposes knowing who is sacrificed in this operation." By underlining the importance of survival against existential threats, many security

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[21] According to Oels (2012), the securitization of climate change has not resulted in extraordinary undemocratic measures undertaken by governments to cope with climate change-induced environmental problems as the Copenhagen School argues. Therefore, there is no need to worry about the adverse consequences of the securitization of climate change. What happens instead, as the Paris School points out, is the "climatization" of the security field in which "existing security practices are applied to the issue of climate change" and such "new practices from the field of climate policy are introduced into the security field" (pp. 197-198). In other words, with the acknowledgment of climate change as a threat by security professionals, new security discourses and practices emerge and transform the traditional security field in a way that the security field is climatized. In a similar vein, based on Ulrich Beck's "risk society" theory, Trombetta (2008) demonstrates that environmental problems are subjected to the "riskification" process by Western countries (mostly European Union countries except the US) rather than the Copenhagen School's securitization process, which necessitates extraordinary measures against socially constructed non-military security threats. From the riskification of environmental problems, preventive measures and multilateral arrangements are seen better policy solutions to climate change than reactionary measures and unilateral foreign policies of the traditional security perspective. For more information regarding how environmental problems are approached from the perspectives of the Copenhagen School (securitization), the Paris School (desecuritization and climatization), and Beck's risk society and riskification arguments, please see: Oels (2012). From 'Securitization' of Climate Change to 'Climatization' of the Security Field: Comparing Three Theoretical Perspectives. In J. Scheffran, M. Brzoska, H. G. Brauch, P. M. Link, & J. Schilling (Eds.), *Climate Change, Human Security and Violent Conflict* (pp. 185–205). Springer Berlin Heidelberg.; Trombetta (2008). Environmental Security and Climate Change: Analysing the Discourse. *Cambridge Review of International Affairs, 21*(4), 585–602.

perspectives miss the adverse consequences of the securitization process on other people and social groups. In this regard, Booth (1991, p. 319) argues that “true (stable) security can only be achieved by people and groups if they do not deprive others of it.” By examining the Indian case, for instance, Boas (2014) sheds light on how the framing of environmental problems by the Global North within the security field generates insecurity and threat perception in the Global South. According to this, framing climate change-induced environmental problems by associating them with armed conflicts in the security field is seen as a kind of strategy against the Global South. Such a strategy is considered a pressure on mitigation efforts to reduce the adverse consequences of climate change by compromising the Global South's developing economies without acknowledging the Global North's responsibility. Furthermore, given their colonial past, developing states are reluctant to make necessary mitigation efforts for climate change based on security arguments since such arguments are considered disrespectful to their core state values (Boas, 2014, pp. 152–155). Contrary to what the environmental conflict perspective suggests, the Indian government, for instance, considers the same issue around energy security and the wellbeing of individuals, namely human security (Boas, 2014, pp. 155–157). With the securitization of the issue through the environmental conflict perspective, actors in the Global South feel that their national dignity and sovereignty are threatened since they perceive such arguments as strategies for intervention by the Global North into their sovereign rights.

Although those mentioned above state that environmental problems cannot be associated with security for several reasons, others (e.g., Barnett et al. (2010), Baysal and Karakus (2017), Detraz (2011), Trombetta (2008)) advocate framing environmental problems within the security field. According to those who argue that environmental

problems should be studied within the security field, there are two different perspectives regarding how to approach the issue. While the traditional security perspective points out that environmental problems have adverse consequences on national and international peace as a "threat multiplier" (CNA Military Advisory Board, 2007; US Department of Defense, 2014) and thus need to be studied within the security field, the human security perspective emphasizes how people's well-being is negatively affected by environmental problems. According to Detraz (2011, pp. 105–107), the former perspective depicts the "environmental conflict discourse" in which the state is seen as the sole referent object of security, and the state survival is considered the ultimate goal of the security field. Given the alarmist emphasis on "the potential for conflict over resources," the environmental conflict discourse aims to provide "short-term adaptation strategies" for state institutions to deal with the potential risk of state instability (Detraz, 2011, p. 106). On the other hand, the latter perspective, which demonstrates the "environmental security discourse," points out the adverse consequences of environmental problems on the welfare and well-being of human beings. As is apparent, such a discourse is more universalistic in terms of not considering security from a state-centric lens. Instead, the environmental security discourse highlights how environmental problems primarily undermine the safety of individuals rather than state security. Therefore, the environmental security discourse particularly emphasizes the vulnerability of individuals caused by climate change-induced environmental problems. As can be seen, the environmental security discourse mainly approaches environmental problems within the framework of the human security concept and offers long-term solutions to increase the resiliency of individuals against the negative impacts of environmental problems through "a range of governance mechanisms at different scales,

ranging from the local to the global, and involving both state and nonstate actors" (Detraz, 2011, p. 107).[22]

Although the environmental conflict discourse is reviewed in detail in the literature review (*Chapter 2*), its main arguments will be briefly discussed here. Basically, the environmental conflict perspective or discourse deals with the direct, indirect, and conditional negative impacts of environmental problems on state security. More precisely, it examines the effects of climate change-induced environmental problems, such as rising temperatures, changing precipitation levels, and extreme weather events, on the risk of armed conflicts and upheavals. While some argue that climate change can increase the risk of conflicts in direct ways (e.g., Homer-Dixon (1994), Hsiang et al. (2013)), others point out the indirect impacts of environmental

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[22] In 2022, the United Nations Development Progremme (UNDP) team published a new report on human security in which they emphasize the salience of "solidarity" to make people "free from want", "free from fear" and "free from indignity" -a conceptualization of human security based on the arguments of Sen (1999) about "free agency." According to the report (2022a, p. 6), "[s]olidarity recognizes that human security in the Anthropocene must go beyond securing individuals and their communities for institutions and policies to systematically consider the interdependence across all people and between people and the planet." Therefore, reaching these three goals necessitates not only "protection" and "empowerment" of vulnerable and marginalized people and social groups, but also the solidarity of humankind in order to advance human security in the Anthropocene. Through "the eyes of humankind," UNDP Team (2022a, p. 7) argues that "It is imperative to go beyond fragmented efforts, to reaffirm the principles of the founding documents of the United Nations, the Universal Declaration of Human Rights and the UN Charter […]" which are deemed the major components of the human security concept. In brief, the UNDP Team rightly claims that advancing human security requires both protecting and empowering free agency, but solutions to the Anthropogenic problems necessitate working together through "the eyes of humankind." Thus, they add a new pillar to the conceptualization of human security in addition to protection, empowerment, and free agency: solidarity. Nevertheless, as Weinert (2011) emphasizes, making a sharp distinction between "solidarist" and "pluralist" perspectives in human security is an "impasse" since both of them can simultaneously co-exist in particular issue areas as being "thin" or "thick." Instead of considering such perspectives mutually exclusive, it could be more appropriate to think them as a continuum in which they represent instrumental and ideational values within specific issue areas. For more information about the importance of solidarity in advancing human security in the Anthropocene and the ongoing debate between solidarist and pluralist perspectives, please see: UNDP Team (2022a). *New Threats to Human Security in the Anthropocene: Demanding Greater Solidarity*. United Nations Development Programme.; Weinert (2011). Reframing the Pluralist-Solidarist Debate. *Millennium: Journal of International Studies, 40*(1), 21-41.

problems on conflicts, such as rising food prices (e.g., Wischnath and Buhaug (2014)), decreasing economic production (e.g., Bergholt and Lujala (2012), Miguel et al. (2004)), and migration from affected areas (e.g., Brzoska and Fröhlich (2016), Koubi et al. (2018)). There are also others arguing that the impact of environmental problems on the risk of conflicts is mainly determined by social, economic, and political structural problems (e.g., Barnett and Adger (2007), Benjaminsen et al. (2012), Nel and Righarts (2008)). As is clear from this brief review, the environmental conflict discourse/perspective focuses on the negative impacts of environmental problems on state security. In other words, environmental problems deserve attention from policymakers and scholars as they pose a threat to social stability. Therefore, the proposed solutions are short-term palliative policies aimed at ensuring the security of the state. Concerns about improving people's well-being and welfare by offering long-term solutions to environmental problems are not within the scope of the environmental conflict perspective. As Miller (2001) suggests, environmental problems are only considered a security problem to the extent that it concerns state security.

Based on the Copenhagen School's warning about the negative consequences of the securitization of the environmental sector, Detraz (2011, pp. 116–117) and Hartmann (2010, p. 239) highlight that addressing environmental problems only to the extent that they concern state security would undermine the well-being and welfare of vulnerable people and groups in the long run by preventing mitigation and adaptation strategies from being taken in affected areas. Therefore, it is necessary to consider environmental problems in the context of the environmental security discourse/perspective centered on the well-being and welfare of people, rather than the state-centric environmental conflict perspective. As stated above, the environmental

security perspective is a discourse constructed upon the human security concept, basically dealing with all kinds of problems that endanger human life and dignity. The referent security object and main concern here is not states and their survival but individuals and their well-being and welfare. In this respect, environmental problems are considered a part of the security field to the extent that they endanger human security.

Although environmental problems endanger human life by disturbing people's livelihoods, they are examined primarily at the state level in the environmental security literature. In other words, since environmental problems are mainly considered to threaten state security, their impacts on human security and thus individual and local-level analysis have been neglected by scholars (Deligiannis, 2012, p. 84; Elliott, 2015, p. 17; Matthew et al., 2010, p. 15). Such a focus on macro-dynamics at the aggregate level in studies causes the loss of micro-dynamics at the local and individual levels. For this reason, many studies linking environmental problems and conflicts make the causal mechanisms too simplistic and over-reductionist due to ignoring the local and individual-level dynamics. It is clear that in a country where environmental problems are pervasive, it is impossible for every region and individual to be exposed to the same level of negative impacts of environmental problems since the resiliency and vulnerability of people and their coping strategies -adaptation and mitigation efforts- are not the same throughout the country. Therefore, it is essential to show how environmental problems affect people's well-being and livelihoods at the individual and local levels to reveal the environment-conflict nexus comprehensively.

In this regard, some (e.g., Soysa and Gleditsch (1999), Ohlsson (2000a), Matthew et al. (2002)) particularly point out the significance of "livelihood" in the nexus

between environmental problems and armed conflicts. Agriculture, for instance, is the primary sector of the economy in many developing nations of the Third World. In such economies dependent on agricultural production, environmental problems can cause subsistence crises and unsustainable development, leading to the loss of livelihoods of vulnerable people and social groups. As expected, the loss of livelihood and poverty are most likely to impact society's most vulnerable groups, such as women, children, and the elderly. Particularly vulnerable people and social groups whose livelihoods depend on agriculture look for ways to cope with their new deprived situation. In order to make a living, they can create new livelihoods, fight for new resources, or migrate to new places. Such disruptions in agriculture also motivate the youth to participate in rebel groups for a living or migrate to prosperous countries in the Global North due to increasing poverty and rapid relative deprivation. In addition, conflicts legitimize illegal activities and thus provide an easier means of income for warring parties and would-be rebels. Therefore, the loss of livelihood of the vulnerable groups, the missing link in the environment-conflict nexus, should be integrated into our analysis (Matthew et al., 2002, pp. 14–17; Ohlsson, 2000a, pp. 5–9; Soysa & Gleditsch, 1999, 7-10, 32-38). As these studies emphasize, a loss of livelihood of vulnerable people and social groups due to environmental problems is the keystone of the causal mechanism between the environment-conflict nexus.

Particularly marginalized people and social groups become more susceptible to the adverse effects of environmental problems, with the impact of exclusionary and discriminatory state institutions and practices. In this regard, three interrelated concepts need to be emphasized: (i) vulnerability, (ii) resiliency, and (iii) adaptation (Adger, 2006; Deligiannis, 2012). According to the IPCC's Sixth Assessment Report (2022, p.

5), vulnerability is defined as “the propensity or predisposition to be adversely affected and encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.” In other words, the concept of vulnerability implies the lack of resiliency and adaptive capacity of people and social groups towards the adverse effects of climate change-induced environmental problems. While such a conceptualization of vulnerability mainly points out the resiliency and coping strategies of people and specific social groups, it misses the salience of “contextual and structural factors” in determining the vulnerability level (Deligiannis, 2012, p. 91). That is to say, the concept of vulnerability includes not only an internal dimension (the lack of adaptive capacity) but also an external dimension in which state institutions and practices play a role in different times and spaces (Liotta & Owen, 2006, pp. 44–48). Although there is no scholarly consensus on the meanings of these three interrelated concepts, each one of them is closely related to the availability of resources for coping strategies, the distribution of these resources across the country and social groups, and the utilization of these resources by social institutions (Adger, 2006, p. 277). As is evident, all these factors indicate the salience of the contextual and structural factors along with the resiliency and adaptive capacity of people and social groups against climate change-induced environmental problems.

It is important to note that this dissertation does not address environmental problems from the mutually exclusive perspectives described above, namely environmental conflict and environmental security. Instead, this dissertation considers such a distinction as a kind of reductionism to create analytical clarity and parsimony. Environmental problems can both undermine the well-being and welfare of people and threaten the security of states simultaneously. Rather than making a sharp distinction

between these two adverse effects of environmental problems and focusing on just one instead of the other, this dissertation proposes a more inclusive and holistic perspective, including human and state security. Accordingly, environmental problems undermine human security by reducing the quality and access to natural resources to meet basic human needs. Environmental problems can also undermine state stability by reducing the capacity of states to provide essential social services to people. Under such circumstances, a possible outcome could be an armed conflict between states and people (Barnett & Adger, 2007; Daoudy, 2021). In short, by proposing a more holistic model, this dissertation sheds light on how environmental problems disrupt social stability by simultaneously undermining human and, thus, state security.

1.4 Water Insecurity & Civil War Dynamics: A Theoretical Model

In order to answer the previously mentioned research questions, this dissertation focuses on the ramifications of climate change-induced environmental problems on civil war dynamics, particularly the relationship between water insecurity and civil war durations and outcomes, in the context of *North*, *Central* and *East Africa* regions. Although there is no consensus among scholars on what kind of effects environmental problems could have on civil war onsets (Buhaug, 2015; Salehyan, 2008, 2014), this dissertation argues that, through *indirect mechanisms* (Bazzi & Blattman, 2014; Bergholt & Lujala, 2012; Miguel et al., 2004; Theisen et al., 2011; Wischnath & Buhaug, 2014) and *conditional factors* (Barnett & Adger, 2007; Benjaminsen et al., 2012; Hauge & Ellingson, 1998; Nel & Righarts, 2008; Papaioannou, 2016), water insecurity proxied by droughts could be one of the factors explaining why countries in the developing world have experienced varying civil war durations and outcomes, such as *Chad*, *Sudan*, and *Ethiopia*. Additionally, although the environmental security

literature mainly focuses on the cases of Sahel countries in Africa, this project also deals with East African countries, the Horn of Africa in particular. Hence, it could be claimed that this dissertation project offers unique insights into the causal mechanisms between persistent droughts and civil war persistence beyond Sahel countries.

This dissertation argues that water insecurity could have *indirect* and *conditional* effects on civil war dynamics, consisting of durations and outcomes. Put differently, while environmental problems are generally considered a 'threat multiplier' for *civil war onsets* in the environmental security literature (CNA Military Advisory Board, 2007; US Department of Defense, 2014), this dissertation considers persistent droughts one of the climate change-induced environmental problems for the existence of *prolonged civil wars* and their varying *outcomes*. It is important to highlight that this dissertation does not argue that the connection is direct; instead, it claims that the causal mechanism between persistent droughts and prolonged civil wars is *indirect* and *contingent* on several political, economic, and social factors, namely (i) *agriculture-based economic structure*, (ii) *the number of warring parties*, and the existence of (iii) *discriminatory/exclusionary state policies* against particular social groups.

Obviously, in countries experiencing civil wars, when droughts hit a country, whose economy is dependent on agricultural production, it is expected that warring parties are affected differently and thus impact their strategic calculation about whether to continue or exit the war. Moreover, if state policies are discriminatory against particular social groups, droughts are more likely to exacerbate the already poor conditions of such social groups since state policies are expected to be specifically designed to protect state-supported social groups against droughts' negative impacts. A possible outcome in such a situation could be the mass participation of discriminated

social groups in rebel groups and, thus, prolonged civil wars. Last, if many competing actors struggle for dominance in the war processes, it is expected that reaching a negotiated settlement is a difficult goal as actors are likely to undermine ongoing peace processes to get a more advantageous position for themselves, thus extending the duration of civil wars.

In those countries experiencing civil wars, persistent droughts are likely to induce (i) *low state capacity* to deal with the insurgency and provide basic social services to people in need and (ii) *low opportunity cost* for and *heightened grievances* of would-be rebels to participate in rebel groups. Thus, they impact the protagonists' warfighting efforts and expectations of victory. In other words, drought-induced *weak state capacity* and *loss of livelihoods* impact the decisions of government and rebel leaders about their warfighting efforts. Based on their expectation and utility of victory, their resolve to absorb the costs of continuing fighting, and the required time to achieve their goals, the warring parties decide whether to continue fighting or exit the ongoing war. Consequently, such decisions would determine the outcome of civil wars and thus their respective durations (Brandt et al., 2008; DeRouen & Sobek, 2004; Mason et al., 1999; Mason & Fett, 1996; Wittman, 1979). For instance, if the cost of fighting increases and thus the utility of victory diminishes during a conflict, then the expectation of victory decreases incrementally as the war continues. Under such conditions, the warring parties decide whether to continue fighting or exit the war based in part on their cost-benefit calculations, thus shaping both the duration and outcome of the existing war. In brief, this dissertation argues that these indirect mechanisms and conditional factors related to water insecurity could yield protracted civil wars and, thus, varying

war outcomes by changing protagonists' strategic calculations about their warfighting efforts and expectations of victory.[23]

1.5 Methodology & Design

Even though there is a degree of consensus in the environmental security literature that environmental problems could have adverse effects on *social stability*, some problems must be solved to reach solid conclusions regarding the climate-conflict nexus. In this regard, two major problems of the environmental security literature deserve attention: (i) theoretical and conceptual issues and (ii) empirical and evidence-based problems. According to Salehyan (2008, pp. 321322, 2014, pp. 1–3), for instance, the climate-conflict nexus is far from reaching a set of agreed conclusions due to poor conceptualization and problematic empirical measurement. It is evident that scholars highlight the importance of both large-N analyses and case studies to get more refined measurements and nuanced causal processes for the climate-conflict nexus.

As is known, variable-oriented research (large-N analysis) provides generalizable relationships between concomitant variables in many cases, and thus it performs better in providing external validity. Nevertheless, it is weak in providing causal mechanisms between variables within cases. Case-oriented research (small-N analysis), on the other hand, provides a detailed description of a few cases, and thus it is better at providing internal validity. Focusing on a few cases makes comparative case studies more advantageous for getting detailed knowledge for concept formation and

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[23] Since the details of the theoretical model I proposed are examined in *Chapter 3*, I briefly touched on it here to outline my model. For detailed information about the proposed theoretical model, please see "A Theoretical Model on Water Insecurity & Civil War Dynamics" in *Chapter 3* in which I elaborate on my theoretical model before conducting a statistical analysis.

theory-building with limited resources (Lijphart, 1971, pp. 682–692; Ragin, 2014). That is to say, while the advantage of large-N analyzes is to provide relative magnitudes of independent variables' effects, small-n comparative case analyzes are much more advantageous in providing detailed causal processes between dependent and independent variables within cases. Concerning case selection, variable-oriented research looks for random sampling and variation in independent and control variables, whereas case-oriented research relies on dependent variables and relevant cases by employing J. S. Mill's method of difference and agreement. Moreover, case-oriented studies employ historical approaches for internal validation and deterministic knowledge, but variable-oriented studies do not need to have such historical knowledge as their ultimate aim is to create generalizable probabilistic knowledge (Della Porta, 2008, pp. 198–219; Ragin, 2014).

Given the pros and cons of each method mentioned briefly above, I employ a *mixed-method strategy* in this dissertation, combining a *large-N analysis* and a *comparative case study*. The primary purpose here is to take advantage of each method in order to eliminate each other's shortcomings (Lieberman, 2005). Considering that the dissertation aims to understand the impact of water insecurity on civil war dynamics and the causal mechanisms between them, it can be claimed that the most appropriate method for this dissertation is the use of a mixed-method strategy. Since I will explain in detail how to use both methods in the relevant chapters, I will only mention the general methodology and plan of the dissertation in this subsection.

This dissertation consists of two general parts. In **Part I**, consisting of *Chapter 2* and *Chapter 3*, I will review the relevant literature and examine whether water insecurity has any effect on civil war dynamics. More pertinently, after thoroughly

reviewing the civil war dynamics and environmental security literature in **Chapter 2**, I will construct my theoretical model on the nexus between water insecurity and civil war dynamics and examine the extent to which water insecurity proxied by drought can impact civil war duration and outcomes in **Chapter 3**. The primary purpose of *Chapter 2* is to reveal the factors affecting civil war dynamics and clarify how scholars associate environmental problems with civil wars. On the basis of this theoretical motivation, I will evaluate my proposed model of how water insecurity as a climate change-induced environmental problem can affect the dynamics of civil war in *Chapter 3*.

By using a global sample of civil wars for a *competing risks survival model* in *Chapter 3*, I will focus on the duration and outcomes of civil wars from a dyadic relationship between governments and rebel groups in order to understand how water insecurity impacts the duration of civil wars for each civil war outcome. Put differently, for each civil war outcome, *Chapter 3* examines how water insecurity proxied by droughts impacts the duration of civil wars. By employing such a survival model, I aim to examine both the impact of water insecurity on different civil war outcomes and their respective durations up to these outcomes. Although they are separate variables, civil war duration and outcomes are inextricably linked variables since the duration of civil wars, to some extent, is interconnected with civil war outcomes. Therefore, in *Chapter 3*, I aim to examine the impact of water insecurity on both the duration and outcomes of civil wars. In brief, Part I reveals the impacts of water insecurity on civil war dynamics by focusing on conditional factors of my theoretical model mentioned above in order to get externally validated evidence.

After examining the impact of water insecurity on civil war dynamics by employing a large-N analysis for the external validity of my model, I will conduct a

comparative case study of three countries to understand the causal mechanisms between droughts and civil war dynamics. In **Part II**, consisting of *Chapter 4*, *Chapter 5*, and *Chapter 6*, I will examine three cases from Africa, namely *Chad*, *Sudan*, and *Ethiopia*, in order to provide internally validated evidence for my theoretical model. In this part, by employing a *most similar systems research design*, my primary purpose is to examine whether and to what extent the causal mechanisms I propose in my model are observed in these four cases. In **Chapter 4**, Chad will be examined as the dissertation's primary case since it simultaneously experienced a prolonged civil war hit by a persistent drought. In **Chapter 5**, Sudan will be examined as the dissertation's control case since it simultaneously experienced a long-lived civil war hit by three short drought periods. Last, in **Chapter 6**, Ethiopia will be examined as the dissertation's other control case since it simultaneously experienced a persistent drought that did not prolong the ongoing civil war. By examining these three different cases from Africa, I aim to overcome the case selection bias caused by selecting cases based on dependent or independent variables. With variations in both dependent and independent variables, such a comparative case study can provide unbiased and robust findings regarding the relationship between water insecurity and civil war dynamics. The case selection process and rationales will be explained in detail in Part II.

As explained in the previous sub-section, my theoretical model mainly depends on the strategic calculations of warring parties about whether to continue or exit the war. Therefore, in *Chapter 4*, *Chapter 5*, and *Chapter 6*, I will employ a *process-tracing method* in order to investigate whether the two mediator variables, namely drought-induced loss of livelihoods and low state capacity, push the warring parties to make certain decisions. By *searching archives/historical records*, I will look at the documents

and correspondences as well as public pronouncements of political and rebel leaders/groups, including newspapers, interviews with the press, memoirs, and detailed case studies in other disciplines, in order to understand how the warring parties' strategic calculations change during civil wars hit by droughts. To that end, I will mainly investigate the daily reports of the *Foreign Broadcast Information Service* (FBIS).

Last, in **Chapter 7**, I will conclude the study by summarizing the Large-N analysis and the comparative case study of Chad, Sudan, and Ethiopia by pointing out whether water insecurity is a *sufficient and/or necessary condition* for varying civil war durations and outcomes. The same chapter will also touch on the dissertation's contributions to the environmental security literature, limitations, and future research topics on the climate-conflict nexus.

PART I

The first part of the dissertation aims to achieve two objectives. First, it aims to comprehensively demonstrate how civil war scholars study civil war dynamics and environmental security. Second, based on these literature reviews, it aims to construct a theoretical model explaining how water insecurity can cause varying durations and outcomes of civil wars. In this regard, *Chapter 2* reviews the previous research on civil war dynamics and environmental security. *Chapter 3* constructs a theoretical model and conducts a competing risks survival analysis in order to examine whether the proposed theoretical model has external validity across civil war cases.

Chapter 2

LITERATURE REVIEW

Based on the macro trends of conflicts mentioned in *Chapter 1* -the increased number of prolonged civil wars and their varying outcomes since 1945, particularly in the developing world- this chapter examines the civil war literature to find answers to the following two questions: (i) what factors affect the dynamics of civil wars, namely their durations and outcomes, and (ii) what kind of roles do climate change-induced environmental problems play in such civil wars? Therefore, this chapter includes two sections to demonstrate and evaluate scholarly works on civil war dynamics and environmental security. In this regard, the first section revisits the civil war literature in research on factors affecting civil war dynamics, consisting of durations and outcomes. Major perspectives of the environmental security literature, namely direct, indirect, and structural arguments, are covered in the second section.

2.1 Previous Research on Civil War Dynamics

What makes civil wars protracted, and what causes their varying outcomes? Scholars have provided several answers to this question in the related literature. This section investigates these answers under four main categories: (i) rational *versus* psychological perspectives, (ii) rebel motivation and financing, (iii) opportunity structure, feasibility, and organizational dimensions, and (iv) local, regional and systemic factors. Instead of focusing on the impact of each independent variable on civil war dynamics, the review below mainly sheds light on the underlying causal

mechanisms of civil war dynamics. Nevertheless, significant studies on the theme are also mentioned after elaborating on each perspective. It is important to note that the four categories below are not mutually exclusive; instead, they are constructed as analytical categories of civil war dynamics to make the review much more manageable. Thus, the specific variables mentioned under each category could be interrelated and cross-cutting.

2.1.1 Rational *versus* Psychological Perspectives

Civil war onset has always been one of the central themes of civil war literature. In the last few decades, however, civil war duration and outcomes have also become a significant theme in the related literature due to their connected nature (Brandt et al., 2008; DeRouen & Sobek, 2004; Mason et al., 1999; Mason & Fett, 1996). It is important to note that the answers to civil war dynamics are mainly constructed upon civil war initiation arguments. Regarding this theme, scholars have provided several answers to what can explain civil wars' varying durations and outcomes. The best-known scholarly debate is between rational and psychological perspectives. Before reviewing factors impacting civil war dynamics, I will elaborate on and assess each perspective in this sub-section.

The rational perspective is mainly based on bargaining failure arguments. Although the bargaining model was initially developed to explain wars among states (Fearon, 1995; Filson & Werner, 2007; Powell, 2004, 2006; Reiter, 2003; Slantchev, 2003; Smith & Stam, 2004; Wagner, 2000), scholars apply the same model to explaining civil war onset, duration, and termination processes (Brandt et al., 2008; Collier et al., 2004; DeRouen & Sobek, 2004; Fearon, 2004; Hartzell, 2016; Mason et al., 1999; Mason & Fett, 1996; Walter, 1997, 2009). According to the bargaining model of war,

unless rational actors can overcome their problems through non-violent means due to information, commitment, and indivisibility problems embedded in bargaining processes, they are inclined to resort to violence to solve their issues under dispute. As is evident, actors avoid waging wars due to their costs -the loss of blood and treasure- on warring parties and thus are more inclined to solve their issues through a bargaining process. Nevertheless, information, commitment, and indivisibility problems make bargaining processes less successful in overcoming actors' problems (Fearon, 1995, 2004b; Powell, 2004, 2006; Reiter, 2003; Walter, 1997, 2009).

Information problems underscore that warring parties can either have insufficient private information regarding their true intentions and/or relative capabilities and/or misrepresent them to other parties. Commitment problems, on the other hand, point out that negotiated settlements are hard to reach since one of the warring parties can have an intention of reneging on the terms of the settlement when feeling more potent in the future. Foreseeing such a possibility, actors become more prone to wage preventive attacks against each other. In addition to these two major arguments of the bargaining model, Fearon (1995, pp. 380–382) points out another problematic dimension in bargaining processes: issue indivisibility. Indivisibility problems shed light on how the content of issues under dispute undermines the bargaining process between actors. According to this, if the issue under dispute is indivisible, such as ethnic, religious, and territorial issues, actors are more likely to wage war against each other since such problems create a zero-sum situation in which actors are less likely to find a *Pareto-superior* through bargaining.[24]

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[24] Although Fearon (1995, p. 381) considers the issue indivisibility "less compelling" compared to the other two rational explanations, namely information and commitment problems, Powell (2006, pp. 176–

As mentioned above, the bargaining model is mainly developed to explain war initiation among states. However, the same model has also been applied to explaining different phases of war -duration and termination. Such increased use of the model can be explained by the scholarly interest in formal models and game theory in the post-1995 conflict studies period (Reiter, 2003, p. 29). According to this expanding use, the bargaining model of war does not only explain why war occurs when the bargaining process collapses among actors but also explains how the war is prosecuted, in which actors update their strategic calculations about whether to continue or exit the conflict as new information about their warfighting capabilities is revealed (Filson & Werner, 2007; Powell, 2004; Slantchev, 2003; Smith & Stam, 2004; Wagner, 2000).

Based on the information problems argument, such a theoretical perspective underscores that wars do not necessarily have two mutually exclusive outcomes: victory or defeat. Instead of this perspective that war is seen as a "costly lottery," the "costly process" perspective asserts that actors can reach a settlement while fighting by "screening" their costs and benefits as war reveals new information about their capabilities, expectations, and resolve. That is to say, while the costly lottery perspective sees wars as an "outside option" of the bargaining model since, once war begins, the bargaining process collapses, the costly process perspective considers wars an "inside option" in which warring parties continue bargaining to achieve an optimal outcome by

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180) does not consider the issue indivisibility as a separate argument of the bargaining model. Instead, he argues that even in indivisible issues, there is a bargaining range in which actors can come to a peaceful resolution mechanism instead of costly fighting –a Pareto superior equilibrium. According to this, the reason why actors opt to fight to solve indivisible issues is not about the nature of issues but the existence of commitment problems in which actors cannot trust each other due to possible future exploitation of agreements. For more information, please see: Powell (2006). War as a Commitment Problem. *International Organization, 60*(1), 169–203.

"learning" new information that war ensures (Filson & Werner, 2007; Powell, 2004; Slantchev, 2003; Smith & Stam, 2004; Wagner, 2000).[25]

Regarding when warring parties are more likely to start a negotiation process for a settlement while fighting, Zartman (2000, pp. 228–230, 2001, pp. 8–9) particularly points out that settlements can be a viable option at a "ripe moment" when actors reach a *perceived* "mutually hurting stalemate" in which they are not able to proceed to military victory anymore due to diminishing returns and/or increased pain of continuing war. In other words, based on their cost-benefit calculations, when actors realize that the expected utility of victory has become too low compared to the cost of continuing war, they are more likely to search for non-zero-sum outcomes, such as settlements. Moreover, if actors miss seizing the ripe moment to reach a settlement in the early stages of the war, then actors need to fight longer durations to reach another hurting stalemate for a possible settlement (Zartman, 2000, p. 231, 2001, p. 13).[26] It is important to note

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[25] Despite their consensus on the idea that war is a costly process in which actors learn new information about each other while fighting and thus accordingly change their strategic calculations about whether to continue or exit the war, they still disagree on multiple fronts: (i) whether the war should have limited or absolute ends (Clausewitzian limited and absolute war concepts), (ii) what warring parties should focus on (the general balance of power, the number of resources, or the territorial capture after each battle), (iii) whether actors can change their beliefs as negotiations reveal new information (signals along with the screening process), and (iv) whether only the uninformed actor can make offers (the nature of the bargaining protocol). For a review with regard to the similarities and differences of each formal model used in the bargaining model and its major contenders, please see: Reiter (2003). Exploring the Bargaining Model of War. *Perspective on Politics, 1*(1), 27–43.

[26] According to Sisk (2022), the ripeness theory of Zartman is problematic in understanding prolonged civil wars, such as the Syrian case, since the theory solely focuses on the balance of power between warring parties and the interactions between dyadic actors without considering the international and regional factors. According to this, the current Syrian civil war cannot be understood without taking regional (Turkey, Iran, Saudi Arabia, Israel, and Iraq) and extra-regional (Russia, China, the European Union, and the United States) actors into account along with the arguments of the ripeness theory. For more information regarding the limits of Zartman's ripeness theory in understanding particularly the Syrian civil war, please see: Sisk (2022). Elusive Settlements in Regional Conflict Complexes: Syria, Zartman, and the Limits of Ripeness Theory. *Ethnopolitics, 21*(2), 138-148.

that Zartman's ripeness theory underscores not only the role of fighting as an information-generating mechanism but also emphasizes the significance of diplomatic exchanges between warring parties and diplomatic manipulation by external actors in setting up a bargaining table for a settlement. Similar to Zartman's argument, Slantchev (2003, p. 627) claims that "although the eventual bargain does depend quite significantly on the current military position, the important information transmission happens through the strategic behavior of opponents which provides more precision than the crude fighting mechanism." Both the ripeness theory of Zartman (2000, 2001) and the convergence theory of Slantchev (2003) call attention to the significance of "signals" derived from "manipulative" diplomatic behaviors and negotiations in ripe moments when the "screening" of the "non-manipulative" military positions is not sufficient to understand the whole bargaining process.

As is seen, compared to commitment and indivisibility problems, information problems are considered much better in explaining how wars start, endure and end in the bargaining model literature (Filson & Werner, 2007, p. 32; Powell, 2006, p. 170). According to this, private information impacts actors' strategic calculations about whether to continue fighting or exit the war and, thus, war duration and outcomes. Put differently, war-induced information makes actors renew their expectations with regard to war outcomes: if the expectation and utility of military victory decrease due to increasing costs of fighting as the war continues, actors become more inclined to reach a settlement. Based on such cost-benefit calculations, actors decide whether to continue fighting or reach a settlement, and such decisions decide the duration as well as the outcome of wars (Brandt et al., 2008; DeRouen & Sobek, 2004; Mason et al., 1999; Mason & Fett, 1996; Wittman, 1979). In brief, the longer a war continues, the more

likely actors are to reach a settlement due to revealed information regarding their decreased expectation and utility of victory and the increased costs of fighting.

Despite the significance of the information problems in explaining both interstate and intrastate wars in the bargaining model literature, scholars also point out how commitment problems are as significant as information problems in explaining wars (Keels & Wiegand, 2020; Powell, 2006; Reed et al., 2016; Walter, 1997, 2009). According to Powell (2006, pp. 172176), for instance, the assumption of information problems that wars are likely to happen when actors do not have private information about each other does not apply to understanding each case. Even in a complete information environment, different risk-taking types of actors can follow different courses of action. That is to say, in situations where fighting reveals actors' capabilities, intentions, resolve, and risk-taking types and thus creates a complete information environment, the perspective of commitment problems is much more likely to explain "the inefficiency puzzle of war" -why actors fight and/or continue fighting instead of resolving their issues under dispute in a peaceful way. For Powell (2006) and Reed et al. (2016), rather than the existence of information asymmetries, commitment problems based on rapid changes in the balance of power among groups are much more likely to explain why actors choose to fight instead of reaching a settlement through a peaceful mechanism.

Similarly, Walter (1997, 2009) demonstrates that commitment and indivisibility problems can cause the initiation as well as the continuation of war until one party is militarily defeated unless there is an external intervention either through third-party enforcement or issue linkages. According to this, the continuation of war until one side is defeated is much preferable for warring parties since signing a treaty can make

signatory parties more vulnerable to future attacks due to the lack of respect for the terms of agreements by their adversaries. In this regard, Keels and Wiegand (2020) demonstrate that specific issues, such as ideologies and religion, are much more likely to make actors less trustworthy towards each other in terms of committing to the terms of agreements and thus prolong wars.

Although Powell (2006) does not consider the issue indivisibility a significant component of the bargaining model, Keels and Wiegand (2020) point out the salience of specific issues in explaining actors' beliefs about future behaviors of other signatory parties towards the terms of agreements. According to them (2020, p. 2027), "the relative salience of the issues under dispute may play a key role in whether combatants believe that their opponents will abide by any terms offered in a settlement." As is evident, specific indivisible issues, such as ideologies and religion, are much more likely to make commitment problems less resolvable since any concession from the core tenets of ideologies and religion can be seen as a betrayal by supporters. Given that warring parties, particularly rebel groups, rely on public support and recruitment to sustain their fighting, such a possibility enhances commitment problems so that neither side trusts the other party about credibly committing to the terms of agreements. As a result, parties continue fighting until one side is militarily defeated.[27]

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[27] Although many consider information and commitment problems to occur independently, they are nonetheless interconnected and can be used simultaneously to explain the same cases (e.g., Kirschner (2010); Wolford et al. (2011)). In this regard, Kirschner (2010) sheds light on the salience of information about group interactions in renewing actors' strategic calculations regarding possible future exploitation of agreements by adversaries. Such information, namely past conflicts, atrocities during the existing war, multiple forms of discrimination, and the identifiability of individuals, such as ethnicity, religion, language, et cetera, forces warring parties to renew their strategic calculations about whether to continue or exit the war by signing a treaty. However, the exacerbated commitment problems due to the lack of trust make actors choose the continuation of fighting to secure themselves in the future. Similarly, Wolford et al. (2011) show that when both information and commitment problems are combined into the

Although the rational perspective occupies much space in the civil war literature, that does not mean it is a hegemonic perspective. Instead, the rational perspective is criticized for its flawed assumptions about human rationality, limited explanatory power, and measurement problems (Kaufman, 2001, 2006, 2015). Despite increased attention to the bargaining failure arguments in the related literature, I will try to avoid following the same arguments to clarify my theoretical model in the next chapter, connecting climate change-induced environmental problems to civil war duration and outcomes. The reason is that bargaining failure arguments have many flaws and are insufficient to explain complex civil war dynamics in different contexts. Therefore, I will first explain the flaws of the rational perspective and why it is insufficient to understand the complex nature of civil war dynamics. Then, I will elaborate on the psychological perspective, particularly Kaufman's (2001, 2015) theory of "symbolic politics" as the leading contender for the rational perspective.

First, as mentioned above, the bargaining failure arguments are mainly developed for understanding interstate wars from a "rationalist" perspective. According to this, interstate wars are mainly the result of three major problems, (i) information problems, (ii) commitment problems, and (iii) indivisibility issues. For Fearon (1995, p. 379), even rational leaders can prefer fighting over peaceful alternatives if "the expected benefits of war […] outweigh the expected costs […]." In other words, under certain circumstances, war can be a rational alternative for decision-makers in

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same formal model, the predictions of the information problems with regard to war duration and outcomes become reversed since uncertainty over possible future exploitation of agreements due to shifts in the balance of power makes actors more rely on the continuation of the war in order to secure themselves. For more information, please see: Kirschner (2010). Knowing Your Enemy: Information and Commitment Problems in Civil Wars. *Journal or Conflict Resolution, 54*(5), 745-770; Wolford & Carrubba (2011). Information, Commitment, and War. *Journal of Conflict Resolution, 55*(4), 556-579.

comparison to peaceful resolutions. The main problem here is to explain why rational leaders prefer to fight despite the apparent risks and high costs of fighting. According to this perspective, the three problems are likely to provide an answer to why even rational leaders choose to fight instead of reaching a negotiated settlement with each other. As Kaufman (2006) demonstrates in his piece, however, bargaining failure arguments cannot explain civil wars in different contexts, such as Nimeiri's Sudan or the genocide in Rwanda. In these two cases, the conflict-generating problem is neither about information, commitment, and indivisibility issues nor economic motivations. Instead, the problem is mainly based on "symbolic predispositions" of social groups against each other and the manipulation of prejudices and security fears emanating from the security dilemma by elites in order to gain political power.

Second, although they may seem like plausible arguments at first, both information and commitment problems, along with the security dilemma among social groups, have substantial flaws in explaining civil war dynamics since each explanation is designed to explain the initiation of civil wars rather than their duration and outcomes (e.g., Posen (1993), Lake and Rothchild (1996)). Despite their goal of explaining the initiation of civil wars, information problems' concerns with preferences/intentions and capabilities can only be understood during the conflict, not beforehand. Similarly, commitment problems are originally designed to explain the initiation of civil wars rather than their varying duration and outcomes. Furthermore, they increase during a conflict since each warring party aims to destroy rivals to achieve its political goal. Therefore, there is no way to overcome such a problem during a civil war. Last, commitment problems are more likely to explain one civil war outcome: negotiated settlements. Civil wars, however, can be resolved with three specific outcomes: a

decisive military victory of one of the parties (rebel victory or government victory) or a negotiated settlement. In brief, applying such arguments to explain civil war dynamics creates many problems that scholars must overcome for their theories' explanatory power.

Last but not least, bargaining failure arguments are hard to measure their impacts on civil war processes since each variable is constructed upon perceptions. Information problems, for instance, refer to the preferences, intentions, and capabilities of warring parties. As is evident, the knowledge about preferences and intentions is based on the actors' perceptions. Even capabilities are perceptual since actors' offensive and defensive military forces and strategies, to some extent, depend on how rival actors evaluate them for the balance of power (Posen, 1993, pp. 28–29). Commitment problems, too, are perceptual since their existence relies on the lack of trust between social groups. Therefore, overcoming commitment problems requires the supervision of external actors to alleviate such trust issues for the implementation of peace agreements (Walter, 1997, 2009). Even indivisibility issues are perceptual since such issues, such as ethnic and/or religious identities and territorial disputes, are not inherently indivisible; instead, they are indivisible since actors consider their solutions unacceptable. As is seen, bargaining failure arguments are based on how actors understand and evaluate information, commitment, and indivisible issues from their own perspectives. As a solution to overcome such perceptual problems and measure their impacts, proxy variables can be employed. However, we need to clearly explain which proxy variables are appropriate to be used. Likewise, we must be sure to understand what we are *really* measuring with such proxy variables.

Besides these limitations and flaws of the bargaining failure arguments above, the psychological perspective criticizes the rational perspective due to its over-emphasis on human rationality in people's behaviors, from economic activities to voting preferences to complex civil war processes. According to the psychological perspective, people do not merely follow the dictum of cost-benefit calculations or aim to maximize their economic benefits when taking action. Instead, people are disposed and sensitive to their instincts, feelings, symbols, and manipulations by others, and in many cases, such emotional motivations are more compelling for them to take specific actions than rational/economic motivations (Kaufman, 2001, pp. 27–29, 2006, pp. 49–55). Even random categorization of people, for instance, creates "in-group favoritism" and out-group discrimination in situations requiring comparisons (Tajfel, 1970; Tajfel & Turner, 2004). Particularly in ethnic tensions, people are likely disposed to take violent actions in order to preserve "group worth" and status compared to other groups. Psychological and related political factors, such as inequality, relative deprivation, preserving group worth, status-seeking, and political representation, are much more likely to generate collective violent actions where social identities are the locus of social issues (Gurr, 2010; Horowitz, 1985; Sambanis, 2001). In addition to these group-level psychological dimensions, even personal feelings, such as "revenge," explain why civil wars cause more atrocities than interstate wars (Kalyvas, 2001).[28] Thus, as Horowitz (1985, p. 140)

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[28] By investigating the civil war in Greece, Kalyvas (2006, p. 5) puts forth that even in an ethnically homogenous place, Argolid, people experienced "a savage civil war that caused the death of close 2 percent of the rural population." Despite his theory constructing a joint process of the macro level ("the level of control over territory") and micro level ("denunciations") factors in order to explain civil war dynamics, he underlines how personal feelings, such as "revenge," are a driving factor in rational calculations of participants. According to this, the structure of equilibrium between the level of control over territory and denunciations is to decide whether actors conduct indiscriminate or selective violence. For more information, please see: Kalyvas (2006). *The Logic of Violence in Civil War*. Cambridge University Press. (Introduction).

emphasizes, "[t]he sheer passion expended in pursuing […] conflict calls out for an explanation that does justice to the realm of the feelings."[29]

When specifically looking at the psychological perspective in order to understand civil wars, Kaufman's theory of "symbolic politics" (2015) comes to the fore as a leading contender for the rational perspective. According to the symbolic politics theory, mass mobilization in civil wars cannot be explained only by rational calculations of individuals. Even though economic motivations are salient in many civil war cases, particularly in Africa, people and social groups are much more disposed to emotionally laden symbols, such as myths, prejudices, and stereotypes. Such emotional appeals make people more inclined to take risky behaviors even when the opportunity cost of participation is high. Here two factors are critical: (i) "myth-symbol complex" and "symbolic predispositions," including myths, national narratives, emotionally laden symbols, prejudices, stereotypes, *et cetera*. Such ethnic hostilities emanating from myths, symbols, and predispositions form the basis of (ii) "ethnic fears" or "threat perceptions." These emotional narratives and predispositions make ethnic groups much more sensitive to other groups' words and actions, ultimately fueling their security dilemma (Kaufman, 2001, pp. 29–32, 2015, Chapter 1).

Nevertheless, these ethnic hostilities and fears are insufficient to generate a war between social groups. Here another three factors come to the fore during the

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[29] In his opus magnum, Ethnic Groups in Conflict, Horowitz (1985) sheds light on how modernization theory, economic motivations, and cultural divergence theory are insufficient to understand conflicts among ethnic groups. For Horowitz, ethnic conflicts are essentially based on comparisons among status-seeking groups in which colonial legacy and elites play a decisive role in generating ethnic cleaveges, steoretypes, and fears. Such psychological factors can be clearly seen in secessionist ethnic movements in where "advanced" and "backward" groups struggle for status, be it "domination" or "equality." For more information regarding to role of social identities in conflicts, please see: Horowitz (1985). *Ethnic Groups in Conflict*. University of California Press. (Part Two: The Theory of Ethnic Conflict.)

mobilization process. For a mass violent conflict to occur, social groups, to some extent, should be free to organize and use violence without facing intense state repression. In other words, the extent of state capacity and coercion decides whether mass mobilization for violence is a viable option for would-be rebels and rebel organizations. Thus, (iii) opportunity structure or feasibility of rebellion is another critical factor. When the conditions above are met, mass mobilization could be a result of bottom-up processes, but elite-led mass mobilization deserves special consideration. Elites can either hijack and lead an already-developed mass mobilization toward a specific direction or manipulate the existing myths and fears in order to gain support for their cause and organization.[30] In either case, elites are an indispensable part of mass mobilization because of their (iv) "framing" capacity and power. However, such a framing power should be supported by (v) an "organizational structure" in which elites control and direct mass violence beyond motivating people to participate in collective action. Therefore, "ground war" is as essential as "air war" in order to make people ready to participate in violent collective actions mentally and organizationally (Kaufman, 2001, pp. 32–37, 2015, Chapter 1).

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[30] Although Kaufman (2001, pp. 34–38) initially makes a clear distinction between "mass-led" violence (Georgian and Karabag conflicts) and "elite-led" violence (Serbian and Transnistria conflicts), he does not apply the same distinction to the cases of his second book, Nationalist Passions (2015, Introduction; Chapter 1). This, to some extent, can be explained by the increased impact of social mobilization theory, emphasizing leadership and organizations, on his theory. Furthermore, he expands the scope of what he thinks about elites. While only political elites are considered important framing actors in Modern Hatreds (2001), elites of any kind become major players of civil wars in Nationalist Passions (2015). In brief, the role of elites in framing narratives and organizing mass-movements has become a central pillar in his books. For more information, please see: Kaufman (2001). *Modern Hatreds: The Symbolic Politics of Ethnic War*. Cornell University Press.; Kaufman (2015). *Nationalist Passions* (Kindle Edition). Cornell University Press.

As is clear, the psychological perspective, particularly the theory of symbolic politics, provides a "synthesis" of civil war literature since neither "one-factor theories" (e.g., Collier et al. (2008), Collier and Hoeffler (2004), Fearon and Laitin (2003), Fearon (1995), Posen (1993), Lake and Rothchild (1996)) nor "single-discipline theories" (e.g., Tilly (1978), McAdam et al. (2004), McAdam et al. (2008), Tilly and Tarrow (2015)) are sufficient to explain the complex civil war processes (Kaufman, 2015, Introduction). By providing a more holistic perspective, the symbolic politics theory has more explanatory power than the bargaining failure arguments by combining social mobilization theory with emotional motivations and feasibility arguments. Similar to the bargaining failure arguments, symbolic politics theory is initially developed to understand civil war onsets. However, it can provide valuable information about how (i) discriminatory state policies against specific social groups, (ii) the strength of state capacity, and (iii) the role of leaders and organizations can explain civil war dynamics, namely duration and outcomes. Furthermore, given the importance of socio-political grievances in civil wars and the grievance-generating mechanisms of civil wars themselves, (iv) the level of atrocities is more likely to harden social identities or grievances and thus prolong civil wars by undermining the possibility of negotiated settlements between warring parties (Kaufmann, 1996, pp. 138–142; Sambanis, 2001).

Nevertheless, that does not mean that the rational perspective is irrelevant in understanding civil war dynamics.[31] Although the rational perspective has several flaws and limitations, it still has some merit by underlining critical factors regarding civil war

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[31] Even Kaufman (2001, p. 22), a leading contender of the rational perspective, accepts in Modern Hatreds that "[r]ationalist approaches do offer important insights […]," such as the role of elites in using ethnic fears instrumentally, mobilizing masses for economic motivations, and exacerbating the security dilemma among social groups.

duration and outcomes. For instance, commitment and information problems point out the salience of extradyadic actors in civil war dynamics, be they internal or external (Hegre, 2004). According to this, extra-dyadic actors, ranging from militias to international organizations intervening on the side of either governments or rebel groups or as neutral actors, emphasize the limitations of the dyadic perspective in civil war literature. The actual or expectation of external support (Akcinaroglu & Radziszewski, 2005; Elbadawi & Sambanis, 2000), the intention, strategy, and coordination of external actors in interventions (Aydin & Regan, 2012; Balch-Lindsay & Enterline, 2000; Cunningham, 2010; Regan, 2002), the type and content of external interventions (Escribà-Folch, 2010; Kathman & Benson, 2019), the regime type of intervening external actors (Norrevik & Sarwari, 2021), the number of domestic actors and their diverging aims (Cunningham, 2006), the stability of governments, the tenure time and responsibility of leaders in civil wars (Prorok, 2018; Thyne, 2012, 2015; Uzonyi & Wells, 2016) are the most important variables suggested by the rational perspective about civil war dynamics. From this comprehensive list, I argue that particularly three factors have important impacts on the durations and outcomes of civil wars: (i) external interventions, (ii) the number of warring parties, and (iii) the stability/strength of governments. The main problem of these studies, however, is that they do not provide a thick description of how these variables impact civil war dynamics. Therefore, in the following sub-sections, I will elaborate on which variables have more explanatory power and how they lead to varying civil war durations and outcomes by examining both quantitative and qualitative studies.

2.1.2 Rebel Motivation & Financing

The rational and psychological perspectives reviewed above provide general ideas about what motivates people to take specific actions, even in risky situations. According to this, people are more likely to participate in violent collective actions because of economic or emotional motivations. Based on the perspectives above, I will examine "greed" and "grievance" arguments in this sub-section in order to demonstrate why people act violently. I argue that neither motivations alone are sufficient to make people participate in violent mass movements. That is to say, there is a need for the co-existence of both motivations to make people believe that risking their lives is a viable option.

The questions of why people participate in rebel groups and how rebel groups sustain their warfighting efforts are important themes of war duration and outcomes in the relevant literature. Particularly for rebel groups, sustainable public support and recruitment activity is an indispensable component of prolonged wars against relatively mighty governments. If motivating people to take arms against governments is necessary for rebel groups to sustain their warfighting efforts, then what factors affect people's decision to participate? This sub-section reviews the civil war literature to answer this question around two frequently cited themes: "greed" versus "grievance" (Cederman et al., 2011; Collier, 2000a, 2000b; Collier & Hoeffler, 1998, 2004; Gurr, 2010; Keen, 2000; Reno, 2000; Shearer, 2000; Soysa, 2000; Stewart, 2008). Although these two themes are generally used for explaining civil war onsets, they also provide valuable information in order to understand why people are inclined to sustain their warfighting efforts instead of ending conflicts.

Basically, the recurrent debate in the civil war literature about what motivates people to take up arms against governments is directly related to Olson's well-known

argument concerning the "collective action problem" (Hoeffler, 2011, pp. 275–277). According to Olson (2002, pp. 116), if people, particularly in large organizations, are likely to benefit from public goods without any costs or risks, but others can take responsibility for the necessary action or cost on their behalf, they are inclined to be "free-riders." Such an approach that prioritizes maximizing individual benefits rather than joint action can be found in civil wars in which some people take the risk of dying for a common cause, but all, in the end, share the benefits of victory (if any). Given the benefits of being a free-rider in civil wars, why some people -but not others- take up arms against governments while at risk of death becomes a critical puzzle.

In this regard, there has been an ongoing scholarly debate since the 1990s about whether people are motivated to participate in rebel groups for their acute grievances (e.g., Stewart (2008), Østby (2008), Gurr (2010), Montalvo and Reynal-Querol (2010), Cederman et al. (2011), Wucherpfennig et al. (2012), Cederman et al. (2013), McLauchlin (2018)) such as economic inequality, political discrimination, ethnic and/or religious polarization, and cultural exclusion, or just for their private gains through the exploitation of natural resources, support by diasporas and external governments, and loot, pillage, and plunder during conflicts (e.g., Bagozzi et al. (2017), Collier (2000a), Collier (2000b), Collier and Hoeffler (1998), Collier and Hoeffler (2004), Keen (2000), Koren and Bagozzi (2017), Reno (2000), Shearer (2000), Soysa (2000)). One of the leading figures of the grievance school of thought, Stewart (2011, p. 3) claims that the reason "why ethnic or religious conflict breaks out in some circumstances and not others," particularly in the post-Cold War period, can be explained by "the existence of major horizontal inequalities" along economic, social, political, and cultural lines between various social groups, be it religious, ethnic, racial, *et cetera*. From this

grievance perspective, mass mobilization for violent acts, such as civil wars, is dependent on the existence of heightened grievances at both leadership and mass levels in which mainly relative deprivation and/or discrimination among social groups make masses take arms against governments and/or each other for a better position within society.

Given the development of data availability and quality in recent years, by employing a quantitative analysis with a global dataset, Cederman et al. (2011; 2013) show how Stewart's horizontal inequalities, particularly social and political ones, are much more likely to explain civil war outbreaks by generating heightened grievances for mass mobilization.[32] According to this, social and political inequalities among social groups rather than economic ones among individuals are more likely to explain the outbreaks of civil wars (Østby, 2008). The heightened grievances due to horizontal inequalities and the relatively few coordination problems among individuals within the same social groups, such as ethnicities, are more likely to result in more significant mass mobilization for violent conflicts. In this regard, the Nepalese civil war is a frequently cited example in which the outbreak and continuation of the Maoist insurgency (1996-2006) mainly resulted from horizontal inequalities based on discriminatory land

[32] It is important to note that even though Stewart (2008, p. 18) emphasizes relative deprivations along political, economic, social, and cultural lines, his emphasis relies on actual deprivations rather than the perceived ones on which Gurr (2010) constructs his theory. According to Gurr (2010, pp. 12–13), perceived "relative deprivations" or frustrated expectations among social groups are the primary driving mechanism for some social groups taking up arms against each other and/or governments. Compared to Stewart (2008), however, Cederman et al. (2011); (2013) do not exclude the cognitive aspect of relative deprivation among social groups and thus are much closer to Gurr 's position. Despite such nuances between their arguments, they agree on the idea that inequalities among social groups, be they actual or perceived, are considered the main factor in civil wars' beginning, continuation, and recurrence.

ownership policies among different ethnic groups (Macours, 2011; Murshed & Gates, 2005).

Particularly concerning the impact of horizontal inequalities on civil war duration and outcomes, ethnic polarization and exclusionary state policies against particular social groups are likely to result in prolonged civil wars (Montalvo & Reynal-Querol, 2010; Wucherpfennig et al., 2012). According to this, selective political and economic promotions toward specific social groups can exacerbate existing grievances and generate a backlash against governments. Such heightened grievances among rival social groups are likely to provide the necessary human resources for rebel groups to maintain their fighting efforts against governments, thus leading to prolonged civil wars. Furthermore, exclusionary state policies make supported social groups more regime loyalists, thus leading to less credible rebel assurance in peace processes. Therefore, even if rebel groups pursue non-ethnic agendas in their fight, such exclusionary state policies can lead to prolonged civil wars (McLauchlin, 2018).

Relying on the well-known "sons-of-the-soil" theory of Weiner (1978) on the Indian case, for instance, Fearon (2004) points out the impact of internal migration towards arable lands on ethnic polarization between ethnic minorities and government-supported ethnic majorities.[33] Internal migrations to arable lands can cause civil wars by exacerbating ethnic tensions between minority ethnic groups and government-

[33] Although Fearon (2004) is a well-known figure of the rational perspective, such as bargaining failures and opportunity structure in explaining (civil) wars, he implicitly points out the significance of discriminatory state policies and horizontal inequalities among social groups in causing prolonged civil wars. With the argument of a prominent figure of the psychological perspective, Kaufman (2001), Fearon's approach shows how a distinction between greed and grievance arguments is essentially an analytical typology in creating parsimonious theories rather than understanding the complex processes of civil wars.

supported ethnic majorities over limited resources, local jobs, and the "division of labors." That is to say, internal migrations to arable lands from non-arable areas can cause heightened ethnic tensions due to an incremental decrease in the status of government-supported ethnic majorities. When states begin to intervene in favor of a particular social group, such internal migrations are likely to cause prolonged violent conflicts between ethnic groups over controlling arable lands. Although the main problem seems to be about controlling arable lands, the underlying causal mechanism here is much more related to discriminatory state policies between social groups. According to this, horizontal inequalities or discriminatory state policies are likely to provide information on the durations and outcomes of civil wars. If previously-excluded social groups, for instance, begin to participate in decision-making processes, one can expect to see a settlement and, thus, shorter civil wars.

Another related argument is about how the public support of rebel groups/leaders is likely to impact the duration of civil wars under the expectation of externally enforced democratization. Some (e.g., Metternich (2011)) argue that leaders are more likely to continue fighting unless they have high public support and that limited public support makes rebel leaders more inclined to quit civil wars earlier due to the expectation of externally enforced democratic elections by international organizations in the post-conflict environment. However, I argue that public support is indispensable to prolonged civil wars since rebel groups are required to sustain public support and recruitment for their cause. Rather than considering a hypothetical situation in the post-conflict environment, rebel leaders are more likely to focus on increasing mass participation in their warfighting efforts during a war. With such broad public support, rebel leaders are inclined to prolong their fighting against governments for a decisive

victory or better terms of an agreement. In this regard, horizontal inequalities create necessary motivations for discriminated social groups to participate in violent mass movements for an extended period.

Given the prevalence of socio-political grievances in almost all societies and the negative ramifications of rebellion on societies, such as infrastructure damage and economic contraction, which exacerbate the already existing grievances, others argue that economic incentives and the viability of rebellion have more explanatory power than grievance-based explanations regarding civil wars dynamics, and how people are motivated to participate in rebel groups by overcoming the collective action problem (Bagozzi et al., 2017; Collier, 2000a, 2000b; Collier & Hoeffler, 1998, 2004; Keen, 2000; Koren & Bagozzi, 2017; Reno, 2000; Ross, 2004; Shearer, 2000; Soysa, 2000).[34] In this regard, Collier (2000a, 2000b) and Collier and Hoeffler (1998, 2004) demonstrate that people are more sensitive to economic incentives rather than socio-political motivations, in which rebellion is considered a viable option against relatively mighty governments when there is an opportunity for would-be rebels to accumulate private gains by fighting. That is to say, would-be rebels are much more likely to take up arms against governments and sustain their warfighting efforts when they see a high probability of victory and/or that they can accumulate personal wealth during or at the end of the conflict.

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[34] In addition to the collective action problem, Collier (2000a, pp. 98–100) points out how economic motivations are much more likely to reduce the coordination as well as time-consistency problems of rebel groups. According to this, given the possibility of accumulating personal wealth by would-be rebels, rebel leaders do not have to deal with motivating and coordinating social groups and keeping their promises, since each individual can choose whether to participate in rebel groups for personal wealth based on their own cost-benefit calculations.

As is evident, violence is not an irrational activity from the greed perspective; instead, it has a consistent logic in which both elites and ordinary people can utilize it for their economic agendas. In other words, elites can utilize violence to sustain their politically and economically privileged positions by mobilizing the masses to take arms against their rivals. At the same time, ordinary people can also participate in rebel groups to seek security, maintain their lives, and accumulate wealth by becoming a part of the rebel groups' criminal activities, such as pillaging, controlling trade routes, lands, and labor by force, and raiding on aid convoys and agricultural lands. Under such conditions, the ultimate goal of fighting is not winning the war as in conventional wars; instead, the aim becomes to sustain fighting as much as possible to accumulate wealth and sustain privileged positions (Keen, 2000). Militias, for instance, are inclined to prolong civil wars by preventing necessary negotiations for a peaceful settlement due to their vested interests in civil wars. Although the underlying problem here is about the existence of "spoilers" (Stedman, 1997, 2003) or "veto players" (Cunningham, 2006) aiming to undermine peace talks, it is not surprising from the greed perspective that militias are inclined to prolong the war by undermining peace negotiations since the continuation of their lives depends on the income or resources they get during the war (Aliyev, 2020).

Despite the assumption that the continuation of wars is only in favor of rebel groups, ruling elites can also be inclined to ignite and continue conflicts to sustain their power against their rivals in "shadow states" where "personal security, protection of property, and economic opportunity (in lieu of public services or security) are subject to the personal discretion of a superior, rather than as a consequence of impersonal institutions" (Reno, 2000, p. 47). Given that rival parties can oust the ruler under such

conditions, patronage recipients are also willing to accumulate wealth by exploiting resources, including humans, during conflicts. Rather than seeing them as dedicated actors to overcome their grievances by waging war, such a perspective considers warring parties as bandits or pirates, in which their activities are oriented towards loot-seeking, particularly the exploitation of "subsoil assets" or "mineral wealth," such as oil, for the accumulation of personal wealth (Soysa, 2000).[35]

It is important to note that the income resources of rebel groups are not limited to the exploitation of natural resources. Instead, rebel groups (and sometimes ruling elites) have myriad ways of generating wealth, such as raiding aid convoys sent by the international community to conflict zones or taking part in international drug trafficking or illegal arms trade (Shearer, 2000).[36] What is more, rebel groups can raid agricultural lands in order to have enough food crops to make a living and maintain their warfighting efforts by selling or exchanging them (Bagozzi et al., 2017; Koren & Bagozzi, 2017). Furthermore, the eroding territorial sovereignty of states since the 1970s due to globalization and neo-liberalization processes has created a conducive environment for

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[35] By making a distinction between renewable and non-renewable natural resources, Soysa (2000) supports the "honey pot hypothesis" that the outbreak of civil wars is much more likely to erupt in countries having "mineral wealth" for loot-seeking actors in which the mechanisms of "Dutch disease" or "rentier state" play a role in generating violence among actors for personal wealth. For more information about whether the abundance or scarcity of natural resources lead to conflicts, please see: Soysa (2000). The Resource Curse: Are Civil Wars Driven by Rapacity or Paucity?. In M. R. Berdal & D. Malone (Eds.), *Greed and Grievance: Economic Agendas in Civil Wars* (pp. 113–136). Lynne Rienner Publishers.

[36] Although Shearer (2000, pp. 190–197) acknowledges the impact of aid on civil war situations by generating war economies and forcing the population to move into specific areas, he nevertheless argues that the evidence supporting the war economy hypothesis is based on a limited amount of anecdotal evidence and that such adverse effects are minimal compared to other revenue-generating mechanisms of rebel groups, namely the exploitation of natural resources and drug trafficking. For more information regarding the negative as well as positive impacts of aid on civil wars, please see: Shearer (2000). Aiding or Abetting? Humanitarian Aid and Its Economic Role in Civil War. In M. R. Berdal & D. Malone (Eds.), *Greed and Grievance: Economic Agendas in Civil Wars* (pp. 189204). Lynne Rienner Publishers.

warring parties to participate in international criminal activities to generate wealth through arms and drug trafficking as well as hardwood and gemstone smuggling, particularly in the developing world. In this regard, Duffield (2000, p. 74), for instance, claims that "although globalization and liberalization have not caused these new forms of instability, they have made it easier for warring parties to establish the parallel and transborder economic linkages necessary for survival."[37] In brief, compared to the grievance-based arguments, the greed perspective particularly points out the political economy of warring parties, be they ruling elites or rebel actors, in prolonging civil wars for survival. As Keen (2000, p. 24) succinctly puts it:

> "Conflicts have seen the emergence of war economies (often centered in particular regions controlled by rebels or warlords and linked to international trading networks). Members of armed gangs have profited from looting and other forms of violent economic activity. And chains of command have become notably weak […]. These developments add to the difficulties of bringing violence to an end, both because many may have a vested interest in prolonging violence and because "leaders" may be unable to control their followers."[38]

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[37] It is important here to note that Duffield (2000, pp. 84–85) argues that such war economies in the Global South are less likely to exist unless they have "Northern commercial complicity" in reaching intercontinental smuggling networks. Charles Taylor of Liberia and the National Union for the Total Independence of Angola (UNITA) hereof are well-known instances of the close network and complicity of the Global South and the North in generating and maintaining war economies through smuggling hardwoods and diamonds, respectively. For more information with regard to the nexus between war economies and globalization as well as the privatization of violence for personal wealth, please see: Duffield (2000). Globalization, Transborder Trade, and War Economies. In M. R. Berdal & D. Malone (Eds.), *Greed and Grievance: Economic Agendas in Civil Wars* (pp. 69–90). Lynne Rienner Publishers.

[38] With regard to the impact of economic incentives on rebel recruitment, Weinstein (2005) particularly points out how economic incentives undermine rebel groups in the long run through transforming both character of rebels and conduct of rebellion. Although he acknowledges that economic incentives are necessary for weak rebel groups to sustain their recruitment activities against mighty governments, Weinstein argues that economic incentives, such as the exploitation of natural resources, could attract an

In order to understand what causes varying duration and outcomes of civil wars, Collier et al. (2004) apply the greed and grievance arguments to their model. Compared to their "rebellion-as-investment" concept of the grievance perspective, their model finds statistically significant evidence for the "rebellion-as-business" concept, in which economic inequality and *per capita* income are found to be significant factors in prolonging civil wars. According to this, low *per capita* income and high-income inequality (and ethnic division to some extent) among individuals are likely to increase civil war duration through the low opportunity cost for would-be rebels. That is to say, would-be rebels are much more inclined to participate in rebel groups when they expect more advantages from rebellion during and/or after the conflict than from nonparticipation. Particularly severe economic problems and the risk of exposure to violence might force would-be rebels to participate in rebel groups to sustain their lives when the cost of participation is low, and the advantages of participation are high compared to non-participation. Under such an opportunity cost structure, people with relatively low income are more likely to participate in rebel groups to gain economic/financial benefits for maintaining their lives, thus leading to increased human resources for rebel groups to sustain their warfighting efforts against government forces (Justino, 2009).

The continuation of wars, however, is not only dependent on the economic motivations of people and the opportunity cost structure. In addition to what motivates

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increased number of "opportunistic joiners" instead of committed ones on whom rebel groups rely in the long run. For him, such participants are mainly oriented towards loot-seeking by waging indiscriminate violence for wealth accumulation instead of committing to the common cause in the long run. For more information about the "rebel resource curse" theory, please see: Weinstein (2005). Resources and the Information Problem in Rebel Recruitment. *Journal of Conflict Resolution, 49*(4), 598–624.

people to participate in rebel groups at the individual level, we also need to look at how rebel groups sustain their warfighting efforts at the group level. Similar to the rebel motivation arguments of the greed perspective, the rebel financing perspective emphasizes the significance of the financial instruments of rebel groups in sustaining their warfighting efforts against mighty governments. In this regard, the literature points out two critical factors: (i) the exploitation of natural resources and (ii) the international smuggling networks (Conrad et al., 2019; Fearon, 2004; Ross, 2004).

Regarding the impact of the two factors mentioned above on civil war dynamics, Fearon (2004) argues that the duration of a civil war depends on where the funding of rebel groups originates. According to him (2004a, pp. 283–284), “the use by rebel groups of finances from contraband such as cocaine, precious gems, and opium" is likely to result in prolonged civil wars by providing necessary arms and funding for rebel groups to sustain their fighting. However, it is necessary to distinguish the types of resources since they affect civil war dynamics differently. For instance, according to Ross (2004, pp. 340–347), although dependence on mineral resources, particularly oil, is likely to result in separatist intrastate war onsets, they are not associated with prolonged civil wars. Gems and drugs, on the other hand, are more likely to prolong ongoing civil wars by providing funding for rebel groups through contraband. Moreover, agricultural products and primary commodities are associated with neither the initiation nor the duration of civil wars. In addition to categorizing natural resources as lootable and non-lootable for rebel groups, how rebel groups utilize such resources also matters. According to this, the methods of resource utilization, namely extortion and smuggling, are likely to impact the duration of civil wars differently. By providing “a source of funding that is not tied to a specific location and can easily be diversified

to include other smuggled resources and goods," natural resource smuggling is considered a much more determinant factor in prolonging civil wars compared to natural resource extortion (Conrad et al., 2019, p. 612).

In contrast to the pro-arguments about the prolonging effects of natural resource exploitation on civil war dynamics, others claim that lootable resources are more likely to shorten civil wars through several mechanisms (Humphreys, 2005; Wiegand & Keels, 2019). Accordingly, natural resources are more likely to result in shorter civil wars since funding derived from such resources makes one of the warring parties more powerful to defeat the other militarily in a short time. Oil wealth, in particular, is much more likely to result in shorter civil wars since such wealth makes governments more flexible in providing economic incentives to hard-liners during peace negotiations (Wiegand & Keels, 2019). Moreover, the existence of natural resources makes external parties more inclined to intervene in such civil wars when their interests are threatened (Humphreys, 2005). Since my main concern here is understanding how rebel leaders/groups sustain their violence through public support and recruitment, I argue that natural resources can provide the necessary financial resources for rebel groups to captivate people's economic motivations and thus continue their warfighting efforts. Therefore, I consider natural resources, be they oil, gems, timber, opium, or food crops, exploitable resources for the financial well-being of rebel groups and the continuation of civil wars.

2.1.3 Opportunity Structure, Feasibility & Organizational Dimensions

The arguments above revolve around *why* people participate in rebel groups (greed and grievance) and *how* such groups sustain their warfighting efforts against governments (resource exploitation and smuggling). However, these greed and grievance-based arguments do not clearly explain *when* and *how long* people take arms

and rebel groups start and continue fighting against mighty governments. It is evident from the literature review above that the socio-political and economic motivations for would-be rebels and the financial instruments of rebel groups are seen as determinant factors in explaining civil war onsets as well as civil war durations and outcomes. Nevertheless, the overemphasis on the greed perspective in the related literature is criticized for being too simplistic in understanding complex civil war dynamics.[39] Therefore, scholars call attention to the need for a new perspective beyond the greed *versus* grievance dichotomy, in which the complexity of civil wars can be understood in a way that all these factors, namely greed, grievance, and "opportunity structure," play essential roles in generating and sustaining violent acts between rebel groups and governments (Berdal, 2005; Hoeffler, 2011; Humphreys & Weinstein, 2008; Keen, 2011).

In this regard, particularly Collier et al. (2008) and Fearon and Laitin (2003) point out the significance of "opportunity structure" along with economic motivations in civil wars. According to Fearon and Laitin (2003, p. 75), "the main factors determining [civil wars] are not ethnic or religious differences or broadly held grievances but, rather, conditions that favor *insurgency*." Although Collier (2000b) and Collier and Hoeffler (1998, 2004) implicitly point out the role of the opportunity

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[39] According to Keen (2011, pp. 763–775), the reasons why Collier's greed perspective has become much more popular than Stewart's grievance-based arguments are based on several factors: (i) despite the existence of previous works on the same topic, the claim that economic motivations of rebellion are the major driving factor for people to participate in rebel groups is shown as a new research agenda, (ii) the complex civil war dynamics is particularly simplified and tailored for policymakers and a broader audience, and (iii) the analysis is convenient with the current neoliberal economic policies, the necessity of Western humanitarian interventions in failed states, and the legitimation of repressive governments despite their human rights violations. For more information regarding Keen's critique of Collier's greed perspective, please see: Keen (2011). Greed and Grievance in Civil War. *International Affairs, 88*(4), 757–777.

structure in addition to what motivates people, namely greed arguments, Collier et al. (2008) particularly demonstrate the significance of "feasibility" in the outbreak of civil wars. According to this feasibility hypothesis, militarily and financially conducive environments -low opportunity cost and high utility of participation- are more likely to result in civil war initiations by political entrepreneurs in which would-be rebels are more inclined to participate in rebel groups for their private gains. For Collier et al. (2008) and Fearon and Laitin (2003), the feasibility hypothesis or the viability of rebellion is superior for understanding when and how long people participate in rebel groups since motivational arguments are generally used to understand why people take up arms against governments. Although I find their arguments an indispensable part of civil war dynamics since the balance of power between governments and rebel groups determines whether rebel groups initiate and continue their fighting, I still argue that economic motivations are not the sole factor affecting mass mobilization. Emotional motivations, particularly horizontal inequalities and discriminatory state policies, make up the other part of the story. Emotional motivations are more likely to make people commit violent acts for their security, but economic incentives trigger individuals to take advantage of low opportunity costs in risky situations. Therefore, both emotional and economic motivations and the opportunity structure should be incorporated into the analysis of civil war dynamics.

In the literature on civil war dynamics, geographical factors, state capacity, and the balance of power between governments and rebel groups come to the fore as factors affecting the opportunity structure (Balcells & Kalyvas, 2012; Buhaug et al., 2009; Buhaug & Gates, 2002; Caverley & Sechser, 2017; Cunningham et al., 2009; DeRouen Jr. & Sobek, 2004; Greig, 2015; Moore, 2012; Mukherjee, 2014; Rustad et al., 2008;

Walter, 2006). Specific geographical factors, such as rough terrain, closeness to international borders, distance from state centers, total land area, and resource-rich areas, are considered to cause prolonged civil wars by increasing rebel capacity against government forces (Buhaug et al., 2009; Buhaug & Gates, 2002; Rustad et al., 2008).[40] According to this, civil wars taking place in rough, rural, and large areas, such as mountainous regions of a country, are more likely to be protracted since rebel groups have the opportunity to hide from government forces when they are less likely to outbalance them and/or defend themselves. The same geographical factors can undermine the capacity of government forces since military operations in these areas require local knowledge of the terrain, sustainable logistics, and high moral motivation for a long time, which many warring governments lack. I find the existence of natural resources and the closeness to borders -as an accessible haven abroad and easy external support- critical factors in prolonging civil wars. However, I argue that other geographical variables, such as rough terrain, are problematic since they are more likely to explain war onsets. The continuation of fighting, however, is dependent mainly on the financial stability of rebel organizations. Additionally, it is hard to claim that such geographical features are the same throughout a country. Even though a conflict between government and rebel forces starts locally in a mountainous region, it is not a rare phenomenon for conflicts to shift from rural areas to city centers as wars progress.

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[40] Despite the conventional wisdom that the forest cover of a country is more likely to create a feasible environment for rebel groups to start and continue civil wars through forest coverage and logging, Rustad et al. (2008) argue that there is not any statistically significant relationship between them. Instead, they find that forest coverage is more likely to result in fewer and shorter civil wars. However, they argue that forest coverage is likely to increase the duration of civil wars when forests are close to coastal areas for logging through international sea trade. For more information regarding the impact of forest cover and logging on civil war onset and duration, please see: Rustad et al. (2008). Foliage and Fighting: Forest Resources and the Onset, Duration, and Location of Civil War. *Political Geography*, *27*(7), 761–782.

Resource-rich areas and closeness to international borders can lead to prolonged civil wars since they are likely to increase the fighting capacity of rebel groups against government forces. First, resource-rich areas can provide suitable goods for rebel groups to contraband for their financial wellbeing. By raiding agricultural subsistence products such as food crops or selling or exchanging valuable resources such as diamonds, timber, *et cetera*, with what they need to have in order to maintain their fighting capacity, rebel groups can protect their existence against superior government forces even if they cannot gain the upper hand in conflicts. In the same way, being close to international borders can cause prolonged civil wars since rebel groups are more likely to get external support more quickly and extensively, be it financial, human, or weapon assistance. For instance, while the Chadian rebel group (FROLINAT) got military and financial support from both Sudan and Libya, the Sudanese rebel group (SPLA) received military support from Ethiopia (see *Chapters 4* & *5*). In such situations, government forces are less likely to overcome the fighting capacity of rebel groups unless they cut off the rebel groups' connections with external actors (Bagozzi et al., 2017; Buhaug et al., 2009; Buhaug & Gates, 2002; Koren & Bagozzi, 2017).

Another important factor influencing the duration and outcomes of civil wars by creating a feasible environment for rebellion is the level of state capacity. As is well-known, the most common conceptualization of the state is the Weberian formulation: "the *monopoly of the legitimate use of physical force* within a given territory" (Weber, 1946, p. 78). After elaborating on the three types of legitimate authority, namely traditional, charismatic, and rational, Weber (1946, pp. 78–83) mainly sheds light on the bureaucratic and administrative dimensions of the modern state. As is evident in Weberian formulation, state capacity consists of military/police and

bureaucratic/administrative powers, in which a state leader dominates a given territory by the legitimate use of military/police force and penetrates civil society with the help of the bureaucratic/administrative mechanism. The third dimension to this formulation is added by Tilly (1985, p. 169): "coercive exploitation" or extractive power of states in exchange for protection against external and internal threats. According to Tilly (1985, p. 172), "[w]ar making, extraction, and capital accumulation interacted to shape European state making." Thus, the extractive capacity of states for capital accumulation to dominate a given territory by force and pacification was an indispensable part of emerging modern states, at least in Western Europe in the 17th century and onwards. In brief, as Skocpol (1985, pp. 15–17, 2008, p. 29) underlines[41], state capacity plays a central role in explaining why some states experience civil wars leading to revolutions but not others, and the measurement of state capacity requires examining the following three disaggregated features: (i) military capacity for territorial integrity, (ii) bureaucratic capacity for administrative apparatus, and (iii) extractive capacity for financial resources, such as taxation.[42]

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[41] It is important to note that Skocpol particularly emphasizes the impact of international context on both state making processes and civil wars leading to revolutions. Rather than merely relying on the Weberian conceptualization of states, she integrates the arguments of Otto Hintze into formulating the emergence of modern states in Europe as well as revolutions, in which the international context matters a lot. For Skocpol, domestic politics, international politics and autonomous role of states largely determines the success of revolutions. For more information, please see: Skocpol (1985). Bringing the State Back In: Strategies of Analysis in Current Research. In P. B. Evans, D. Ruesschemeyer, & T. Skocpol (Eds.), *Bringing the State Back In* (pp.3-37). Cambridge University Press.; Skocpol (2008). *States & Social Revolutions: A Comparative Analysis of France, Russia, and China*. Cambridge University Press. (Introduction).

[42] By conducting a factor analysis, Hendrix (2010) concludes that state capacity is best measured by examining the bureaucratic and extractive capacity of states rather than measuring their military strength. Unlike Skocpol (1985), he considers the quality of bureaucracy and the extractive capacity of states as disaggregated features of the bureaucratic capacity and examines the quality of political institutions as a third feature of state capacity. Although Hendrix (2010, p. 277) claims that military capacity does not make a sense in measuring state capacity for civil war onsets, he underlines that military capacity can

In particular, Tilly (1978, pp. 100–115) emphasizes state capacity to explain under what conditions a social mobilization, such as a rebellion, is a viable option for would-be rebels. According to his opportunity structure model, the level of state capacity determines whether a rebellion is likely to occur. If the state is capable of repressing the emerging rebellion (repression) or if the state is likely to accommodate the grievances of would-be rebels through non-violent means (accommodation), the less chance the rebellion would succeed. In the same direction, regarding the civil war dynamics, an effective bureaucratic capacity and/or a strong military can shorten the time needed for a decisive government victory and, thus, the duration of civil wars (DeRouen Jr. & Sobek, 2004).[43] Similarly, medium and low-capacity states are more likely to experience prolonged civil wars since, given their limited resources, political leaders are more inclined to choose the containment strategy instead of pursuing a decisive military victory against rebel groups (Fearon, 2004; Fearon & Laitin, 2003; Mukherjee, 2014). That is to say, weak state capacity is likely to cause prolonged civil

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play a decisive role in civil war durations. Like Hendrix (2010), Fjelde and Soysa (2009) also reach the similar findings in their studies on the impact of state capacity on civil war onsets: rather than military capacity alone, the impact of state capacity on civil wars is best measured by the distributional capacity of states and the trust in state institutions. For more information about the literature on state capacity, its different measurements, and its impact on civil wars, please see: Hendrix (2010). Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict. *Journal of Peace Research*, *47*(3), 273-285.; Fjelde and Soysa (2009). Coercion, Co-optation, or Cooperation? State Capacity and the Risk of Civil War, 1961-2004. *Conflict Management and Peace Science*, *26*(1), 5-25.

[43] Some (e.g., Greig (2015)) argue that the significance of battle locations and insurgency dispersion can point out the state capacity. According to this, when battles occur near major cities, and the insurgency disperses to other parts of that country, diplomatic talks for a negotiated settlement are more likely to occur between the government and rebel groups. That is to say, the location of battles and dispersion of insurgency can provide necessary information for the warring groups regarding their military capabilities. Such signals might force governments to reach an agreement with rebel groups since there is a higher possibility that government forces cannot gain the upper hand in such conflicts against rebel groups. For more information regarding the location of battles and the dispersion of insurgency, please see: Greig (2015). Rebels at the Gates: Civil War Battle Locations, Movement, and Openings for Diplomacy. *International Studies Quarterly*, *59*(4), 680-693.

wars since government forces are less likely to get a decisive victory on the battleground. However, rebel groups are much more likely to maintain their presence and ability to fight against weak government forces. Under such circumstances, rebel groups at least have the opportunity to prolong civil wars to create a better position for themselves in the future unless they can get a military victory over weak states. The main problem with this perspective is the emphasis on measuring state capacity on the aggregate level. In other words, such a perspective takes no account of the local variation of state capacity between the country's rural and urban areas. While low state capacity creates the opportunity for rebel groups to ignite and sustain their fighting at the aggregate level, strong state capacity in local areas is more likely to be a target for rebel groups (Koren & Sarbahi, 2018).[44]

As is evident, state capacity arguments implicitly highlight the relative military capabilities between governments and rebel groups as a factor affecting civil war dynamics. From such a perspective, the military balance between government and rebel forces can inform which actor is more likely to achieve its goals and how long the civil war can last between them. According to this, strong rebel groups are more likely to take concessions from governments and lead to shorter civil wars, whereas weak rebel groups operating in the country's peripheral areas are less likely to take concessions

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[44] By using nightlight luminosity as a proxy for state capacity, Koren and Sarbahi mainly argues that "civil war is likely to arise in countries that have lower degrees of state capacity, but also, counterintuitively, in locations within the country where the state exercises greater control" (2018, p. 2). Given that states do not maintain control across their territories to the same extent, such a variation is attributed to three causal mechanisms: (i) Rebel groups particularly aim to target areas of more state presence ("rebel gravitation"), (ii) if rebel groups emerge as a split group, they are more likely to target areas with strong state presence ("elite fragmentation"), and (iii) rebel groups react to the extensive state penetration into the countryside ("expansion reaction"). For more information, please see: Koren and Sarbahi (2018). State Capacity, Insurgency, and Civil War: A Disaggregated Analysis. *International Studies Quarterly*, *62*(2), 274-288.

from governments, thus leading to prolonged civil wars (Cunningham et al., 2009). Given the essentially dyadic nature of civil wars, it is necessary to examine not just the capacity of states but also rebel groups. In this regard, theories of social mobilization and contentious politics can provide valuable insights regarding the salience of rebel groups' organizational dimensions in civil wars (McAdam et al., 2004; Tilly, 1978; Tilly & Tarrow, 2015).[45] According to these theories, two factors are critical in understanding mass mobilization in civil wars in addition to feasibility and opportunity structure arguments: (i) leadership and (ii) organizational strength (McAdam et al., 2008). While leadership addresses the importance of "air war" by emphasizing how elites frame issues, organizational strength focuses more on the structures within which participants are controlled and channeled for "ground war" (Kaufman, 2015, Chapter 1).

Although the theories of social mobilization and contentious politics are constructed to explain the initiation of violent and non-violent mass movements in different settings, I argue that they can provide critical insights into civil war dynamics. First, leaders/elites can frame issues in order to sustain mass participation by

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[45] In his book, Tilly (1978) constructs a "static" model in which violent and non-violent collective actions are explained by the same unidirectional process consisting of five components: (i) interests of participants/groups, (ii) the organizational structure, (iii) resources participants/groups have (mobilization), (iv) the opportunity structure of participation, and (v) collective actions shaped by the changes in all these. Based on these variables, the model goes from interests to organization to mobilization to opportunity to collective action itself. Given the limitations of this model, McAdam et al. (2004) develop a new model in which they emphasize how interactions among participants/groups can change the whole processes of social movements. By doing this, McAdam et al. shed light on the "dynamic" nature of social movements instead of focusing merely on the components of a static contentious politics model. Tilly and Tarrow (2015) further elaborate on the contentious politics theory by applying the model various cases. Since their focus is broad, they examine various cases in order to show how their theory/model is externally validated. Nevertheless, as McAdam et al. (2008) claims, the emphasis is mainly on three components: (i) opportunity structure, (ii) organizational structure, and (iii) framing of issues by elites. To see how this model works in civil wars, please see: Kaufman (2015). *Nationalist Passions* (Kindle Edition). Cornell University.

manipulating people. By doing this, they generate the necessary human resources for prolonged wars. Second, the number and strength of rebel organizations can also extend the duration of civil wars if many rebel organizations try to dominate mass movements. That is to say, if one rebel group does not dominate and thus others struggle to be a leading power in warfighting efforts and/or peace processes, wars are destined to be prolonged. In her book on how terrorist organizations can demise, for instance, Cronin (2009) points out six different pathways from the history of terrorism in which terrorist organizations are ended. One of the successful strategies of governments is the "decapitation" of leaders who are deemed as the "propagandist in chief." According to this, leaders have the power to frame issues in a way that killing innocent civilians can be considered the best and the only option by followers, and thus they can generate mass mobilization for their cause (Cronin, 2009, p. 14).[46] Although Cronin warns several times that terrorist organization-ending strategies cannot be directly applied to rebel organizations in civil wars due to their contextual differences (2009, pp. 39–40), I argue that the "decapitation" strategy underlines how elites are critical actors in civil wars for sustainable mass mobilization by framing issues. When looking at leaders' framing power, one can see the importance of leadership in both South African and Sudanese cases. For instance, President F. W. de Klerk in South Africa addressed white fears by

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[46] According to Cronin (2009, Chapter 1), the decapitation strategy has two sub-strategies: (i) arrest and (ii) assassination. Given the possibility of a backlash against governments, Cronin argues that arrest as a sub-strategy of decapitation is more successful than assassination. Therefore, governments must evaluate the relationship between leaders and followers before choosing one option. The other salient strategies Cronin examines are "negotiation," "repression," and "reorientation," in addition to the "success" or "failure" of terrorist campaigns. While negotiations rarely end terrorism and successes are rarely seen phenomenon in the history of terrorism, failures are the most seen result in terrorist campaigns. Also, repression strategy has many unpredictable consequences and thus could be a Pyrrhic victory for governments whereas reorientation is the Achilles heel of terrorist organizations.

framing the new power-sharing system as advantageous in the long run, thus providing a feasible environment for the end of *apartheid*. The Sudanese dictator, Jaafar al-Nimeiri, on the other hand, manipulated the fears of Southern non-Arab Christians and animists by implementing *shaira law* and declaring *jihad* in order to maintain his power with the support of Northern Arab Muslims, thus causing another prolonged civil war in Sudanese history (Kaufman, 2015, Chapter 3, 6).

Another important insight of social mobilization and contentious politics theories is the strength and number of actors in civil wars (Cunningham, 2006; Pearlman, 2009, 2012; Pearlman & Cunningham, 2012; Stedman, 1997, 2003). According to this, the competition among actors to be the decisive power in war processes is more likely to cause prolonged civil wars. Stedman's "spoiler problems" theory (1997, 2003), for instance, demonstrates that peace processes are likely to create "spoilers" who consider peace agreements unbeneficial for their goal, be it total, limited, or greedy.[47] By sabotaging ongoing peace processes, "spoilers" try to prevent their preferences and interests from a demise in the post-conflict environment. Therefore, opponent groups aim to undermine peace talks since the continuation of fighting can be more advantageous for themselves, or they aim to give their demands a voice in the post-conflict environment by showing their military might. In this regard, non-state actors struggle for dominance in peace processes in order to inject their demands into

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[47] According to Stedman (1997, pp. 10–11), "spoilers" can be categorized under three groups based on their goals and their commitments to reaching them: While (i) "limited spoilers" aim to get recognition, addressing their grievances, power-sharing, and security, (ii) "total spoilers" aim to have total power and exclusive representation of the community for their unquestionable preferences. Last, (iii) "greedy spoilers" lies between these two extreme categories and their preferences are constructed upon the cost-benefit analysis of a situation. For more information on Stedman's typology of "spoilers," please see: Stedman (1997). Spoiler Problems in Peace Processes. *International Security, 22*(2), 5-53.

peace agreements and/or show audiences which group is the legitimate actor in representing their communities. By examining the fragmentation within and between actors in the Palestinian case, for instance, Pearlman (2009, 2012) points out how the lack of cohesion among non-state actors leads to the increased use of violence due to the questioning of the legitimate representation of the community. Thus, "spoiler problems" are not only related to the undermining of peace processes by opponents for a more advantageous position but also to a change in the balance of power in favor of one group. In brief, one can claim that the more actors struggle for dominance in peace processes, the more likely that civil war lasts since the number of "veto players" in peace processes sheds light on how divergent preferences and interests actors have for the post-conflict environment (Cunningham, 2006; Pearlman & Cunningham, 2012).

Scholars also point out the goals and warfare types of warring parties in creating a feasible environment for rebellion (Balcells & Kalyvas, 2012; Caverley & Sechser, 2017; Walter, 2006). Against secessionist insurgencies, for instance, governments are reluctant to compromise for a negotiated settlement since any concession is likely to be considered weak state capacity by rebel groups. Based on this information, rebel groups can demand extra concessions from governments in future confrontations. Therefore, as Walter (2006) indicates, governments are more likely to bear the burden of lengthy and intense civil wars against rebel groups in order to build a deterrent "reputation." Such an argument is plausible when separatist rebel groups aim to dismantle the territorial integrity of states. Nevertheless, it is hard to support the same argument when rebel groups' goals transform from separation to power-sharing or decentralization goals since the reputation argument does not distinguish the goals of separation, power-sharing, and decentralization. Power-sharing and decentralization can be resolved in a shorter

duration than separation goals, or, at least, the intensity of civil wars can be alleviated by changing the goal of rebel groups from separation to power-sharing or decentralization.

Regarding the impact of warfare type on civil war dynamics, scholars point out the importance of rebel groups' warfare types (Balcells & Kalyvas, 2012), arms deployment of governments (Caverley & Sechser, 2017), and weapons transfers to warring parties during a war (Moore, 2012). Compared to "conventional" and "symmetric non-conventional warfare," "irregular warfare" is more likely to lead to prolonged civil wars ending in government victories. Given their military weakness in irregular warfare, rebel groups require a longer time for broad public support to sustain their fighting will and capacity. Governments, however, need to launch an intense military campaign against rebel groups with their superior military technology to prevent the formation of public support for rebel groups. These two conditions lead to prolonged civil wars but generally end in government victories.[48] Furthermore, if governments use "combined arms militaries" -a combination of "mechanized infantry, armor, and aircraft"- they are more likely to experience shorter civil wars since such arms deployments signal the military capabilities of governments, thus helping to overcome the information problems between government forces and rebel groups (Caverley & Sechser, 2017, pp. 704–705). Last, transferring major conventional

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[48] Balcells and Kalyvas (2012) distinguish "irregular," "conventional," and "symmetric non-conventional" types of warfare. According to this typology, "irregular" war is a warfare type in which rebel groups fight with light weapons in a guerrilla fashion, and when confronting government forces, they tend to hesitate from direct contact. In "conventional" wars, warring parties fight with heavy weapons against each other in a conventional manner, with pitched battles and clear frontlines. "Symmetric non-conventional" warfare, on the other hand, is "those fought by governments and rebels who are matched at a low level of military sophistication" (2012, p. 7).

weapons to rebel groups increases civil war intensity, but their transfers to governments make civil wars much more prolonged since such arms transfers change the aim of governments to the decisive military victory (Moore, 2012). Although all these arguments underscore the importance of warfare type and military arms on the balance of power between governments and rebel groups, thus civil war dynamics, the underlying causal mechanism here is more related to how to overcome the information problems between warring parties. As mentioned earlier, since the bargaining failure arguments are inherently perceptual and thus harder to be measured, I argue that variables about warfare type and military arms could be problematic to be included in my theoretical model. Furthermore, many civil wars follow the irregular warfare perspective in dealing with mighty government forces. Thus, a variable in which a variation is not observed cannot be expected to cause a change in civil war dynamics.

2.1.4 Local, Regional & Systemic Factors

The civil war literature reviewed so far explains the dynamics of civil wars at the state and sub-state levels. That is to say, scholars tackle the issue from either an individual or a group/state perspective. While the literature points out the significance of motivations and opportunity structures for people's participation in rebel groups, the same literature also emphasizes how rebel groups finance their warfighting efforts, what kinds of problems warring parties struggle with, and which conditions favor rebellion against governments. Despite their significant impacts on civil war onsets, durations, and outcomes, these micro and meso-level arguments miss another critical dimension of civil wars at the macro level: systemic and regional factors. As K. S. Gleditsch (2007, p. 305) succinctly points out, "understanding the dynamics of civil wars and the prospect for their resolution requires that we consider potential contributing factors both within

states and in transnational relations and interactions across state boundaries." In this regard, this sub-section reviews the macro-level arguments regarding civil war duration and outcomes by examining three significant factors: (i) the structure of the international system during the Cold War and its aftermath, (ii) the changing international economic system after the 1970s, and (iii) the extra-legal regional networks (N. Anderson, 2019; Armstrong & Rubin, 2002; Duffield, 2000, 2001; Hironaka, 2005; Posen, 2017; Studdard, 2004).

From a macro perspective, Hironaka (2005) argues that the reason why the world has experienced prolonged and intense civil wars, particularly in the post-World War II period, relies on the changes in the international system. Compared to the 19th century state formation process in Europe, the 20th century witnessed an increasing number of weak states in Africa and Asia entering the international system as equal sovereigns. These weak states, considered *de jure* equal sovereigns but *de facto* in need of foreign aid and support, were mainly the result of the decolonization process between 1945 and 1960. Although protracted civil wars mainly occur in such weak states, two structural factors of the post-World War II period have affected the existing trend of civil wars: (i) the Cold War and (ii) the increasing number of external interventions (Hironaka, 2005, pp. 19–20). Under the Cold War conditions, weak states received military, financial, and technical support from either the United States or the Soviet Union, depending on their ideological positions. Such aid from antagonistic superpowers has affected the military balance on the ground between governments and rebel groups, creating a situation where none of the warring parties can defeat the other, thus prolonging civil wars. In addition to such external aid and support, great powers, former colonizers, regional powers, and neighboring states have also been inclined to intervene

-directly or indirectly- on the side of either governments or rebel groups to protect their parochial interests. Similar to the consequences of foreign aid and support, such external interventions have contributed to prolonging the duration of civil wars by changing the military balance between warring parties. As is evident, the weak state structure induced by the decolonization process, getting foreign aid and support due to the ideological struggle between the superpowers during the Cold War, and the tendency of external states to intervene have caused an increasing number of prolonged civil wars in the post-World War II period (Hironaka, 2005, pp. 20–28).

Despite such an emphasis on the role of the Cold War through foreign aid to weak states and the increasing number of external interventions due to the changing meaning of sovereignty, Posen (2017) points out the impact of changing polarity in the international system in the post-Cold War period. Contrary to liberal expectations (see Fukuyama (1989)), the emergence of an increasing number of middle powers in the post-Cold War period, particularly after the "unipolar moment" of the 1990s, has created a multipolar international system in which multiple actors compete with each other to gain relative advantages. According to Posen (2017, pp. 171–172), in the emerging multipolar world in the post-Cold War period, great powers are more likely to be concerned with other emerging powers in order to check the balance of power among themselves rather than focusing on ending civil wars in a shorter time. The lack of consensus on why, when, and how the international society should intervene in such civil wars has created a political vacuum in which external interventions have been considered a means to fill this vacuum by the norm of "responsibility to protect." Under such competitive conditions, the multipolar international system has motivated external actors to terminate ongoing civil wars by interventions rather than conducting

preventive diplomacy through the United Nations system. As mentioned earlier, this increasing number of external interventions is more likely to generate protracted civil wars since they constitute an obstacle to forming the military balance and, thus, peace negotiations between warring parties. As Posen (2017, p. 176) succinctly puts it, "rather than producing either a victory or a hurting stalemate, competitive interventions produced a dynamic military competition, in which the competitors could always believe that with a bit more outside help, they might prevail." Consequently, the competitive nature of a multipolar world and the international society's reluctance to intervene early in civil wars are the driving forces behind the increasing number of prolonged civil wars after the unipolar moment of the 1990s.

In this regard, civil war scholars underline the impact of external interventions in civil war dynamics, as the bargaining failure arguments point out. Particularly in ethnically polarized societies, for instance, third-party interventions make civil wars long-lasting since such interventions reduce the coordination costs of rebel groups (Elbadawi & Sambanis, 2000). Even the mere expectation of outside support for rebel groups is more likely to cause prolonged civil wars since such outside supports make rebel groups sustain their fighting and stay away from reaching a settlement with governments until they run out of resources (Akcinaroglu & Radziszewski, 2005). In addition to the general impact of external interventions, another critical issue is third parties' intentions to intervene in ongoing civil wars (Balch-Lindsay & Enterline, 2000). While some argue that interventions in general, be they neutral or biased, are considered to extend the duration of civil wars rather than shortening them due to their conflict management aims (Regan, 2002), others point out that biased interventions are more likely to cause short-lasting civil wars since the impartiality of intervenors is insufficient

to convince warring parties that ending conflicts is in their interest (Aydin & Regan, 2012; Cunningham, 2010). As for the content of external interventions, multilateral economic sanctions are seen as more effective in reducing war durations than arms sanctions (Escribà-Folch, 2010). In military interventions, however, the level of military deployment matters: Larger military deployments increase the probability of ending civil wars in a short time (Kathman & Benson, 2019). Last, democratic intervenor states are more likely to reduce the duration of civil wars since democratic accountability and transparency make decision-makers support the would-be victorious parties in civil wars (Norrevik & Sarwari, 2021). Moreover, the strategic competition among intervening actors makes civil wars protracted as well as resistant to ending with a negotiated settlement since external actors face a dilemma to overcome: On the one hand, they want to ensure that their proxies are powerful enough to win a decisive military victory through aid and support, but they also want to refrain from provoking the other intervening parties to escalate the war, on the other. Such a required balance among intervening actors makes civil wars resistant to ending in a short time since the continuation of the war is seen as the optimum outcome for each party (N. Anderson, 2019).[49]

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[49] It is important to note that N. Anderson (2019) does not only point out the macro-foundations of prolonged civil wars. He also sheds light on how intervening actors can shape the micro-foundations of civil war dynamics between government and rebel forces "by reducing the cost of war, balancing combatant capabilities, and increasing information asymmetries" (p. 4). Furthermore, unlike Posen (2017), Anderson claims that the "competitive intervention" is decreased in the post-Cold War period by the demise of the USSR and the unipolarity of the international system under the US. I argue that this point of view does not fully reflect the post-"unipolar moment" of the post-Cold War Period, in which rising powers have been undermining the US unipolarity. Interestingly, his findings (2019, p. 10) about the impact of non-superpower interventions on civil war durations also supports the perspective of Posen (2017). For more information, please compare: Posen (2017). Civil Wars & the Structure of World Power. *Daedalus, 146*(4), 167-179.; N. Anderson (2019). Competitive Intervention, Protracted Conflict, and the Global Prevalence of Civil War. *International Studies Quarterly, 63*(3), 692-706.

Despite the importance of the international political system on civil war dynamics, systemic factors are not solely restricted to such political issues. As Duffield (2000, 2001) points out, the economic structure of the international system also affects civil war dynamics. In contrast to the conventional perspective that the international economy has become more integrated due to globalization, the "world capitalist system" has become more disintegrated since the 1970s. With the impact of neoliberal policies through deregularization and privatization, the dividing line between the North and South as the core and periphery of the global economy, respectively, has generated an exclusionary international economic system in which only the core countries and regions of the North have been able to deepen their connected economies. The peripheral countries and regions of the South, in contrast, have become much more disintegrated and excluded from the emerging informational economy of the North. This fragmented global economy that has been forming since the 1970s has supported the connection of peripheral countries and regions of the South to the core through extra-legal networks, such as international criminal activities and war economies (Duffield, 2001, pp. 2–7). As Duffield (2001, p. 14) succinctly puts it, "market deregulation has deepened all forms of parallel and transborder trade and allowed warring parties to forge local-global networks and shadow economies as a means of asset realisation and self-provisioning."[50] Given the lack of direct military, financial, and technical support from

[50] According to Duffield (2001, pp. 15–17), such changes in the international economic system since the 1970s have created a new development-security framework in which development and security are understood in a way that each one of them circularly reinforces the other. According to this, unstable states in the South should be supported by development aid from the North oriented towards reconfiguring societies so that the structural causes of civil wars are eliminated. In this regard, stability and development are considered two different sides of the same coin, and the clear demarcations between economy and security, between states and non-state actors, and between security agencies and non-governmental organizations have waned. For more information about the relationship between the "liberal peace" model

their patrons in the post-Cold War period and their exclusion from the core economic network of the North, actors in the South, be they ruling elites or rebel groups, have become much more inclined to pursue alternative means of financial well-being through extra-legal economic networks. As a result, "market deregulation and declining nation-state competence have not only allowed the politics of violence and profit to merge, but also underpin the regional trend toward protracted instability, schism, and political assertiveness in the South" (Duffield, 2000, pp. 72–73).

Unlike the criticism of Duffield (2000, 2001) towards how neoliberal policies have created war economies in the South, thus causing prolonged civil wars, Armstrong and Rubin (2002) and Studdard (2004) specifically underline the role of regional war economies in prolonging civil wars. According to Studdard (2004, pp. 3–4), although there is growing literature about the spread of civil wars to neighboring states through the spill-over mechanism, these studies miss the regional dimension of civil wars in generating "regional conflict complexes/formations,"[51] which have social, economic,

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and the post-Cold War civil wars, please see: Duffield (2001). *Global Governance and the New Wars: The Merging of Development and Security*. Zed Books. pp. 1-17.

[51] According to Armstrong and Rubin (2002, p. 3), regional conflict complexes/formations refer to "sets of transnational conflicts that form mutually reinforcing linkages with each other throughout a region, making for more protracted and obdurate conflicts." For Wallensteen and Sollenberg (1998, pp. 623–624), who first introduced this concept into the literature, such linkages could exist (i) "when there is an ethnic group straddling an international border" or (ii) when there are "direct military and political alliances or significant direct or indirect support […] to a governmental or nongovernmental group in another state." As Turner (2018, pp. 3–4) and Armstrong and Rubin (2002, p. 5) rightly warn, it is important not to confuse regional conflict complexes with the "regional security complexes theory' of Buzan and Wæver (2003, pp. 45–51), in which they emphasize analyzing security interdependence among proximate countries in terms of history, culture, and geography in specific geographical clusters particularly in the post-Cold War period. Despite the international relations perspective of the regional security complex theory, regional conflict complexes/formations shed light on how to terminate protracted civil wars from a conflict resolution perspective by examining the transnational social, economic, military, and political linkages between domestic and external actors within a specific region. For more information regarding the regional conflict complexes/formations, please see: Armstrong and Rubin (2002). *Conference Summary: Policy Approaches to Regional Conflict Formations*. New York. Center on International Cooperation.

military, and political networks among actors within a specific region. In such regional conflict complexes/formations, "people, goods, and arms [move] back and forth across borders and among 'internal' conflicts, prolonging regional conflict and preventing peaceful resolution" (Armstrong & Rubin, 2002, p. 4). Smuggling networks, refugee flows, diaspora groups, illegal goods trafficking (human, drugs, and arms), mercenaries, and transborder armed groups are some of the main regularities that can be found in many regional conflict complexes, such as West Africa, Southern Central Asia, the Andean region, the Middle East, the Great Lakes region, and the Balkans.[52] In brief, understanding why civil wars have become much more prolonged requires examining individual and group/state-level variables as well as systemic and regional factors, such as the structure of the international political and economic systems and the regional conflict formations.

Before reviewing the environmental security literature in the next section, it is important to note that over-emphasis on systemic and regional factors make policymakers and researchers omit the importance of local factors. After examining why the most extensive peacekeeping mission in history failed in ending the civil war in the Congo, Autesserre (2009, 2010, Chapter 1) concludes that the over-emphasis on international interventions' discursive frame in ending civil wars at the regional and national levels leads peacebuilders to omit the significance of rebel groups' local

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[52] According to Armstrong and Rubin (2002, pp. 5–7), by looking at four major factors, one can claim whether a region has become a regional conflict complex/formation: (i) weak state capacity to control its territory, enforce the law, and provide social services for its citizens, (ii) predatory behaviors of ruling elites, rebel groups, and even individuals due to weak state capacity, (iii) a security competition among regional actors for the control of weak and/or failed states, particularly having exploitable natural resources, and (iv) a competition for foreign aid and support among regional states, rather than cooperation to overcome their common problems.

agendas about land issues in sustaining their warfighting efforts. Such a "peacebuilding culture" diverts the attention of policymakers, peacebuilders, and scholars from the local causes of antagonism and violence, thus contributing to the failure of peace operations and the duration of civil wars. To sum up, understanding the duration and outcomes of civil wars requires not just examining the state/group level factors but also local level factors, as is the case in the Congo. Given the complex nature of civil war dynamics, a theory of civil war dynamics should explain both vertical and horizontal dimensions.

2.2 Previous Research on Environmental Security

In addition to the four conventional categories reviewed above, scholars also emphasize the significance of non-conventional factors on civil war onsets and dynamics, such as media reports, diseases, precipitation levels, and natural disasters (Bagozzi, 2016; Burgoon et al., 2015; Eastin, 2016; Enia, 2008; Ghimire & Ferreira, 2016; Keels, 2019; Nemeth & Lai, 2022). For instance, Burgoon et al. (2015) point out that media attention to human rights violations in conflicts is more likely to result in short-lasting civil wars and negotiated peace settlements since media attention is likely to invite external interventions. Regarding the impact of diseases on civil war dynamics, Bagozzi (2016) sheds light on how the prevalence of malaria among government forces results in prolonged civil wars by increasing rebel groups' resistance against government forces. Eastin (2016), Keels (2019), Ghimire and Ferreira (2016), and Nemeth and Lai (2022), on the other hand, emphasize the effects of environmental factors on civil war durations and outcomes. According to Eastin (2016), natural disasters are likely to prolong civil wars by reducing states' counterinsurgency capacity on rebel activities in conflict zones. Similarly, Keels (2019) points out how varying precipitation levels can impact the duration of civil wars. For Keels, rainfall scarcity is associated with

prolonging civil wars since the low level of precipitation leads to limited resources for both governments and rebel groups, thus decreasing both governments' and rebel groups' capacity to achieve military victory over the other. By focusing on large-scale flood events, Ghimire and Ferreira (2016) shed light on how rapid-onset natural disasters are more likely to prolong existing armed conflicts than initiate new ones. According to this, in states whose capacity is already weakened by conflicts, floods are likely to prolong civil wars due to the inefficient response capacity of states, be it providing social services to people or sustaining counterinsurgency operations against rebel groups. Nemeth and Lai (2022), on the other hand, point out how the impact of natural disasters on the start of peace processes is conditional on which party is affected by them. Compared to situations where only one party is affected, civil wars in which both governments and rebel groups are adversely affected by natural disasters are more likely to experience the onset of peace negotiations since such shocks are likely to alter actors' cost-benefit calculations regarding the continuation of fighting as well as the expectation of victory.

As shown in the literature review of civil war onsets and dynamics above, scholars have provided several answers to what factors can contribute to varying civil war durations and outcomes. It is important to note that all these variables were initially used as predictors of civil war onsets. Even though environmental problems, such as climate change-induced low precipitation levels, high temperatures, and extreme weather events[53], are utilized as other predictors of civil war onsets, very few scholars

[53] It is worth noting that in this dissertation project, climate change is seen as an exogenous factor triggering the occurrence of natural disasters, including droughts. Natural disasters, on the other hand, are considered "endogenous social phenomena," in which "disasters are not only [seen as] potential drivers of conflict and cooperation – disasters can be driven by civil and interstate tensions as well" (Reinhardt

(e.g., Eastin (2016), Enia (2008), Keels (2019), Nemeth and Lai (2022)) have examined the impact of environmental problems on civil war dynamics so far. As Busby (2018, p. 341) draws attention to, despite the insistence of the civil war literature on the contested link between environmental problems and civil war onsets, "we can start to think about whether conflicts are prolonged or shortened under certain kinds of climate change" (see also Uexkull and Buhaug (2021)). In this regard, I argue that climate change-induced environmental problems, particularly water insecurity proxied by droughts, can impact civil war dynamics (duration and outcome) through *indirect* and *conditional* causal mechanisms. Therefore, in this second section of the literature review, the environment-security nexus literature is reviewed in order to show how this theme has been studied by civil war scholars. Here, the aim is to deduce some causal mechanisms to understand how environmental problems, particularly long drought periods, can impact civil war dynamics and thus construct a theoretical model. In this context, the environmental security literature is examined under three sub-sections below: (i) environmental peace, (ii) environmental conflict, and (iii) political ecology perspectives.

2.2.1 Environmental Peace Perspective

Despite the persistent emphasis on environmental problems' adverse effects on social stability in the environmental security literature (Brancati, 2007; Ghimire &

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and Lutmar (2022, p.4). In other words, natural disasters and conflicts/peace are not understood as discrete events but rather intertwined processes. More clearly, although natural disasters impact conflicts/peace, conflicts/peace also impact natural disasters (e.g., to whom would be more likely to be affected by disasters, how disaster relief aid would be distributed, *et cetera*) as both of them are co-determined by a set of common factors. For more information on the intertwined/endogenous processes of natural disasters and conflicts/peace, please see: Reinhardt and Lutmar. (2022). Disaster Diplomacy: The Intricate Links between Disaster and Conflict. *Journal of Peace Research, 59*(1), 3-11.

Ferreira, 2016; Nel & Righarts, 2008), some argue that anti-social behaviors, including violence, could decrease when people experience environmental problems, particularly natural disasters (Bergholt & Lujala, 2012; Egorova & Hendrix, 2014; Kreutz, 2012; Slettebak, 2012; Walch, 2014). Natural disasters, particularly rapid-onset ones such as earthquakes and volcanic eruptions, are more likely to initiate civil wars by causing scarcities of "life-sustaining resources," mostly in developing countries. By increasing the existing grievances and motivating people to exploit the existing resources, mainly in middle-income anocracies having high-income inequalities, civil wars are more likely to be longer (e.g., the 1999 and 2004 earthquakes in Colombia and Sri Lanka, respectively; see Brancati (2007), Nel & Righarts (2008)). Similarly, in states whose capacity is already weakened by conflicts, floods are more likely to result in prolonged civil wars due to the inefficient response capacity of states, be it providing social services to people or sustaining counterinsurgency operations against rebel groups (Ghimire & Ferreira, 2016).

Despite these adverse ramifications of natural disasters on social stability, the environmental peace perspective claims that natural disasters are more likely to result in substantial social cohesion in the affected country by eliminating the importance of differences in an urgent situation. That is to say, natural disasters make countries less risky for civil war initiation and help incumbents sustain power by directing attention away from critical social problems. Therefore, the root causes of civil wars need to be sought in social, economic, and political factors rather than environmental problems.[54]

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[54] According to Busby (2018, p. 340), there is an ongoing scholarly debate between "the Berkeley economists" and "the PRIO group" about the role of climate factors in civil war onsets. For the Berkeley school, climate change-induced environmental problems can directly cause the initiation of civil wars (e.g., Burke et al. (2009), Hsiang et al. (2011); (2013)). For the PRIO school, however, the climate factors

In this regard, as Slettebak (2012, p. 165) underlines, although natural disasters could impact the risk of conflict initiation, the outbreak of violence depends on whether the affected population is vulnerable to natural disasters due to their marginalized economic, political, and social positions.

From the environmental peace perspective, climate change-induced natural disasters are likely to reduce the growth rates of a country, but such economic shocks are less likely to ignite an armed conflict between groups (Bergholt & Lujala, 2012). Instead, natural disasters are considered a ripe moment for a peace settlement between governments and rebel groups due to the increasing demand for disaster relief and the decreasing capacity of warring parties for fighting, particularly when both governments and rebel groups are simultaneously affected by the same natural disaster (Nemeth & Lai, 2022). In the post-natural disaster period, people are more likely to demand social services from their governments to alleviate their problems. Such increasing demands on state capacity are likely to make governments more inclined to provide concessions to rebel organizations for a peace settlement. Therefore, the severity of disasters, the level of democracy, and who is affected by the natural disaster are seen strongly correlated with natural disaster-induced peace settlements among warring parties (Kreutz, 2012, p. 484; Nemeth & Lai, 2022).[55]

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are less likely to cause civil wars without considering social, economic, and political factors into account (e.g., Buhaug (2015); (2016)). As is evident, the scholarly debate revolves around whether climate change-induced environmental problems can cause civil wars through direct or indirect causal mechanisms. For more information on the current state of the environmental security literature, please see: Busby (2018). Taking Stock: The Field of Climate and Security. *Current Climate Change Reports*, *4*(4), 338–346; Koubi (2019). Climate Change and Conflict. *Annual Review of Political Science*, *22*(1), 343–360.

[55] It is important to note that there is no consensus in the environmental security literature about the impacts of natural disaster intensity and regime types on civil war onsets. In this regard, Brancati (2007) claims that while the intensity of natural disasters impacts civil war onsets, the regime type does not have

By examining the effect of the 2004 tsunami on civil wars in Indonesia and Sri Lanka, for instance, Enia (2008) concludes that natural disasters are likely to create a situation in which states and rebel groups show their legitimacy and capacity for social services to people. By providing social services to people in need instead of governments, rebel groups are likely to increase their relative power and thus change their position at the bargaining table with governments. While the Free Aceh Movement could not provide sufficient disaster relief for the Indonesian population, the Tamil Tigers in Sri Lanka were able to provide sufficient social services. According to Enia (2008, pp. 9–10), the difference in rebel capacity to provide social services explains why Sri Lanka experienced a prolonged civil war compared to Indonesia. It is important here to note that the financial resources of rebel groups are one of the most critical factors for the viability of peace processes in natural disasters. Relying on the remittances from the Tamils abroad, for instance, the Tamil Tigers were resistant to the adverse consequences of the 2004 Indian Ocean tsunami on their organizational and military capacities and thus less motivated for peace. In contrast, the Free Aceh Movement was relied on public support to conduct its operations, thus more motivated for peace with the government during the tsunami (Beardsley & McQuinn, 2009).

Similarly, Walch (2014, pp. 48–49) draws attention to specific conditions in which rebel groups and governments collaborate in alleviating the adverse effects of natural disasters. Comparing different behaviors of two rebel groups in disaster relief operations after a typhoon in the Philippines in 2012, namely the Moro Islamic

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the same impact. Nel and Righarts (2008), on the other hand, argue that the intensity of natural disasters does not impact civil wars, whereas the regime type, particularly anocracies, has a significant impact on the risk of civil wars.

Liberation Front and the New People's Army, two specific conditions are seen as the determining factors in whether rebel groups collaborate with the government forces: (i) the hostility level between rebel groups and governments prior to a natural disaster and (ii) the type of social contract that rebel groups have with their local population. According to this, rebel groups with low hostility levels with governments but strong social contracts with the local population, such as the Moro Islamic Liberation Front, are more likely to collaborate with the states in disaster relief operations than those with high hostility levels and weak social contracts, such as the New People's Army (see also Beardsley and McQuinn (2009)).

Although studies above particularly highlight the role of rapid-onset natural disasters in creating a ripe moment for peaceful resolution in the immediate post-natural disaster period, Egorova and Hendrix (2014) argue that rapid-onset natural disasters, such as the Indian Ocean Tsunami in 2004, could also generate long term peace conditions when active mediation efforts by external actors seize such ripe moments for a peaceful resolution. Different outcomes of the Indonesian and Sri Lankan civil wars after the 2004 Indian Ocean Tsunami can be mainly explained by two factors: (i) the politicization of disaster relief aid and (ii) the active mediation efforts by external actors. While Indonesia successfully delivered disaster relief aid to those in need without making it a tool for political issues with the Free Aceh Movement, the Sri Lankan government failed to separate the aid management from the existing conflict with the Tamil Tigers. Furthermore, the former president of Finland, Martti Ahtisaari, took an active role as a mediator between the Indonesian government and the Free Aceh Movement to seize the ripe moment induced by the post-natural disaster conditions. In contrast, Norway was reluctant to take a leading role in mediating between the Sri

Lankan government and the Tamil Tigers (Egorova & Hendrix, 2014, pp. 3–4). In brief, these two differences are likely to explain why Indonesia and Sri Lanka followed different paths after the 2004 Indian Ocean Tsunami.

Even though the environmental peace perspective argues that natural disasters can create a ripe moment to end a civil war, I still argue that climate change-induced environmental problems are more likely to cause prolonged civil wars. When looking at the arguments of the environmental peace perspective in detail, it becomes clear that state/rebel capacity and external support determine whether civil wars end with a settlement in a short time. Therefore, even from the environmental peace perspective, natural disasters are still considered critical due to their devastating impacts on social stability. Two factors, aid capacity and external support, moderate adverse consequences of natural disasters and thus creates a ripe moment for ending ongoing civil wars.

In short, the environmental peace perspective includes "the multiple approaches and pathways by which the management of environmental issues is integrated in and can support conflict prevention, mitigation, resolution and recovery" (Ide et al., 2021, pp. 2-3). Therefore, it seeks ways for sustainable and equitable management of natural resources to avoid conflicts, protection of people's livelihoods to prevent the recruitment of environmentally vulnerable groups by rebel groups for economic incentives, and opportunities for cooperation among social groups who share the same environmental issues for conflict resolution. Although the environmental peace perspective began as a reaction to the scarcity-based climate-conflict nexus in the 1990s and argued that environmental issues could potentially contribute to cooperation and peacemaking processes among social groups, such as *transboundary waters/rivers* and

peace parks, in the late 2000s, it began examining the role of environmental issues on the post-conflict peace maintaining efforts. Since the second wave, the environmental peace perspective has gained momentum by utilizing large-N analysis in addition to theory-driven case study approaches and introducing a variety of new research topics in the field. Today, it focuses on the role of the environment in peacemaking efforts by examining several issues in order to generate an integrative approach towards conflicts/peace (see Ide et al. (2021)).

2.2.2 Environmental Conflict Perspective

As reviewed above, although some argue that environmental problems, more precisely rapid-onset natural disasters, could cause the initiation of civil wars (Brancati, 2007; Ghimire & Ferreira, 2016; Nel & Righarts, 2008), many emphasize that environmental problems do not necessarily initiate a social catastrophe, such as civil wars (Bergholt & Lujala, 2012; Egorova & Hendrix, 2014; Enia, 2008; Kreutz, 2012; Walch, 2014). Instead, they argue that the same natural disasters could generate social cohesion when actors realize the necessity of putting the hostilities aside for the well-being of their societies. Nevertheless, the related literature mainly focuses on the nexus between environmental problems and armed conflicts in which environmental problems are considered a predictor of social instability (Busby, 2018; Koubi, 2019). In this regard, the environmental conflict perspective argues that climate change-induced environmental problems, such as low precipitation levels, high temperatures, and extreme weather events, could directly or indirectly affect social stability.

While the direct pathway arguments claim that climate change-induced environmental problems could directly affect violent civil conflicts (e.g., Bollfrass and Shaver (2015), Hsiang et al. (2011; 2013)), the indirect pathway arguments point out

that environmental factors could affect civil wars through several causal mechanisms, such as increasing food prices (e.g., Theisen et al. (2011), Wischnath and Buhaug (2014), Bazzi and Blattman (2014)), decreasing economic performance (e.g., Miguel et al. (2004), Bergholt and Lujala (2012)), and environmental migration (e.g., Koubi et al. (2018), Reuveny (2007), Brzoska and Fröhlich (2016), Raleigh and Urdal (2007)). In the following two sub-sections, both direct and indirect pathways of the environmental conflict perspective will be reviewed, respectively.

2.2.2.1 Direct Pathways

Direct pathways underscore the direct influence of environmental problems on violence instead of mediating factors between them. The neo-Malthusian and psychological perspectives generally use the direct pathway arguments. While the neo-Malthusian perspective stresses the importance of climate change-induced resource scarcities among social groups in densely populated areas where civil wars occur, the psychological perspective points out the psychological effects of environmental problems on individuals by making people more inclined to use violence in hot weather or high temperatures (Koubi, 2019).

From the neo-Malthusian perspective, both Homer-Dixon (1994, 1999) and Baechler (1999), who are the leading figures of the *Toronto School* and *Bern-Zurich Group*, respectively, argue that resource scarcities such as shortages of arable land, freshwater, forest, and fish would cause violent conflicts, especially in densely populated areas where people are more vulnerable to climate change. While Homer-Dixon (1994, 1999) particularly emphasizes the mechanisms of “resource capture” and “ecological marginalization,” Baechler (1999) points out the significance of “environmental degradation” and “environmental discrimination” on the risk of armed

conflicts. It is important to note that although these scholars acknowledge the impact of other mediating factors between environmental problems and armed conflicts, such as state capacity (e.g., Kahl (2006)), they nevertheless highlight the salience of neo-Malthusian resource scarcity arguments in explaining the initiation of armed conflicts among social groups in areas vulnerable to climate change.[56]

According to psychological arguments, environmental problems have adverse psychological effects on individuals and thus make them more inclined to use violence to cope with their problems (Koubi, 2019). From this perspective, hot temperatures are likely to increase individuals' aggression levels due to the discomforting effects of rising temperatures on people's psychology (C. A. Anderson & Bushman, 2002; Berkowitz, 1993). According to Mares and Moffett (2016), for instance, each degree increase in annual temperatures is likely to result in an almost 6% increase in homicide levels even after controlling for several social and economic factors. However, this effect is most likely to occur in Africa compared to other regions, such as Asia, Europe, and former Soviet republics. In line with these findings, Hsiang et al. (2013, p. 1212) argue that "deviations from normal precipitation and mild temperatures systematically increase the risk of conflict, often substantially" and provide empirical evidence from their quantitative analysis that "each 1-SD [standard deviation] change in climate toward

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[56] According to Deligiannis (2012), although both Homer-Dixon (1999) and Baechler (1999) emphasize the climate change-induced resource scarcity in initiating armed conflicts between social groups, they acknowledge the importance of other mediating factors. In this regard, for instance, Kahl (2006) particularly points out the state capacity factor in which "demographic and environmental stress" can weaken state capacity and thus increase the risk of civil wars by escalating the security dilemma between social groups. According to Deligiannis (2012, pp. 83–96), however, the causal mechanism should be sought at the individual level rather than the state level since environmental problems are more likely to affect human security rather than state security. For more information regarding the current state of neo-Malthusian arguments, please see: Deligiannis (2012). The Evolution of Environment-Conflict Research: Toward a Livelihood Framework. *Global Environmental Politics*, *12*(1), 78–100.

warmer temperatures or more extreme rainfall increases the frequency of interpersonal violence by 4% and intergroup conflict by 14%." In another study, Hsiang et al. (2011) support this argument that climate change plays a prominent role in the stability of societies. By comparing the probability of civil conflicts in El Nino years to La Nina years, Hsiang et al. (2011, p. 438) conclude that the possibility of new conflicts in the tropics doubles in El Nino years compared to La Nina years and that the El Nino Southern Oscillation (ENSO) cycles since 1950 are associated with the increased incidence of new armed conflicts in the world.

Despite emphasizing how climate change-induced environmental problems negatively impact individual psychology (Bollfrass & Shaver, 2015), others argue that rising temperatures are likely to increase the risk of social unrest and civil war onset through agricultural disruptions and migration, particularly in Africa and Asia (Burke et al., 2009; Obradovich, 2017; Yeeles, 2015). According to Burke et al. (2009), for instance, if the current greenhouse gas emissions remain the same, the risk of civil war onset increases by almost 50% until 2030. Similarly, at around 28 degrees Celsius, social unrest in urban areas is much more likely to occur due to migratory responses of individuals to rising temperatures (Yeeles, 2015). Obradovich (2017), on the other hand, claims that the adverse effects of hot weather on voter well-being are more likely to result in frequent electoral losses of incumbent parties. By 2099, an overall reduction in the vote share of incumbent parties, particularly in developing countries where climate change-induced high temperatures will show the most severe adverse effects, is much more likely to occur.

Although all these direct pathway arguments shed light on how climate change-induced environmental problems can cause adverse effects on individual and social

stability, they are insufficient to explain complex civil war dynamics for two reasons: (i) They do not provide precise causal mechanisms about how environmental problems lead to social unrest/violent conflicts and (ii) they ignore the importance of social, economic, and political factors in generating and prolonging violent conflicts within states. Therefore, I argue that the direct pathway arguments are not able to provide a holistic perspective about how environmental problems can lead to complex civil war dynamics. In the following sub-section, I will examine the indirect pathway arguments in order to show how social, economic, and political factors play a decisive role in connecting environmental problems to civil war dynamics.

2.2.2.2 Indirect Pathways

In comparison to the direct partway arguments above, in which environmental problems are directly associated with the initiation of civil wars, the indirect pathway arguments assert that environmental problems could impact civil wars through several mediating factors (Salehyan, 2008). The primary causal mechanisms frequently referenced in the indirect pathway arguments consist of (i) economic performance and (ii) environmental migration (Busby, 2018; Koubi, 2019). In order to clarify these causal mechanisms, each one of them will be examined in detail below.

2.2.2.2.1 Economic Performance

One of the most referenced causal mechanisms of the direct pathway arguments is the negative ramifications of climate change on states' economic performance. According to this argument, climate change can decrease economic growth and agricultural production, thus increasing food prices (Busby, 2018; Koubi, 2019). Considering that most developing countries' economies depend on the agricultural

sector, particularly in Africa, climate change-induced rainfall shocks are likely to cause decreased growth rates due to disruptions in the agricultural production (Miguel et al., 2004). Regardless of countries' varying social, political, and economic structures, for instance, a 5% decrease in economic growth increases the risk of civil war onset in the following year by 50% due to the low opportunity cost of rebellion. Similarly, natural disasters' adverse effects could decrease the number of inputs in the production process, thus affecting national growth negatively (Bergholt & Lujala, 2012). Thus, it can be expected that slow economic growth increases the risk of violent conflicts by exacerbating existing grievances, limiting state capacity, and easing rebel recruitment activities. Instead of short-run effects, low economic performance is more likely to show adverse effects of climate change on violent conflicts in the long run (Bergholt & Lujala, 2012, p. 160).

By focusing on export price shocks, for instance, Bazzi and Blattman (2014) claim that as each developing country exports a limited number of products, any decrease in their prices is likely to limit their national budgets. Furthermore, climate change-induced export price shocks could decrease national and household incomes, thus making state capacity weaker and participation in rebel organizations less costly. Although they claim that price shocks are not related to the onset of conflicts but shorter violent conflicts and fewer deaths (2014, pp. 3–4), I argue that export price shocks caused by climate change are much more likely to extend the duration of violent conflicts by decreasing both state capacity and the opportunity cost of participation in rebel groups.

In addition to low economic performance and growth rates, others point out climate change's direct negative impacts on agriculture and food prices (Wischnath &

Buhaug, 2014). In this regard, for instance, Meierding (2013, p. 186) recommends "a shift from the current emphasis on economic growth, in general, to a concentration on agriculture: the economic sector that is most likely to be influenced by climate change." According to this, climate change-induced low precipitation levels, high temperatures, and extreme weather events, such as droughts, are likely to decrease agricultural production and thus increase food prices. Such outcomes are considered mediating factors between environmental problems and civil wars since disruptions in agricultural production can decrease state revenue to maintain counterinsurgency operations against rebel groups but increase people's need for government social services. Therefore, high food prices can heighten grievances and motivate people to participate in rebel groups to survive since governments cannot provide necessary social services. In brief, these two outcomes are likely to create a low opportunity cost for rebellion and thus increase the risk of civil wars (Meierding, 2013, pp. 191–194).

Regarding the adverse effects of environmental problems on agricultural output, three different causal mechanisms can be identified (Wischnath & Buhaug, 2014): First, climate change-induced natural disasters, such as droughts, can decrease agricultural output, thus making rural areas experience a sharp decrease in their household incomes. Furthermore, if a country's economy depends on the agricultural sector, it is likely for that state to experience a decrease in national income, thus making state capacity unable to mitigate the adverse climate change effects. The combination of decreased individual and national incomes is likely to motivate people to use violence to resolve their economic grievances. Second, any decrease in agricultural output could increase food prices in local and possibly international markets, thus making states incapable of adequately providing social goods and services in times of need. This situation enhances

the recruitment activities of rebel groups, particularly in the affected regions. Last, if the affected country has an ethnic fault line, climate change-induced environmental problems are much more likely to exacerbate the existing ethnic polarization by economic inequalities among groups.

As a matter of fact, climate change-induced environmental problems can exacerbate the relative deprivation among ethnic groups and thus increase the intensity of conflicts between communities. The last point above implies that there is no direct and short-term connection between environmental problems and violent conflicts within societies. Instead, "ethnopolitical exclusion" is strongly associated with the risk of civil wars (Theisen et al., 2011, p. 105). Put differently, the adverse effects of environmental problems are much more related to ethnic marginalization than any other factor, particularly in a vulnerable agricultural economy. Given the opportunity for rebel leaders to exploit people's grievances and the low opportunity cost for people to participate in rebel organizations, people are more likely to rebel against governments since they do not have any other political channel to raise their grievances in times of natural catastrophes (Theisen et al., 2011, pp. 87–89).

In recent years, studies regarding the impact of climate change-induced environmental problems on armed conflicts through disrupted agricultural production have come to the fore (Uexkull & Buhaug, 2021). Although it is implied in many studies that climate change cannot have the same negative impact on agricultural production across a country geographically, this claim, so far, has been systematically examined only by a few scholars (e.g., Koren and Bagozzi (2016)). To this end, Vesco et al. (2021) examine how climate anomalies impact the probability of armed conflicts by disrupting agricultural production in vulnerable areas of agriculturally dependent countries. They

conclude that climate change-induced crop production differences trigger resource competition among destitute people due to the loss of livelihoods and exacerbate the already existing grievances in a way that rebel groups attract would-be rebels for their violent operations. By examining the impact of rainfall shortage on the Syrian Civil War, on the other hand, Linke and Ruether (2021) underline how controlling agricultural production is one of the vital strategies for both government and rebel forces during civil wars (see also Bagozzi et al. (2017); Koren and Bagozzi (2017)). According to this, either by capturing or destroying food crops in order to control financial resources in drought-hit growing seasons, both governments and rebel groups aim to take the upper hand in civil wars militarily. Although these studies deal only with armed conflicts, mainly in rural areas where agricultural production is made, the disruptions in agricultural production can also contribute to non-violent social unrest in urban areas. By examining the geolocated Twitter data from Kenya's cities, for instance, Koren et al. (2021) reveal how *perceived* "staple insecurities" consisting of food and water insecurities make people participate in demonstrations against governments in city centers, thus causing social instability.[57]

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[57] In 2021, the Journal of Peace Research (JPR) published the second special issue on the security implications of climate change. In this issue, authors demonstrated how the field has evolved on the same theme since the first special issue of the JPR in 2012. According to Uexkull and Buhaug (2021), "[p]rogress has been made in spatial and conceptual disaggregation, evaluation of plausible indirect pathways, identification of key scope conditions, and consideration of alternative insecurity outcomes through diverse methodological approaches" (p. 11). For more information regarding the progress and current state of the environmental security field, please see: Uexkull and Buhaug (2021). Security Implications of Climate Change: A Decade of Scientific Progress. *Journal of Peace Research*, *58*(1), 3-17.

2.2.2.2.2 Environmental Migration

Although some highlight the role of low economic growth, economic shocks, agricultural disruptions, and high food prices as mediating variables between environmental problems and armed conflicts, others particularly point out people's migratory responses to the adverse effects of climate change. In this regard, another critical causal mechanism of the indirect pathway arguments is environmental migration (Busby, 2018; Koubi, 2019). The association between environmental problems and armed conflicts through migration is generally constructed upon two different causal mechanisms in the related literature. First, migration can decrease the available resources in receiving communities, thus likely resulting in conflicts between receiving communities and environmental migrants due to the competition for scarce resources. Stated more directly, the rise in population density in the receiving areas induced by environmental migration can exacerbate resource scarcity, thus contributing to violent conflicts between communities (Raleigh & Urdal, 2007). Second, the balance of power between ethnic groups can worsen since in-migrants are likely to change the balance in favor of one particular ethnicity, thus promoting conflicts on existing ethnic fault lines. Furthermore, environmental migration can be considered a political ploy by a rival state, and thus environmental migrants can be seen as suspicious by receiving communities (Brzoska & Fröhlich, 2016; Reuveny, 2008).

It is important to note that when experiencing a climate change-induced problem, affected people have several options. For instance, people can either choose to stay and do nothing or to stay and mitigate the ramifications of climate change-induced problems. Another option is to leave the affected place. Choosing one option depends on several factors (Reuveny, 2007, p. 657). People in developed countries, for instance, are likely to mitigate the adverse effects of environmental problems through

their superior technological and institutional capacity. In contrast, less developed countries do not have the same economic, technological, and institutional capacity to mitigate the same adverse effects. Therefore, people in less developed countries are more likely to migrate to new locations and thus experience conflicts in the receiving community.

Regarding the relationship between receiving population and environmental migrants, Brzoska and Fröhlich (2016, p. 204) particularly emphasize "the causes, extent, goals, and consequences of the respective population movement as well as the characteristics of the receiving region, including its economic situation and the societal discourses on the necessity to integrate refugees and migrants." According to this, the environmental migration-conflict nexus is mainly mediated by three variables: (i) the vulnerability and adaptive capacity of the receiving population towards environmental migrants, (ii) the existing conflicts over identity and interests between environmental migrants and the receiving community, and (iii) the perception of and discourse about environmental migrants in the receiving population. Rather than singling out a simple causal mechanism, Brzoska and Fröhlich (2016) underscore considering these three factors in explaining the connection between environmental problems and violent conflicts.

The distinct effects of slow-onset and sudden-onset environmental problems can also impact people's perceptions in affected regions (Koubi et al., 2018). According to this, while sudden-onset and short-term environmental problems, such as floods, are less likely to cause an increase in conflict risk, slow-onset and long-term environmental problems, such as droughts, are more likely to increase the risk of conflicts. Put differently, slow-onset and long-term environmental problems worsen migrants'

perception of deprivation in the receiving communities. Such a negative perception makes migrants more likely to use violence against the receiving population (Koubi et al., 2018, pp. 908–909). Making such a distinction between slow-onset and sudden-onset environmental problems could be very helpful in seeing whether different environmental problems could lead to varying outcomes and provide more nuanced information about how, for instance, droughts and floods impact civil wars in various ways.

In recent years, scholars have focused their research on the impacts of climate change-induced environmental problems on individuals and their non-violent responses in urban areas (Uexkull & Buhaug, 2021). In other words, studies have become more individual- and social unrest-oriented rather than state- and conflict-oriented. For instance, by constructing a new *Human Security Index* for migrants in cities and conducting a survey of migrants, Adger et al. (2021) investigate whether natural hazards cause perceived insecurity for migrants in the slums of Bangladesh. According to their findings, natural hazards are more likely to cause human insecurity, such as physical and mental health problems, in the periphery of Bangladesh over time. In this regard, using survey data from Kenya, Koubi et al. (2021) question whether natural hazards cause an increased migration flow to cities from rural areas and whether environmental migrants in urban areas are more likely to participate in social movements to improve their conditions. According to them, rapid-onset natural hazards, such as floods, are more likely to trigger the flow of migrants from rural areas to cities. Moreover, environmental migrants are more inclined to participate in non-violent social demonstrations for better conditions due to the lack of attachment to the receiving community, heightened grievances, and low opportunity costs.

Similarly, Petrova (2021) tries to answer the same questions by using survey data from Bangladesh but reaches a different result: Natural disasters, be they slow- or rapid-onsets, cause internal migration from rural areas to cities as long as they damage property. Nevertheless, these migrations do not necessarily cause conflicts in the receiving communities since violent conflicts require higher organizational and financial resources and involve personal risks. Her most striking finding is that "environmental migration does not affect [even] the likelihood of protests, neither in itself nor as an addition to the remaining ongoing internal migration" (p. 34). As this and other studies show (e.g., Koubi et al. (2018)), the environmental migration pathway still lacks robust empirical evidence and causal explanation compared to the economic performance pathway. Given such limitations of this pathway, I will construct my theoretical model in *Chapter 3* based on the economic performance arguments.

All in all, in recent years, the environmental security literature has begun focusing on how climate change-induced environmental problems impact human security and non-violent social unrest in urban areas. To this end, scholars started utilizing different forms of survey data in order to understand how environmental problems impact people's perceived (in)security for participation in non-violent protests against governments in cities (e.g., Koren et al. (2021), Koubi et al. (2021), Adger et al. (2021), Petrova (2021)). This is a remarkable literature shift since past studies mainly focused on the nexus between climate variability and violent conflicts, underlining the salience of state security and rural livelihoods. Nevertheless, it is necessary to note that

the indirect pathway arguments still deal with how climatic problems impact the *onset* of uprisings instead of their *duration* and intensity.[58]

2.2.3 Political Ecology Perspective

The last critical perspective regarding the environment-conflict nexus is political ecology. In this perspective, the connection between climate change-induced problems and violent conflicts is contextualized within specific political and institutional factors, such as state capacity, economic development, political regime, and discrimination. Even though the political ecology perspective agrees with the environmental conflict perspective in claiming that climate change-induced problems could indirectly impact violent conflicts, it particularly points out the salience of economic, social, and political factors explaining the climate-conflict nexus. In other words, the political ecology perspective posits that certain factors have much more explanatory power for the link between climate change and armed conflicts than the environmental conflict perspective proposes (Busby, 2018; Koubi, 2019).

In this regard, the political ecology perspective argues that climate change-induced problems alone could not undermine human security and increase the risk of violent domestic conflicts. Instead, it argues that, along with other social, economic, and political factors, they could impact the initiation of violent conflicts. These factors could be the vulnerability and poverty of communities, weak state capacity, or migration flows (Barnett & Adger, 2007, p. 643). For instance, Hauge and Ellingson (1998) argue that

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[58] To compare the old versus new research directions in the environmental security literature, please see: N. P. Gleditsch (2012). Whither the Weather? Climate Change and Conflict. *Journal of Peace Research, 49*(1), 3-9.; Uexkull and Buhaug (2021). Security Implications of Climate Change: A Decade of Scientific Progress. *Journal of Peace Research, 58*(1), 3-17.

although land degradation makes states more inclined to experience violent conflicts, economic factors have much more explanatory power in explaining violent domestic conflicts.

In support of the arguments above, after examining the Sahel region from the environmental conflict perspective, Benjaminsen et al. (2012) conclude that environmental problems have very little evidence for the linkage between climate change and armed conflicts. According to them (2012, p. 97), three particular factors have much more explanatory power in explaining violent conflicts in the Sahel region; (i) the overuse of productive resources, such as livestock, (ii) the opportunistic behavior of rural actors as a result of the central political vacuum, and (iii) the high corruption rate among political elites over the use of resources. As is evident, behavioral factors based on interest maximization among elites and masses and the weakness of the central government are more likely to create a feasible environment for violent conflicts in the regions affected by environmental problems. Similarly, in Nigeria, two factors come to the fore in explaining the link between climate change-induced problems and violent domestic conflicts: (i) Whether or not the affected region is dependent on agricultural production, which makes people more vulnerable to natural disasters, and (ii) whether or not colonial structure (if exists) is strongly centralized (Papaioannou, 2016, p. 34).

On the other hand, Nel and Righarts (2008) argue that natural disasters can increase the risk of intrastate conflicts, particularly in less developed countries, due to the increased inequality among different groups, low economic growth rates, and the existence of hybrid regimes. According to them (2008, p. 179), natural disasters have the highest risk of violent conflicts, particularly in hybrid regimes with low economic growth and income inequality. Out of these factors, Juan and Hänze (2021) particularly

underline the horizontal inequalities among social groups in experiencing the ramifications of environmental problems. For them (2021, p. 152), “high levels of hazard inequality across ethnic, religious or regional lines may trigger antagonizing in-group/out-group processes, intergroup competition, and ultimately violent conflict.” According to their finding, if individuals are exposed to natural hazards, such as droughts, they are more likely to unite in order to alleviate the adverse effects. However, people are more prone to violence once the exposure is determined by social fault lines, such as ethnicity and religion.

As is evident, in all these cases, the adverse impacts of the rapid or gradual onset of natural disasters are contingent on the affected regions' political, social, and economic structure to deal with such environmental problems. States' economic, political, and social structures are crucial for the political ecology perspective in understanding the effects of climate change-induced environmental problems on intrastate conflicts.

It is important here to note that environmental security arguments generally link environmental problems to civil war onsets. Given the civil war dynamics literature reviewed above, scholars generally use the civil war initiation arguments in explaining civil war dynamics without making a clear distinction between them. Therefore, applying environmental security arguments to the duration and outcome of civil wars is plausible. However, one problematic aspect is that the civil war process itself can cause economic, social, and environmental problems along with political instability. Put more directly, rather than claiming that economic, social, and environmental problems lead to the extended duration of civil wars, the same factors could also result from prolonged civil wars. In brief, the causal chain proposed in such arguments could be a two-way causality that is hard to measure. Therefore, theoretical models must consider this

problematic dimension in identifying causal mechanisms between environmental problems and violent conflicts.

Chapter 3

WATER INSECURITY & CIVIL WAR DYNAMICS

Based on the literature review in *Chapter 2* concerning civil war dynamics and environmental security, this chapter aims to construct and test a theoretical model shedding light on the relationship between water insecurity and civil war duration and outcomes. In this regard, this chapter consists of two major sections. In the first section, I will elaborate on my proposed theoretical model about how water insecurity can explain varying civil war durations and outcomes. In the second section, I will conduct a specific statistical analysis, a *competing risks survival analysis*, in order to evaluate whether and to what extent water insecurity can impact civil war dynamics. In doing so, I aim to assess the impact of water insecurity on civil war dynamics across cases and to thus provide a degree of large-N evidence and external validity for my proposed theoretical model.

3.1 A Theoretical Model of Water Insecurity & Civil War Dynamics

The primary objective of this dissertation is to understand civil war duration and outcomes: why do some civil wars take longer than others, and how do these civil wars end? As can be seen in the literature review section above, scholars studying civil war dynamics (duration and outcomes) have provided several answers to these questions. What I am interested in here is whether or not environmental problems, particularly water insecurity, are one of the important factors contributing to the dynamics of civil wars. To be more precise, I aim to understand whether and to what extent water

insecurity contributes to prolonging civil wars and to their outcomes. In addition to these overarching research questions, I endeavor to evaluate the specific causal mechanisms that may connect water insecurity to civil war dynamics in practice. In this regard, this dissertation is also interested in the following research questions: What is the causal relationship between water insecurity and civil war dynamics? What are the causal mechanisms connecting water insecurity to civil war dynamics? The subsections below will elaborate on my proposed theoretical model in which the above questions can be answered.

3.1.1 Independent & Dependent Variables: Droughts & Civil War Duration and Outcomes

The dependent variable of this dissertation is *civil war dynamics*, consisting of *duration* and *outcomes*. Although civil war duration and outcomes are inextricably linked variables, as mentioned before, it is important to note that they are not the same variables. Given that civil war duration and outcomes are interconnected phenomena (Brandt et al., 2008; DeRouen & Sobek, 2004; Mason et al., 1999; Mason & Fett, 1996), I will examine how water insecurity impacts both duration and outcomes simultaneously. Nevertheless, that does not mean that the two components of civil war dynamics (duration and outcomes) cannot have any testable implications specific to each one of them. As I will examine them by employing a *competing risks survival analysis* in this chapter, the two components of civil war dynamics are considered separate but inextricably linked variables. It is evident that the unit of analysis is countries that experienced civil wars. Based on the *Uppsala Conflict Data Program* (UCDP) definition, this dissertation considers civil wars as armed conflicts between governments and rebel groups that generate at least one thousand casualties in a given

calendar year over incompatibilities concerning the control of the central government or the status of a specific territory (Palik et al., 2020, p. 8).

The independent variable, on the other hand, is *water insecurity*. It is important to note that although there has been a growing scholarly interest in the concept of water security in natural and social sciences in recent decades, the literature on water security does not have a shared conceptualization (Cook & Bakker, 2012; Pahl-Wostl et al., 2016). When looking at its conceptual development, water security was consistently considered in connection with various sectoral securities until the 1990s, such as military security[59], food security, energy security, and health security. As is evident, while water security was initially associated with developmental issues and thus referred to under the framework of the water quantity and quality problems (Falkenmark, 1986; Falkenmark et al., 2007), the concept has subsequently become much more associated with human and environmental security in which political and social problems also take place within the securitization process of water (Briscoe, 2009; Feitelson & Chenoweth, 2002; Ohlsson, 2000b; Wutich, 2020; Zeitoun, 2011).

Particularly after the 2000s, water security emerged as a distinct concept with the *Second World Water Forum's Ministerial Declaration* on water security (Bogardi et al., 2016; Savenije & van der Zaag, 2008). According to this declaration, water

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[59] According to Postel and Wolf (2001), Wolf et al. (2003) and the US National Intelligence Council (2012), water security issues are more likely to be a matter of conflict between local actors compare to states in transboundary river basins. Previously, water security issues were considered the possible causes of wars among states with an alarmist language. Later scholarly debates, however, started considering the theme as a potential cooperation area among states and a subject of limited conflict between local actors at the utmost. For more information about how water security issues cannot cause interstate wars but domestic conflicts, please see: Postel and Wolf (2001). Dehydrating Conflict. *Foreign Policy, 126*(Sept./Oct.), 60-67.; Wolf et al. (2003). International Waters: Identifying Basins at Risk. *Water Policy, 5*(1), 29-60.

security is related to "integrated water resources management" in which accessing sufficient and safe freshwater for human needs, protecting the environment for sustainable water resources, securing people from water-related hazards, such as flood and drought, protecting the economic, social, environmental, and cultural value of water by implementing pricing mechanisms, providing good governance practices for the management of water resources, and sharing water resources for the peaceful coexistence of states are considered to be the essential components of the emerging concept (The Hague Declaration, 2000). In brief, since the early 2000s, water security has been conceptualized as a human right and a human security issue in which structural, political, and social problems are considered a part of water security beyond traditional quantity and quality concerns (Floriane, 2013; Gleick, 1998; Scanlon et al., 2004).[60]

For many, the lack of consensus on the water security concept is an indication of a vibrant academic debate and a necessity to overcome the multidimensionality of water security (Briscoe, 2009, 2015; Cook & Bakker, 2012; Feitelson & Chenoweth, 2002; Ohlsson, 2000b; Pahl-Wostl et al., 2016; Wutich, 2020; Zeitoun, 2011).[61] But for others, considering the problem from a broad perspective is more likely to prevent

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[60] For more information regarding two competing discourse, namely "water productivity" focusing on the quantity and quality aspects of water resources and "water security" emphasizing structural political and social dimensions of water use, and their transformation, please see: Floriane (2013). From Water Productivity to Water Security: A Paradigm Shift. In B. Lankford, K. Bakker, M. Zeitoun, & D. Conway (Eds.), *Water Security: Principles, Perspectives and Practices* (pp.148-165). Routledge.

[61] According to Briscoe (2015), there is not any universal definition of water security and it should be conceptualized differently for developed and developing countries. As developed countries completed their infrastructure for enough safe water, they are rather interested in the social, political, and environmental aspects of water resources (water security dimension). However, developing countries still have not completed their infrastructure investments and thus more interested in water quantity and quality issues (water productivity dimension). For more information regarding the water security priorities of developed and developing countries, please see: Briscoe (2015). Water Security in a Changing World. *Daedalus*, *144*(3), 27-34.

providing the applicable resolution mechanisms for policymakers due to the lack of a suitable measurement of water security (Falkenmark, 1986; Falkenmark et al., 2007). Therefore, there is an urgent need to find common ground in which the concept of water security refers to both the productivity and security dimensions of water resources. In this regard, the *Global Water Partnership* (2000, p. 12), the predecessor of *The Hague Declaration*, defines water security as "access to enough safe water at affordable cost to lead a clean, healthy and productive life, while ensuring that the natural environment is protected and enhanced." Similarly, from academic circles, Grey and Sadoff (2007, pp. 547–548) define water security as "the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people, environments and economies." Although the definition of Grey and Sadoff is the most cited one in the literature, another highly referenced definition belongs to the *UN-Water Task Force* (2013, p. 1), in which water security is defined as:

> "the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socioeconomic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability."

When considering the three most cited definitions above, one can see that the concept of water security has five different dimensions: (i) the availability and quality of water resources, (ii) preserving the ecosystem and human health, (iii) protection from water-related hazards, (iv) good governance practices, and (v) pursuing developmental

goals. Based on these dimensions, I mainly conceptualize *water insecurity* as *the lack of adequate safe water*[62] *for human and ecosystem needs*. Put differently, water insecurity refers to the quantity and quality dimensions of water resources. Water insecurity refers to both the scarcity and poor quality of water resources due to extreme weather events, overconsumption, and pollution, and the unequal distribution of available water resources among social groups, be they different ethnicities, religious groups, and settlers in rural or urban areas (Habiba et al., 2013; Koren et al., 2021, p. 74). In a nutshell, my conceptualization of water insecurity sheds light on two dimensions: (i) the actual physical unavailability of adequate clean water resources (the *availability* dimension) and (ii) impediments to accessing them (the *accessibility* dimension).[63]

In order not to introduce an over-comprehensive but difficult-to-measure concept, I construct my conceptualization of water insecurity on extreme weather events, particularly *droughts*. In other words, I will measure water insecurity by using droughts as a proxy variable. Shedding light on water resource productivity and security dimensions, droughts can reduce the quantity and quality of available water resources

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[62] According to the US Geological Survey (2008) (USGS), safe water is defined as "water that will not harm you if you come in contact with it." According to this, "[t]o be safe, the water must have sufficiently low concentrations of harmful contaminants" including "bacteria, viruses, pesticides, petroleum products, some metals and metalloids, strong acids, and many more substances" (https://www.usgs.gov/media/audio/can-you-define-safe-water). In brief, safe water refers to the sanitization of water resources against waterborne diseases for adequate drinking water and for other uses. For more information regarding the importance of adequate safe water particularly in the developing world, please see: Elimelech (2006). The Global Challenge for Adequate and Safe Water. *Journal of Water Supply: Research and Technology – AQUA*, *55*(1), 3-10.

[63] For more information regarding the relationship between the concepts of water security and water insecurity, what factors play a role in water insecurity, and the current state of the world in terms of water insecurity, please see: Habiba et al. (2013). Defining Water Insecurity. In M. A. Abedin, U. Habiba, & R. Shaw (Eds.), *Community, Environment and Disaster Risk Management: Vol. 13. Water Insecurity: A Social Dilemma* (pp. 3-20). Emerald Books.

through extreme evaporation, saltwater intrusion, or over-consumption. Furthermore, droughts can also uncover the unequal distribution of water resources among social groups. As can be expected, every region of a drought-hit country and each social group of that society is not adversely affected equally.[64] For instance, rural areas and farmers are more vulnerable to the adverse effects of slow-onset droughts compared to urban areas and non-agricultural workers. Since their livelihoods depend on agriculture, farmers in rural areas are more susceptible to drought-induced water scarcity. Therefore, in addition to the diminishing quantity and quality of water resources, slow-onset droughts can highlight the unequal distribution of water resources and the low adaptive capacity of particular social groups.[65]

3.1.2 An Endogenous Mechanism: Actors' Strategic Calculations

As reviewed in *Chapter 2* in a detailed way, civil war scholars underline the impact of environmental problems on civil war durations and outcomes (e.g., Eastin (2016), Keels (2019), Ghimire and Ferreira (2016), Nemeth and Lai (2022)). Despite a

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[64] In environmental security literature, there is an ongoing debate about whether resource scarcity (*the supply side*) or resource abundance (*the demand side*) may lead to armed conflicts between social groups (see Koren and Schon (2023, pp. 2-4)). Although some argue that resource abundance is more likely to trigger armed conflicts, particularly violence against civilians (e.g., Koren and Schon (2023), Koren and Bagozzi (2017), Hendrix and Salehyan (2012)), my theoretical model relies on the supply side arguments (e.g., Burke et al. (2009)) in which resource scarcity, water availability and accessibility in my case, is considered to be more likely to increase the risk of conflicts between social groups.

[65] In the *International Disaster Database* (EM-DAT), droughts, wildfires, and glacial lake outbursts are considered a type of climatological natural disasters in which climatological natural disasters are conceptualized as "hazard[s] caused by long-lived, meso- to macro-scale atmospheric processes ranging from intra-seasonal to multi-decadal climate variability." Droughts, in particular, are defined as "[a]n extended period of unusually low precipitation that produces a shortage of water for people, animals and plants." It is important to note that droughts are distinctive from other natural hazards by their slow-onset processes and dualistic characteristics as physical and social phenomena. For more information regarding the categorization and conceptualization of droughts, please see the following links of the EM-DAT webpage:
(https://www.emdat.be/classification#Climatological; https://www.emdat.be/Glossary#letter_d).

degree of consensus on the impact of environmental problems on social stability, civil war scholars are nevertheless quite unclear about two dimensions of the theme: (i) Which environmental problems are more likely to result in civil wars? And (ii) which stage of civil war do environmental problems affect? For some, the type of environmental problem does not cause any substantive change in social stability (e.g., Eastin (2016), Nemeth and Lai (2022)). Others, on the other hand, point out the distinctive impact of environmental problem types on social stability (e.g., Koubi et al. (2018)). By some, rapid-onset environmental problems, such as storms, floods, and earthquakes, are considered more likely to cause social instability in the short run (e.g., Ghimire and Ferreira (2016), Brancati (2007), Nel and Righarts (2008)). But for others, slow-onset environmental problems, such as low precipitation levels and droughts, are more likely to cause social instability through several intermediating variables in the long run (e.g., Bergholt and Lujala (2012), Wischnath and Buhaug (2014), Bazzi and Blattman (2014)). Furthermore, while some claim that the negative impacts of environmental problems are likely to be seen in the increasing probability of civil war onsets (e.g., Bergholt and Lujala (2012), Wischnath and Buhaug (2014)), others stress their impacts on civil war durations (e.g., Eastin (2016), Keels (2019), Ghimire and Ferreira (2016)).

Based on this scholarly debate's two dimensions, this dissertation mainly argues that environmental problems, particularly water insecurity proxied by *slow-onset persistent droughts*, can impact *civil war dynamics* -durations and outcomes- in *indirect* and *conditional* ways. More pertinently, I argue that persistent droughts[66] that *continue*

[66] According to the National Integrated Drought Information System (2022) (NIDIS), drought is defined as "a deficiency of precipitation over an extended period of time (usually a season or more), resulting in

to exist longer than the average duration of droughts globally are distinctive from other natural hazards by their slow-onset processes and dualistic characteristics as a physical and social phenomenon. In other words, droughts are less likely to cause substantive infrastructural damage in the short term compared to rapid-onset natural disasters; instead, they are more likely to show adverse environmental, economic, and social impacts in the long run. More precisely, droughts are more likely to result in lower agricultural and economic production levels over time, particularly in agriculture-dependent countries. Such an outcome can be expected to lead to the loss of people's livelihoods and impoverishment as well as decreased state resources and capacity for territorial control and basic social services (see Eastin (2016)). Under such circumstances, drought periods can be expected to affect the strategic calculations of warring parties about whether to continue fighting or exit the war, thus impacting the durations and outcomes of civil wars. Given the interconnection between the outcomes and durations of civil wars, the decisions of warring parties to continue or exit the war affect both the outcomes and durations of civil wars.[67]

As the expected utility model of war (Brandt et al., 2008; Mason et al., 1999; Mason & Fett, 1996) and, to some extent, the ripeness theory (Zartman, 2000, 2001)

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a water shortage" (https://www.drought.gov/what-is-drought/drought-basics). Although the definition of drought is inherently persistent in order to cause serious environmental, economic, and social problems (e.g., water scarcity, low agricultural yield, famine, conflict, *et cetera*), by the concept of "persistent droughts," I mean droughts that last longer than the average duration of droughts. To operationalize the concept, I categorize droughts as persistent if they continue for more than one year in the International Disaster Dataset (EM-DAT), in which the average duration is found as approximately 10 months.

[67] Although my theoretical model argues that water insecurity or droughts are more likely to increase the incidence of prolonged civil wars, there are some in environmental security literature who argue that water availability or floods too could generate armed conflicts between social groups (e.g., Koren and Schon (2023), Koren and Bagozzi (2017), Hendrix and Salehyan (2012)). Such contradictory outcomes indicate the inherent uncertainty generated by climate change within the climate-conflict nexus.

reveals, the warring parties' strategic calculations of whether to continue the war is dependent on six factors: (i) the expectation of a military victory, (ii) the expected benefits from a military victory, (iii) the level of absorbing the cost of war, and (iv) the amount of time required for a military victory. In addition to these four factors related to the military victory, actors also consider two more factors in their strategic calculations: (v) the expectation of a military defeat and (vi) the expected costs of a military defeat. In brief, actors decide whether to continue or exit the war based on the equilibrium between the expectation of a military victory multiplied by its expected benefits and the expectation of a military defeat multiplied by its expected costs while considering the amount of time required for a military victory and their absorbing capacity of costs.

According to this, if the warring parties' expectation of victory and expected payoffs from victory diminish, but the cost of continuing the war and the time required for victory increase, the warring parties are more likely to exit the war by signing a peace treaty, rather than experiencing a military defeat or continuing to fight for a military victory. On the other hand, if the warring parties calculate that they will be in a better position with a military victory or a settlement in the future compared to a military defeat or a settlement now, they are more likely to continue fighting. Based on such cost-benefit calculations, if both warring parties choose to end the war, the war ends with a ceasefire, which would pave the way for a peace settlement. If both parties choose to continue the war, the armed conflict endures. If one of the warring sides is militarily defeated by the other, the war will end in a military victory for the winning side but in a military defeat for the losing side (Brandt et al., 2008, pp. 418–419; Mason et al., 1999, pp. 240–244).

As can be seen, the strategic calculations of the warring parties determine the outcome of civil wars, but these outcomes may also indicate, to some extent, the duration of the same civil wars. According to this, civil wars that end with a settlement may require longer durations for the warring parties to reach a "hurting stalemate" in which they realize that they could not defeat each other or that the cost of continuing the war outweighs the expected utility of a military victory (Zartman, 2000, 2001). Civil wars ending with a military victory, on the other hand, may require shorter durations since one of the warring parties, usually government forces, has superior military capabilities to defeat the other party in the early stages of the war. Put differently, although not applicable in all situations, government victories may require shorter durations given their relatively high military capabilities, whereas the military victory of rebel groups may require relatively longer durations since they need to overcome their military and organizational weaknesses against mighty government forces. Furthermore, as the war endures, each side can realize the other side's capability and resolve to continue fighting for an extended period of time, and thus they may seek the opportunity to reach an agreement since the cost of continuing the war increases (DeRouen Jr. & Sobek, 2004, pp. 305–308; Mason & Fett, 1996, pp. 549–552). As a result, the warring parties' decisions on whether to continue the war, to some extent, determine both the outcome and duration of civil wars. In brief, it can be argued that the outcomes and durations of civil wars are, to some extent, interconnected.

All in all, this dissertation expects from the relationship between water insecurity and civil war dynamics that persistent droughts are more likely to prolong civil war durations, thus increasing the probability of peace settlements and rebel military victories. As mentioned above, civil war outcomes are interconnected with civil

war durations. Therefore, the expectation that droughts will prolong civil war durations creates a certain expectation of their outcomes: peace settlements and rebel victories. Although I argue that persistent droughts are likely to extend the duration of civil wars and thus impact their outcomes, I propose that such an impact is more likely to be indirect through mediating variables, such as people's livelihoods and state capacity. Droughts can be expected to alter warring parties' strategic calculations about their warfighting efforts by damaging people's livelihoods and reducing state revenues. Such changes in relative capabilities and cost-benefit calculations are likely to affect warring parties' decisions about whether to continue the war and, thus, the war outcome. More importantly, I argue that such an endogenous causal mechanism can only occur under certain conditions. For droughts to negatively affect civil war dynamics, certain conditions must be met, such as an agriculture-based economy and discriminatory/exclusionary state policies. In countries whose economy is dependent on agriculture, civil wars can be expected to be longer since people's livelihoods and government revenues are adversely affected by droughts. Similarly, droughts can affect civil war dynamics by making discriminatory/exclusionary state policies against certain social groups worse and more visible. Therefore, given the salience of mediating and moderator variables in the water security-civil war dynamics nexus, I will elaborate on my theoretical model's mediator and moderator variables in the following two sub-sections, respectively.

3.1.3 Mediator Variables: People's Livelihoods & State Capacity

Regarding how water insecurity/persistent droughts can impact these strategic calculations and, thus, civil war dynamics, I argue that two *mediator variables*, namely (i) the *loss of livelihoods* and (ii) the *low state capacity*, play a transmitting role.

Mediator variables basically point out *how* an independent variable can impact a dependent variable. By such mediator variables, I point out how the water insecurity-induced loss of people's livelihoods and low state capacity impact strategic calculations of warring parties and, thus, civil war durations and outcomes.

According to this, persistent droughts cause agricultural disruptions in countries whose economy is dependent on agricultural production, leading to the loss of livelihoods from which people can meet their basic needs. Although people have diverse solutions to such situations (e.g., migration), another important solution mechanism for them is to join rebel groups. Under drought conditions, people are likely to participate in rebel groups mainly for two reasons: (i) increased opposition to governments due to the failure to provide basic social services to people in times of need and (ii) the desire to make a living by participating in the illegal economic activities of rebel groups (Collier & Hoeffler, 2004; Keen, 2000). In an ongoing civil war hit by a drought, people are more likely to participate in rebel groups for economic benefits through the various criminal activities of rebel groups such as pillaging, plundering, looting, trafficking, resource exploitation, *et cetera* (Collier, 2000a, 2000b; Collier & Hoeffler, 1998). Considering the non-agricultural economic activities of rebel groups, people who have lost their livelihood due to droughts can be expected to join rebel groups as the civil war continues. Given the income that rebel groups earn from such illegal activities and the increasing number of people joining rebel groups for such economic incentives, rebel leaders are less likely to exit the war by signing a peace agreement with governments in the early stages of the war. Under these conditions, rebel leaders can sustain their recruitment activities to continue fighting for military victory or better terms of an agreement in the future as long as the drought endures. As a result, sustainable

recruitment activities caused by drought make rebel leaders/groups more likely to continue fighting for military victory or better terms of an agreement in the future.[68]

Drought-induced agricultural disruptions do not only negatively affect people's livelihoods in rural areas. Considering that countries experiencing civil wars are predominantly from the developing world and most of their economies are based on agricultural production, persistent droughts can also be expected to negatively affect state capacity for territorial control and the penetration of society (DeRouen Jr. & Sobek, 2004; Fearon, 2004; Fearon & Laitin, 2003; Mukherjee, 2014). Any reduction in state capacity due to cuts in revenue resources can cause two consequences: (i) *the low penetration of society* -the administrative capacity of states is diminished as governments fail to provide basic social services to people, and (ii) *the low territorial control* -states' ongoing counterinsurgency operations are interrupted due to financial difficulties. While the first process increases the strength of rebel groups by heightening people's grievances against governments and thus increasing public support and recruitment for rebel groups, the second process creates a feasible environment for rebel

[68] In civil war literature, it is mainly stated that people generally participate in rebel groups or gangs for economic incentives when their economic situation deteriorates, whether for environmental hazards or not (e.g., Vestby (2019), The World Bank Group (2011)). Eastin and Zech (2022), however, examine whether it is possible for people to join pro-government militias when their economic situation deteriorates due to environmental shocks. By investigating the Philippines case, they conclude that people are more likely to participate in pro-government militias in times of environmental disasters only if the economic incentives offered by pro-government militias and the social status achieved by participation in pro-government militias are better than rebel groups can offer. In addition to people's cost-benefit calculations before participation decisions, they also highlight the significance of military presence in areas where rebel groups operate. The opportunity cost framework proposed by Eastin and Zech (2022) does not contradict the causal mechanisms discussed above since their arguments also rely on the cost-benefit calculations of people before participating in rebel or government forces. Furthermore, as they point out, they have no information on whether the Philippines case can travel to other civil war cases. Contrary to the general expectation in the literature, such results indicate that the Philippines example may be considered a *sui generis* or deviant case. For more information regarding the Philippines case, please see: Eastin and Zech (2022). Environmental Pressures and Pro-Government Militias: Evidence from the Philippines. *Conflict Management and Peace Science*, 1-22.

groups to continue fighting. More pertinently, economic hardships caused by droughts limit states' capacity to provide social services and security to their citizens, thus creating an opportunity for rebel groups to continue fighting by recruiting would-be rebels.

The combination of heightened grievances and weak state capacity-induced feasibility can make people side with rebel groups against governments, as rebel groups may be able to provide economic and physical security for vulnerable people and social groups during civil wars hit by a drought. In addition to heightened grievances, state capacity is another essential factor that warring parties must consider in their strategic calculations since it is one of the primary factors in creating a feasible environment for rebellion by decreasing the opportunity cost of participation in rebel groups. According to this, strong state capacity makes rebel victory in a short time less likely because of effective counterinsurgency operations against rebel groups and providing essential social services to people in times of need. On the other hand, strong state capacity increases the probability of government victory or settlement compared to rebel victory by increasing the opportunity cost for would-be rebels and undermining the feasibility of rebellion. Under these circumstances, the possible outcome is a government victory in a shorter duration or the signing of a settlement with strong rebel groups in a longer duration (DeRouen Jr. & Sobek, 2004; Fearon & Laitin, 2003; Mason et al., 1999).

3.1.4 Moderator Variables: Economy, Actors & Discrimination

As explained in the previous subsection, persistent droughts affect civil war dynamics by undermining both human and state security. Economic hardships caused by droughts can lead to prolonged civil wars by weakening state capacity and causing people to join rebel groups for economic incentives. Nevertheless, these two indirect

causal mechanisms do not operate in a vacuum. In this regard, I argue that three conditional factors moderate the nexus between water insecurity and civil war dynamics. These three *moderator variables* are related to (i) countries' *economic structure*, (ii) the *number of non-state actors*, and (iii) *discriminatory/exclusionary state policies*. In contrast to mediator variables playing an intermediating role between dependent and independent variables, moderator variables basically play a role in changing the strength and/or direction of the relationship between the two variables (see *Figure 5* below). By including such moderator variables in my model, I point out how these three factors are able to change the strength and/or direction of the relationship between water insecurity and civil war dynamics.

First of all, as can be seen from the above explanations, it can be expected that countries whose economies are dependent on agriculture would be more sensitive to the adverse effects of droughts since agricultural disruptions negatively impact both human and state security by undermining the livelihoods of people and state revenues, thus decreasing states' capacity for territorial control and the penetration of society. In countries whose economies are dependent on agriculture, droughts can lead to severe economic problems at the individual and state levels due to low agricultural output or crop failures, leading to famine and state failure. Such adverse effects of droughts on individual and state incomes can be observed mostly in Sub-Saharan African countries, such as Sudan and Ethiopia, where droughts, famines, and humanitarian crises accompany civil wars (Devereux, 2000).[69] According to this, mostly in agrarian

[69] In his piece, Devereux (2000, p. 6) lists the location, mortality rates, and triggers of the catastrophic famines that occurred in the 20th century. According to that list, the world experienced 32 devastating famines in the 20th century, half of which (16/32) occurred in Sub-Saharan Africa. Most of them (24/32) were caused by either drought (8/24) or conflict (7/24), or a combination of both (9/24). This list clearly

economies, droughts negatively interact with people's livelihoods and state capacity in a way that will affect civil war dynamics. More pertinently, persistent droughts can lead to agricultural disruptions in agriculture-dependent countries, causing the loss of livelihoods from which people can meet their basic needs. Although affected people have diverse responses to the drought-induced loss of livelihoods, such as in-migration, another solution is to join rebel groups to make a living through the role of rebel groups in illicit markets as well as in the exploitation of natural resources.

In this regard, for instance, the World Bank provides the results of a survey conducted in seven countries in Latin America, Africa, and the Middle East. It concludes that people are more likely to participate in rebel groups and gangs because of unemployment and idleness, mostly indicating the economic motivation behind the participation of would-be rebels (The World Bank Group, 2011, p. 80). More pertinently, Vestby (2019) conducts a survey analysis with the Afrobarometer data to understand whether natural shocks in agricultural economies, such as droughts, are likely to increase rebel participation by increasing motivation at the individual level. He concludes that droughts are more likely to cause adverse impacts on living conditions in agrarian economies, and thereby affected people are more inclined to participate in rebel groups for illicit gains unless governments provide relief programs to people exposed to environmental damages. Although these studies indicate the individual motivation behind participation, it is important to highlight that recruitment activities are more likely to occur when states are less capable of repressing the rebellion (see

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indicates how droughts can interact with conflicts and cause the loss of livelihoods in agriculturally based economies, leading to catastrophic famines and humanitarian crises where states intentionally use them as a political tool (e.g., Sudan and Ethiopia) or are insufficient to alleviate the adverse effects of droughts without extensive international aid and support.

Collier (2000a, 2000b), Collier et al. (2008), Fearon and Laitin (2003), Collier and Hoeffler (1998, 2004), Olson (2002)). Persistent droughts, in this regard, may cause public support and recruitment for rebellion by reducing state revenues for territorial control and social services.

Based on the above explanations, it can be expected that in an ongoing civil war hit by a drought, people are more likely to participate in rebel groups for economic benefits through criminal activities such as pillaging, plundering, looting, trafficking, resource exploitation, *et cetera* (Collier, 2000a, 2000b; Collier & Hoeffler, 1998). Given the income that rebel groups provide from such illegal activities and the increasing number of people joining rebel groups for such economic incentives, rebel leaders are less likely to exit the war by signing a peace agreement with governments in the early stages. Under these conditions, rebel leaders can sustain their recruitment activities to continue fighting for military victory or better terms of an agreement in the future as long as the drought endures. On the other hand, given their temporarily decreased capacity due to drought-induced revenue shortages in their agrarian economies, governments are more likely to continue fighting to obtain a more advantageous position against rebel groups in the future once droughts end or by getting foreign aid. As a result, in countries having agricultural economies, droughts can lead to two outcomes impacting civil war dynamics: (i) drought-induced sustainable recruitment activities make rebel leaders/groups more likely to continue fighting for military victory or better terms of an agreement in the future; and (ii) drought-induced low state capacity makes governments inclined to continue fighting for a better outcome in the future. Thereby, such changes in the strategic calculations of warring parties affect the outcomes as well as the durations of civil wars.

Another critical moderator variable I want to emphasize is the discriminatory/exclusionary state policies of drought-stricken countries grappling with civil wars (McLauchlin, 2018; Montalvo & Reynal-Querol, 2010; Wucherpfennig et al., 2012). According to this, climate change-induced environmental problems, such as slow-onset droughts, are more likely to cause prolonged civil wars if at least one of the warring parties experiences economic marginalization and/or political exclusion by governments. Given that many people's livelihoods depend on agriculture in the developing world, such as Sub-Saharan Africa, discriminatory/exclusionary state policies or "horizontal inequalities" can increase participation in rebel groups in times of environmental catastrophes since excluded/marginalized groups are less likely to have other non-violent means to improve their situation. Therefore, the interaction of discriminatory/exclusionary state policies and persistent droughts can contribute to the continuation of conflicts (Cederman et al., 2011; Cederman et al., 2013; Fjelde & Uexkull, 2012; Stewart, 2008). The persistent drought periods in the 1970s and 1980s in the Niger Delta of Mali, for instance, exacerbated the land use conflicts between farmers and herders due to the agricultural modernization-induced pastoral marginalization implemented by successive governments. More importantly, government officials were reluctant to resolve such communal conflicts between the *Jowros* (herders) and the *Rimaybé* (farmers) since the perpetuation of conflicts was causing the accumulation of wealth through rent-seeking and corruption at the expense of farmers and herders (Benjaminsen & Ba, 2009).

In this regard, I argue that changes in the balance of power caused by droughts may affect warring parties' strategic calculations by exacerbating the existing security dilemma among social groups (Lake & Rothchild, 1996). Generally, in countries with

diverse social groups, the distribution of resources is generally not fair among social groups. With the impact of exclusionary state policies, ruling elites from the ethnic majority have most of the available resources compared to ethnic minorities in many cases. However, the main concern here is not whether the ruling elites come from the ethnic majority but whether they distribute resources on an ethnic basis. By using state power to make most of the resources available to the disposal of their ethnic base, the ruling elites create a security dilemma among ethnic groups that civil wars hit by droughts would exacerbate. As in Darfur, ruling elites generally escalate the security dilemma among social groups by arming the supported social groups and not allowing the excluded social groups to tap into scarce natural resources, such as arable land and water. Under such circumstances, many excluded ethnic groups continue fighting for better peace terms or military victories in which they have better living conditions in the future. Therefore, discriminatory state policies against specific social groups can also affect the outcome and duration of a civil war by affecting the strategic calculation of warring parties. While an ethnic group that owns most of the resources aims to achieve a military victory quickly, the excluded groups tend to continue the war, hoping for better peace terms or military victory in the future. Similarly, if marginalized social groups are reintegrated into political processes, one can expect civil wars to last shorter and result in a peace settlement.

The Darfur genocide in Sudan is a well-known illustration of the above arguments. Darfur is home to many tribes, but the central split is between black Africans who make a living through sedentary agriculture and Arabs, who are nomadic herders. Although many point out such a distinction between black Africans and Arabs, this distinction is far from straightforward due to years of cultural exchanges and

intermarriages. Being an Arab indicates cultural identity since every Sudanese is technically African, and all Darfurians are Muslim. Given this background, environmental problems, such as dry seasons, exacerbated the tensions between black Africans and Arabs in Darfur due to resource scarcity over water and arable lands. Particularly in the 1980s and 1990s, Sudan experienced several persistent drought periods, leading to water insecurity and land disputes between farmers and nomadic herders in Darfur. In the 1980s, instead of providing aid and basic social services to the affected sedentary black Africans, Khartoum supported and armed Arab tribes and militias, such as the *Janjaweed*, in Darfur to prevent the southern rebels from increasing their influence in the region by agitating drought-induced social and economic problems. In turn, black Africans organized their self-defense groups, namely the *Sudan Liberation Movement* (SLM) and the *Justice and Equality Movement* (JEM), and started a rebellion lasting from 2003 to 2020, ending with a peace agreement. Furthermore, the President of Sudan at that time, Omar al-Bashir, acknowledged that Khartoum intentionally supported and armed Arab tribes and militias against black Africans to eliminate the South's rebel recruitment in Darfur, thereby aiming to end the rebellion (Ekolo, 2010; Straus, 2005, pp. 126–127).[70]

A similar situation can also be observed in the ongoing Syrian civil war since 2011. Even though droughts were a long-term environmental problem in Syria, the *Ba'ath* regime also played a significant role in the adverse impacts of droughts via the

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[70] For more information on the genocidal acts against black Africans by the government-backed *Janjaweed* in Darfur and the international society's response to these developments, please see: Ekolo (2010). Darfur and the Genocide Debate. *African Journal of Conflict Resolution, 9*, 33-52.

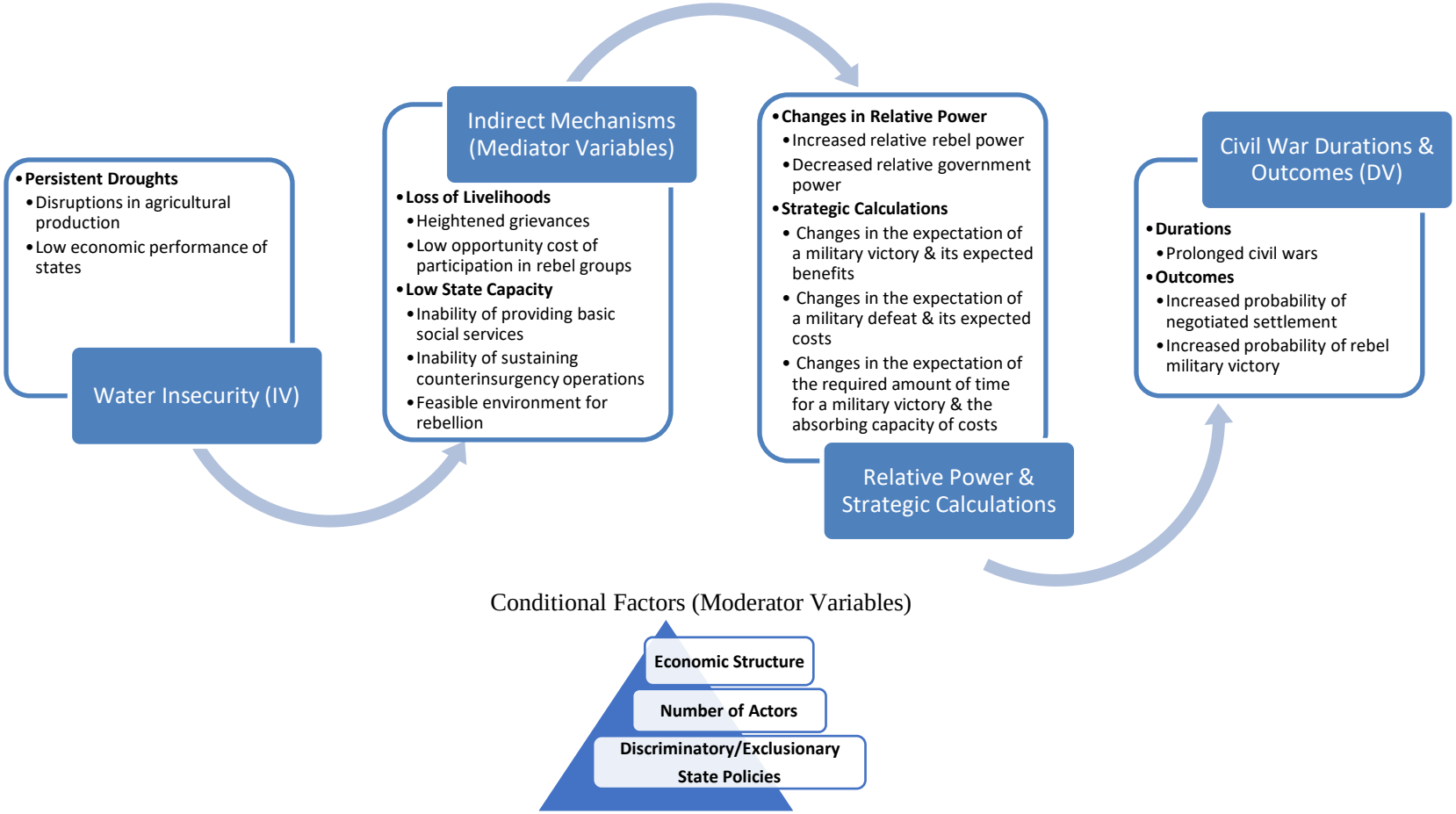

Figure 5: A Theoretical Model of Water Insecurity & Civil War Dynamics

intentional mismanagement of scarce water resources (Barnes, 2009; de Châtel, 2014; Femia & Werrell, 2013). For de Châtel (2014, p. 532):

> "it is important to consider the 2006-2010 drought and its possible role in triggering the 2011 uprising in the broader context of 50 years of resources mismanagement, rapid economic liberalization, the abrupt cancellation of state subsidies and the government's failure to address a humanitarian and environmental crisis that had been taking shape for more than a decade."

The northeastern parts of Syria (the *Jazira* region in Al-Hasakah province) are known as the country's storage for wheat. Yet, since the 2000s, water-intensive agricultural development projects led by the Ba'ath regime have undermined the already sinking groundwater reserves, thus contributing to the region's desertification. The drought between 2006 and 2010 was a final blow to the deteriorating situation in Syria (de Châtel, 2014, p. 522). The reason that the Ba'ath regime implements such water-intensive agricultural development projects in Syria's rural areas is mainly related to the social roots of the Ba'ath party and the *Asad family* (Barnes, 2009, p. 511). Put directly, the emphasis on agricultural development by the Ba'ath regime should be read from its links with people in rural areas, particularly *Alawites*, an ethnoreligious group of *Shia Islam*. According to this, the leading cadre of the Ba'ath Party comes from minorities from rural areas, particularly Alawites from *Latakia*. By implementing such water-intensive agricultural development programs in those regions, the Ba'ath regime aims to control, develop and mobilize its rural base in times of need. To control the rural base, the Ba'ath Party also established the *Peasants Unions*, and since the 1990s, 84% of all Syrian farmers have been active members of agricultural sector associations. The same

policies had been maintained from the military coup in 1963, led by the notables of the Ba'ath Party, to the death of Hafez Assad in 2000. The younger son of Hafez Assad and the incumbent of Syria, Bashar Assad, has also sustained such agricultural policies with minor changes, undermining the economic situation of non-Alawites, primarily *Sunni Arabs* (Barnes, 2009, pp. 521–522).

The last moderator variable I want to underline is the number of non-state actors in civil wars and peace processes. As is examined in detail in Chapter 2 (e.g., Cunningham (2006), Pearlman (2009, 2011, 2012), Pearlman and Cunningham (2012), Stedman (1997, 2003)), the competition among actors to be the decisive power in war processes is more likely to cause prolonged civil wars. Peace processes are likely to create "spoilers" or "veto players" who consider peace agreements unbeneficial for their goals (Cunningham, 2006; Stedman, 1997). By sabotaging ongoing peace processes, dissidents aim to reflect their preferences and interests in the emerging post-conflict environment. In other words, opponent groups aim to undermine peace talks since the continuation of fighting can be more advantageous for themselves in a way that they can voice their demands in the post-conflict environment by showing their military might in an ongoing war. In this regard, non-state actors struggle for dominance in peace processes in order to inject their demands into peace agreements and/or show their audiences which group is the legitimate actor in representing their communities. More precisely, given that rebel groups and their factions always search for a more advantageous position for their cause, civil wars in which multiple rebel groups and factions compete simultaneously with each other and with the government motivate the spoiling behavior of actors in peace processes (Pearlman, 2009, 2011, 2012; Pearlman & Cunningham, 2012). In brief, one can claim that the more actors struggle for

dominance in peace processes, the more likely that civil war persists since the number of “spoilers” or “veto players” in peace processes sheds light on how divergent preferences and interests warring parties have for the post-conflict environment.

The case of the Democratic Republic of the Congo (DRC) is an instance in which several external actors intervene in an ongoing civil war, and various rebel groups and factions participate in a common front against authoritarian rulers, namely Mobutu Sese Seko and Laurent-Désiré Kabila (Cunningham, 2006, pp. 877–878; Wilson, 2007). Just in the first phase of the Congolese civil war (1996-1997), for instance, the common front against the Mobutu regime called the *Alliance of Democratic Forces for the Liberation of Congo-Zaire* (AFDL) included four distinctive rebel fractions. In addition, there were four more rebel groups led by different actors and represented by various social groups. Although those rebel groups had trust issues within and between themselves, their resentment against the years-long oppressive and corrupt Mobutu regime united them against the common enemy. Mobutu’s insistence on solving the rebellion with military means made rebel groups think that reaching a peace agreement with the Mobutu regime was impossible. Therefore, the AFDL responded militarily to strengthen their hands against the Mobutu regime. By achieving military success on the battleground, the leader of the AFDL, Laurent-Désiré Kabila, tried to strengthen his power despite calls for an inclusive and united opposition against the Mobutu regime. Although he promised a democratic and prosperous Congo respectful of human rights, he immediately started orchestrating an authoritarian regime around his personality once he became a new president after a coup. In mid1998, Kabila ordered the dismissal of his former external supporters’ military advisers -Uganda and Rwanda. From 1998 to his assassination by his bodyguard in 2001, however, his actions led to forming of five new

rebel groups supported by Uganda and Rwanda against his rule, such as the *Rally for Congolese Democracy* (RCD), which splintered into several fractions over time. During his tenure, Kabila aimed to use the fractionalization of opposition groups within and between themselves to maintain his power, in addition to external support from Zimbabwe, Angola, Namibia, and Chad. Moreover, he used the national sentiment to garner public support by underlining the external support for violent and non-violent opposition groups (Wilson, 2007, 292-296, 302-305). In brief, as Stedman (1997, 2003), Pearlman (2009, 2011, 2012), Cunningham (2006), and Pearlman and Cunningham (2012) point out, in the first and second phases of the Congolese Civil War, the mistrust between rebel groups, the competition for leadership among factions, and the external interventions altered the strategic calculations of the warring parties regarding the war outcome and duration. As a result, the Congo experienced a prolonged civil war ending with a peace settlement in 2002.

Another instance is the Palestinian national movement, in which several actors have competed to attain the leading role in the struggle against the establishment of a Jewish state in Palestine since 1936. The Israeli-Palestinian conflict is one of the most prolonged violent conflicts in the contemporary world, with still no end in sight. Although there are multiple factors leading to such an outcome, one of them, without a doubt, is related to the organizational dimension of actors. During the 1970s, for instance, the *Palestine Liberation Organization* (PLO) was in the leading position in the West Bank and Gaza Strip in the struggle of Palestinians against the Israeli occupation and in achieving the goal of an independent state for Palestinians. With the help of the PLO's cohesive organizational structure, Palestinians launched the *First Intifada*, a "symbolic defiance" against the Israeli occupation and human rights violations in the

1980s. Although there were some individual acts of violence, these were limited in number and were not adopted by the PLO as a national strategy. Despite containing four main factions and thus some differences between them, the PLO was able to build strong leadership under the *United Leadership of the Uprising* (UNLU) and mobilize Palestinians through various preexisting social networks. It is worth noting that *Hamas* did not join the UNLU as a strategy to build and maintain its distinct organizational identity. Once it was understood that diplomatic initiatives would not produce the desired outcome under the increased Israeli repression, different voices began to emerge within the UNLU, in addition to Hamas. Thus, Palestinian actions that started as peaceful protests in the First Intifada turned into a protracted armed conflict in the following decades, particularly after the failure of the Oslo process that started in 1993 and the *Second Intifada* in 2000. In brief, compared to the First Intifada, the Second Intifada was a prolonged armed struggle against Israel in which the *Palestinian National Authority* (PA), led by Yasser Arafat, was not able to control the increasing number of veto players/spoilers, mainly due to the fragmentation of political power among various factions and groups. Therefore, such fragmentation paved the way for a prolonged conflict in which external actors intervened in the internal competition of the Palestinian national movement through funding (Pearlman, 2009, pp. 86–105, 2012, pp. 31–41).[71]

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[71] In civil war literature, although some argue that violence against civilians is mainly related to "ancient hatreds" between social groups (e.g., Kaplan (2000)), others highlight the organizational (e.g., Staniland (2012), Humphreys and Weinstein (2008), Weinstein (2005)) and instrumentalist (e.g., Wood (2014), Balcells (2011), Kalyvas (2006)) dimensions of such rebel groups' violent acts against civilians. Even though Pearlman (2009, 2011, 2012) mainly examines the impact of organizational structure on actors'/movements' choice of protest (violent or non-violent) in struggles for self-determination through the Palestine national movement, it is worth noting that many civil war scholars utilize a similar perspective in explaining why rebel groups attack civilians in civil wars (e.g., Staniland (2012), Humphreys and Weinstein (2008), Weinstein (2005)). For a review article on the theme of violence

In short, the theoretical model I proposed above underlines how water insecurity impacts civil war durations and outcomes in *indirect* and *conditional* ways. According to this model, civil war outcomes depend on *warring parties' strategic calculations* about whether to continue or exit the war. To some extent, the outcome of civil wars or the decision of warring parties indicates the duration of civil wars since *civil war outcomes are interconnected with civil war durations*. In this regard, water insecurity affects civil war durations and outcomes in two ways: (i) *by undermining people's livelihoods* and (ii) *by decreasing the state's capacity*. Heightened grievances, the low opportunity cost of participation, the low state capacity-induced feasible environment for rebellion, and thereby drought-induced changes in relative power force warring parties to change their strategic calculations about continuing or ending the war. In order for these two drought-induced mechanisms to affect civil war dynamics, I argue that three conditional factors play a central role: (i) *an agriculture-based economic structure*, (ii) *the number of non-state actors*, and (iii) *discriminatory/exclusionary state policies*. While an agriculture-based economic structure makes countries experiencing civil war more vulnerable to drought conditions, drought-induced resource scarcities make the unequal resource distribution among social groups more visible and thus worsen the existing security dilemma among them. Furthermore, given the various preferences and interests of warring parties in civil wars, ending civil wars becomes much more arduous in a short time since actors undermine peace processes for their parochial interests. As a result, these three conditional factors affect the cost-benefit analysis of the warring parties and, thus, the outcome and duration of civil wars.

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against civilians in civil wars, please see: Valentino (2014). Why We Kill: The Political Science of Political Violence against Civilians. *Annual Review of Political Science*, *17*(1), 89-103.

3.2 Implications & Hypotheses

As elaborated in the *Introduction*, this dissertation pursues a mixed-method strategy in which both large-N analysis and a comparative case study will be used to examine the validity of my theoretical model. First, a large-N analysis will be conducted to examine whether my proposed theoretical model has external validity across civil war cases. Based on the theoretical model elaborated above, in this sub-section, I will show my hypotheses regarding how water insecurity proxied by droughts can lead to varying civil war durations and outcomes. Then, the following three chapters will compare three separate cases from Africa in order to understand whether the proposed causal mechanisms provide internally validated evidence regarding how droughts can cause varying civil war durations and outcomes. It is important to note that this chapter will mainly focus on the impact of moderator variables on the water insecurity-civil war dynamics nexus in order to understand how the interaction between droughts and the aforementioned conditional factors impacts civil war dynamics. The following three chapters will examine whether the proposed mediator variables or indirect causal mechanisms are in play in the water insecurity-civil war dynamics nexus.

First of all, rather than suggesting a direct connection between persistent droughts and civil war dynamics, I propose indirect causal mechanisms while acknowledging the salience of the drought-affected regions' social, economic, and political structures. I argue that the economic structure of a state, the number of non-state actors in war, and discriminatory/exclusionary state policies are the conditional factors in which drought-affected people are motivated to use violence to redress their social and economic grievances. Under such circumstances, when people experience the adverse effects of severe and sustained drought periods for a long time, they may decide to migrate, rather than wait it out, from the affected rural regions to urban areas where

they can find other economic activities (Hendrix & Glaser, 2007) or they may resort to violence in order to overcome their social and economic problems by participating in rebel groups (Vestby, 2019). Instead of migratory responses, my theoretical model mainly focuses on the violent reactions of drought-affected people.

Based on the arguments above, I propose that persistent droughts are likely to cause prolonged civil wars in which loss of livelihoods and low state capacity play mediating roles. Put differently, persistent drought periods are likely to cause low agricultural production, leading to low state income to deal with social, economic, and security issues. It is important to note that the decline in agricultural production affects not only state capacity but also people's livelihoods in drought-hit regions. In contrast to national governments and average citizens, rebel groups are more insulated from these drought-induced adverse impacts since they can raid farms, food storage, and aid convoys for sustenance (Bagozzi et al., 2017; Koren & Bagozzi, 2016, 2017; Shearer, 2000)[72] or they can participate in criminal activities, such as international drug

[72] It is important to emphasize the associated costs of such rebel groups' illegal activities. For instance, raiding for sustenance can generate some costs, such as undermining the broader public support and recruitment for rebel groups. In particular, the predatory behaviors of rebel groups and their violent acts against civilians can undermine some of the foundations of rebel groups in civil wars, such as concealment from government forces in rural areas, preventing farmers or villagers from collaborating with government forces, or getting information about the military activities of government forces in some localities. All these predatory and criminal activities of rebel groups against civilians in civil wars for the continuation of fighting may lead to a decrease in public support and participation by questioning the legitimacy of rebel groups in the eyes of the public. Although some argue that violence against civilians is mainly related to "ancient hatreds" between social groups (e.g., Kaplan (2000), see also Valentino (2014)), others highlight the *organizational* (e.g., Staniland (2012), Humphreys and Weinstein (2008), Weinstein (2005)) and *instrumentalist* (e.g., Wood (2014), Balcells (2011), Kalyvas (2006)) dimensions of such rebel groups' violent acts in civil wars. According to this, the criminal activities of rebel groups, especially raiding, can be considered within the instrumentalist camp in which violence against civilians is seen as a rational strategy of rebel groups, such as the continuation of fighting by extracting resources from civilians. Therefore, drought-induced food insecurity can result in two opposing outcomes: While food insecurity may increase participation in rebel groups for food, shelter, and recruits, it may also lead to low participation due to insufficient resources for sustained mobilization, changing priorities of

trafficking and illegal arms trade (Duffield, 2000; Keen, 2000; Reno, 2000). Moreover, they can exploit natural resources, such as gems, oil, timber, et cetera, for their financial well-being (Ross, 2004; Soysa, 2000)[73].

Such drought-induced agricultural disruptions are likely to lead to the loss of people's livelihoods to make a living and to states' insufficient penetration of society in order to provide basic social services to the affected people. Additionally, drought-induced low agricultural production and the associated low state revenues are likely to result in a low military capacity and, thus, low territorial control of states to deal with rebel groups through counterinsurgency operations. Given that developing countries rely on agricultural taxes to transfer conventional military systems from the developed world (Klomp, 2022)[74], drought-induced agricultural disruptions can also be expected

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individual needs, and the food denial strategy of counterinsurgency operations. For more information regarding how drought-induced food insecurity can result in positive as well as negative effects on participation, please see: Hendrix and Brinkman (2013). Food Insecurity and Conflict Dynamics: Causal Linkages and Complex Feedbacks. *Stability: International Journal of Security & Development, 2*(2), 1-18.; see also Bagozzi et al. (2017). Droughts, Land Appropriation, and Rebel Violence in the Developing World. *The Journal of Politics, 79*(3), 1057-1072.

[73] It is important to note that some of the rebel groups' illegal activities are also water-dependent, such as mining gemstones. As Moody's Investors Service (2019) highlights, water has become a significant investment threat to a variety of business sectors. Given that most mining companies operate in the developing world that is most vulnerable to water availability and access, the mining industry, in particular, is one of the most vulnerable business sectors to water (in)security. Water does not only play a role in the mining sector as an *inbound risk* to the production process. Water is also an *outbound risk* factor for the mining industry due to the adverse effects of mining on limited groundwater resources (see Kunz (2020)). Therefore, drought-induced water insecurity can also undermine the illegal activities of rebel groups to continue the war, particularly extracting natural resources through mining. For more information about the mining-water nexus, please see: Kunz (2020). Towards a Broadened View of Water Security in Mining Regions. *Water Security, 11*(2020), 10079.; Moody's Investors Service (2019). *Access to Water is an Increasing Challenge to Mining Companies across Regions*. (https://www.moodys.com/research/Moodys-Access-to-water-is-an-increasing-challenge-to-mining-PBC_1196530).

[74] According to Klomp (2022), many developing states are dependent on military systems imports from the developed world funded by taxes on agricultural production, mostly cash crops. Such a relationship gets stronger when developing states face security threats or lack strong democratic institutions. The reason agricultural taxes are generally used to transfer military systems from the developed world can be

to undermine the military capacity and, thus, territorial control of states against internal and external threats. Under such circumstances, the possible outcome is prolonged civil wars as people tend to participate in rebel groups due to their heightened grievances and/or the financial resources they can derive from participating in rebel groups and the feasible environment for rebellion. Given the increasing human resources due to people's heightened grievances and economic motivations, rebel groups are more likely to maintain their fighting capacity against government forces until they reach a better civil war outcome; a rebel victory or a negotiated settlement. Governments, on the other hand, are less likely to gain the upper hand against rebel groups in a short time as they cannot have enough state capacity[75] to deal with rebel groups having public support. Therefore, the optimum solution for government forces is not to quit the war until conditions become more optimal for a decisive government victory or a better settlement. In brief, the best policy for both rebel groups and government forces is to

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explained by the following three factors: (i) agricultural taxes do not require a sophisticated administration and collection system compared to other types; (ii) agricultural taxes ensure both national and food security by expanding the military capacity of states and increasing food prices in the national market; and (iii) given the limited organizational capacity of the agricultural sector, agricultural taxes provide a way to transfer rents to politically favored social groups, such as military and industrial elites. For more information regarding what types of taxes (and why) are mainly used in transferring conventional military systems into the developing world, please see: Klomp (2022). Taxing Butter while Buying Guns. *Defence and Peace Economics*, *33*(2), 177-200.

[75] To re-clarify what I mean by the concept of state capacity in my theoretical model, I particularly underline two disaggregated features of state capacity: (i) the military capacity for territorial control against internal and external threats and (ii) the bureaucratic capacity -penetration of society- to provide basic social services to people. Although the concept of state capacity is multidimensional and complex to measure accurately, my theoretical model specifically highlights these two features of state capacity. Some of the other features or measures of state capacity include the extractive capacity and the institutional capacity (quality and trust). For more information regarding the concept of state capacity and how to measure it, please see: Fjelde and Soysa (2009). Coercion, Co-optation, or Cooperation? State Capacity and the Risk of Civil War, 1961-2004*. *Conflict Management and Peace Science*, *26*(1), 5-25.; Hendrix (2010). Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict. *Journal of Peace Research*, *47*(3), 273-285.; Koren and Sarbahi (2018). State Capacity, Insurgency, and Civil War: A Disaggregated Analysis. *International Studies Quarterly*, *62*(2), 274-288.

sustain their fighting until they reach a more favorable outcome; a military victory or a better settlement. As is evident, all these outcomes (a military victory or a better settlement in the future) lead us to experience protracted civil wars.

From the theoretical framework discussed above, I argue that such a situation could create two possible outcomes for rebel groups and governments. First, as the agriculture-based economy declines due to sustained drought periods, participation in rebel groups could provide alternative financial resources for people in times of drought-induced economic decline. Therefore, such a situation creates necessary grievance and greed-based incentives for people to be recruited by rebel groups, particularly in states where governments are weak in alleviating the destructive impacts of natural disasters through social services and relief programs (Vestby, 2019; Walch, 2018). Second, as the agriculture-based economy declines due to sustained drought periods, state revenues to implement effective counterinsurgency operations can be adversely impacted. Given that many developing countries rely on agricultural taxes to transfer conventional military systems from the developed world (Klomp, 2022), drought-induced agricultural disruptions can undermine the military capacity of states for territorial control against internal and external threats. Such a situation eventually provides a feasible environment for rebel groups to engage in protracted civil wars ending with a military victory or a better settlement (DeRouen Jr. & Sobek, 2004). In brief, I propose that persistent droughts are more likely to cause prolonged civil wars in a way that low agricultural production leads to decreasing state capacity to deal with insurgent groups while creating a low opportunity cost for people to be recruited by rebel groups. Such a change in the strategic calculations of warring parties leads us to expect protracted civil

wars, either ending with a negotiated settlement or a rebel military victory in the long run.

The first critical moderator variable of my theoretical model is the weight of the agricultural sector in states' economic structure. As might be expected, areas that will be first affected by persistent droughts are agricultural production and food prices, leading to heightened social and economic grievances and low state capacity due to low agriculture-based revenue. As explained in detail above, the combination of these two factors is likely to result in high participation in rebel groups, leading to prolonged civil wars.

> **Hypothesis 1(a)**: *The greater the proportion of agriculture in the economy, the greater the effect of droughts in prolonging civil wars*.
>
> **Hypothesis 1(b)**: *The greater the proportion of agriculture in the economy, the greater the effect of droughts in ending prolonged civil wars with either a negotiated settlement or a rebel military victory*.

Another important moderator variable of my theoretical model is the number of non-state actors in civil wars. In general, the competition among actors to be the decisive power in war and peace processes is more likely to cause prolonged civil wars (Pearlman, 2009, 2012; Stedman, 1997, 2003). In addition to actors' various preferences and interests, droughts can impact actors' military capabilities differently, thus changing their strategic calculations on whether to end or continue the war. Changes in the strategic calculations of warring parties are expected to undermine ongoing peace processes since actors with different military capabilities can have different preferences for the civil war outcome. Actors less affected by a persistent drought are likely to end

the war with a military victory in a short time, whereas actors who are more affected by the drought are likely to prolong the war for a better outcome in the future, such as a negotiated settlement. Thus, persistent droughts are likely to impact civil war durations and outcomes by undermining peace processes through changing military capabilities, particularly in civil wars that include many actors. In brief, the more actors struggle for dominance in war and peace processes, the more likely civil wars will last, ending with a rebel or government military victory. As the number of "veto players" sheds light on how divergent preferences, interests, and capabilities actors have, persistent droughts are expected to prolong civil wars by changing the strategic calculations of actors through military capabilities in such civil wars (Cunningham, 2006; Pearlman & Cunningham, 2012). Since civil wars involving many actors are less likely to result in a negotiated settlement, such drought-hit civil wars are expected to result in either a rebel or a government military victory.

Hypothesis 2(a): *In civil wars having multiple rebel groups, droughts are more likely to prolong civil wars*.

Hypothesis 2(b): *In civil wars having multiple rebel groups, droughts are more likely to end prolonged civil wars with either a government or a rebel military victory*.

Last, droughts could exacerbate the existing social, economic, and political grievances by making economic inequality and unjust distribution of resources more salient, particularly in local and national settings. That is to say, the effects of droughts could be felt severely, particularly in places where people are discriminated against due

to their social identities and in repressive political regimes where people do not have any non-violent options to raise their voices. Under such circumstances, one of the options for the affected people is to take arms against discriminatory/exclusionary and non-responsive states (Couttenier & Soubeyran, 2014; Hendrix & Glaser, 2007; Maystadt & Ecker, 2014). The impacts of persistent droughts on discriminatory/exclusionary state policies and horizontal inequalities are more noticeable in oppressive regimes having diverse ethnic identities, as in the case of Sudan (Ekolo, 2010; Straus, 2005) and Syria (Barnes, 2009; de Châtel, 2014; Femia & Werrell, 2013) mentioned above. In such states, resources are distributed mainly by considering social groups' identities. Put more clearly, social groups favored by the state (e.g., *Alawites* in Syria; Arabs and the *Janjaweed* in Darfur) get most of the available resources at the expense of other social groups. Although such a(n) discriminatory/exclusionary distribution of resources creates heightened grievances in excluded or discriminated social groups, oppressive regimes lacking non-violent means to voice people's grievances freely exacerbate their situation further. Under these conditions, many people from excluded or discriminated social groups join rebel groups to improve their living conditions. Nevertheless, it is important to note that taking up arms against governments is not people's first option; instead, people are more inclined to choose other non-violent means until they realize that non-violent options are not available or non-responsive. Once realizing the lack or ineffectiveness of non-violent means, people are more inclined to resort to violence against government forces, government-aligned militias, or social groups when necessary motivations and conditions exist (Hendrix & Glaser, 2007, p. 699).

In a nutshell, people are inclined to rebel against governments if they are discriminatory/exclusionary and non-responsive. Given discriminatory/exclusive state policies against particular social groups, people can participate in rebel groups due to low opportunity costs. Furthermore, rebel leaders are less likely to be a part of peace negotiations because of the possibility that governments can exploit settlements in the future. Such a security dilemma makes rebel groups less likely to be a part of bargaining processes since the lack of mutual assurances between warring parties makes them avoid committing to peace agreements (Lake & Rothchild, 1996; Walter, 1997, 2009). Therefore, rebel groups tend to sustain fighting efforts until they reach a better outcome: a military victory.

Hypothesis 3(a.1.): *In states having politically exclusive policies against particular social groups, droughts are more likely to prolong civil wars*.

Hypothesis 3(a.2.): *The greater the economic discrimination against particular social groups in states, the greater the effect of droughts in prolonging civil wars.*

Hypothesis 3(b.1.): *In states having politically exclusive policies against particular social groups, droughts are more likely to end prolonged civil wars with either a government or rebel military victory*.

Hypothesis 3(b.2.): *The greater the economic discrimination against particular social groups in states, the greater the effect of droughts in ending prolonged civil wars with either a government or rebel military victory*.

3.3 Method, Variables & Data

As mentioned before, analyzing civil war dynamics requires examining the interaction between dyadic actors, namely governments and rebel groups. According to

this, warring parties' balance of power and strategic calculations decide whether the war continues or ends with either a military victory or a negotiated settlement. In other words, the protagonists, be they governments or rebels, decide whether to end or continue fighting by considering the following factors in their cost-benefit calculations: (i) the likelihood of military victory, (ii) anticipated payoffs from being victorious, (iii) the strength of absorbing the costs, (iv) the required time to be militarily victorious, (v) the expectation of a military defeat, and (vi) the expected costs of a military defeat. Such decisions, on the other hand, indicate whether or not the war took a prolonged time to end since the duration and outcome of a civil war are interconnected. In general, civil wars taking a long time to be terminated tend to disproportionately end in negotiated settlements rather than outright victories, whereas short civil wars tend to have higher rates of military, especially government, victories (see Brandt et al. (2008), DeRouen Jr. and Sobek (2004), Mason et al. (1999), Mason and Fett (1996)).

Accordingly, it can be argued that the termination of a civil war can occur in four different ways: (i) the war can transform into a low-level conflict, or it can end by (ii) a government military victory, (iii) a rebel military victory or (iv) a negotiated settlement (Mason et al., 1999, p. 241). In cases where warring parties cannot defeat each other militarily or reach a negotiated settlement through a bargaining process, the war is expected to continue. Civil wars ending with a negotiated settlement are more likely to result from prolonged wars since the warring parties can fully understand over time that they cannot defeat each other militarily and that the best outcome is to preserve the *status quo* by signing agreements. Civil wars ending with either a government or rebel military victory, on the other hand, may take a much shorter time since the warring parties may want to conclude the war decisively before the costs of warfighting efforts

exceed their absorbing capacity. Government military victories, in this regard, are the most common civil war outcome since the superior organizational and military capabilities of government forces can defeat rebel groups in a relatively shorter period. As Mao theorizes in *On Guerilla Warfare* (Freedman, 2013, pp. 183–187)[76], on the other hand, rebel military victories may require extended periods to attract public support and construct the necessary organizational and military capacity of rebel groups to defeat superior government forces.

In cases like the above, where "each subject can experience only one of [the] different types of events over follow-up," the probability of such events occurring is called *competing risks* (Kleinbaum & Klein, 2012, p. 430). In other words, competing risks occur when there are at least two possible outcomes that a subject can experience. Therefore, the *competing risks survival model* aims to evaluate "corresponding survival probability of any one of the possible events allowing for the competing risks of the other ways to fail" (Kleinbaum & Klein, 2012, p. 431). Civil war dynamics, in this regard, can be an appropriate theme for the competing risks survival model since any civil war can end with only one of more than two outcomes -a negotiated settlement, a rebel victory, or a government victory. Additionally, given the link between civil war outcomes and their respective durations, the competing risks survival model can also measure the impacts of variables on the duration of civil wars ending with one of the

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[76] Mao Zedong considers guerilla warfare as three successive stages, from generating revolutionary cadres from peasants in rural areas to waging low-intensity war/terrorist tactics for psychological and political aims to creating a regular military force for conventional warfare. Although General Giap follows Mao's guerilla warfare doctrine in the Vietnamese War against South Vietnam, he does not consider these three stages gradually progressing. Instead, from Giap's perspective, three stages can be used according to circumstances in guerilla warfare. For more information regarding the historical development of guerilla warfare and counterinsurgency, and different perspectives on them, please see: Freedman (2013). *Strategy: A History*. Oxford University Press. (Chapter 14: Guerilla Warfare).

aforementioned outcomes.[77] In brief, as Brandt et al. (2008, p. 417) underline, the competing risks survival model is "the only way that we can model differences in the duration of civil wars that are a function of the three different types of civil war outcomes." In the same direction, I utilize a competing risks survival model to evaluate how water insecurity proxied by droughts can simultaneously impact the durations and outcomes of civil wars. By doing that, I aim to examine how water insecurity impacts civil war dynamics.

The relevant dataset for the large-N analysis is taken from a component of Cunningham et al. (2009) which is based on the *Uppsala/PRIO Armed Conflict Dataset* (UCDP). This component is supported by the *Non-State Actors in Armed Conflict Dataset* (NSA), which provides information regarding the non-state actors involved in intrastate conflicts. The UCDP has detailed information about all the durations and outcomes of civil wars from 1946 to 2021, which resulted in at least 25 battle deaths in a year over incompatibilities concerning the control of the central government and the status of a specific territory.[78] The NSA dataset, on the other hand, provides "information on attributes of rebel groups for 404 separate conflict dyads" included in the UCDP, allowing us to examine "rebel group strength in terms of its ability to target government forces, the ability of rebel groups to resist repression, and the availability

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[77] For more information regarding the competing risks survival model and how to conduct it, please see: Austin et al. (2016). Introduction to the Analysis of Survival Data in the Presence of Competing Risks. *Circulation, 133*(6), 601-609.; Wolbers et al. (2014). Competing Risks Analyses: Objectives and Approaches. *European Heart Journal, 35*(42), 2936-2941.; Cleves et al. (2010). *An Introduction to Survival Analysis Using STATA* (Third Edition). A STATA Press Publication. (Chapter 17: Competing Risks).

[78] For the most recent information about the Uppsala Conflict Data Program (UCDP), changes in organized violence in recent years, the current situation of the Syrian Civil War, and the increasing role of armed drones in existing wars, please see: Pettersson et al. (2021). Organized Violence 1989-2020, With a Special Emphasis on Syria. *Journal of Peace Research, 58*(4), 809-825.; Davies et al. (2022). Organized Violence 1989-2021 and Drone Warfare. *Journal of Peace Research, 59*(4), 593-610.

of nonviolent alternatives" (Cunningham et al., 2009, pp. 579–580).[79] By combining each dataset, Cunningham et al. (2009) create a suitable dataset for the goal of this dissertation since they (i) measure the relative strength of government and rebel groups on a dyadic basis, (ii) combine this information with dyadic durations of armed conflicts, and (iii) code separately each type of termination of armed conflicts. Therefore, I will conduct a large-N analysis on the impact of water insecurity on civil war dynamics by using such a global sample of civil wars that occurred between 1946 and 2003.[80]

Based on this dataset, this dissertation focuses on the duration and outcomes of civil wars from a dyadic relationship between governments and rebel groups by utilizing a competing risks survival model to estimate the risk of termination over time. In this regard, the dependent variable includes two components: (i) *civil war outcome* (a negotiated settlement, a government victory, and a rebel victory) and (ii) *civil war duration* (the number of days until any civil war outcome occurs in a calendar year). First of all, civil wars are coded according to their pooled outcome (*civil war ended*).

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[79] Given that quantitative studies on civil wars are mainly based on country-year datasets, many studies miss how varying actors and their motives, aims, organizations, and tactics play a decisive role in civil wars. Although the civil war literature tries to address the role of non-state actors by utilizing the *Minorities at Risk* (MAR) Dataset, this dataset primarily focuses on ethnic groups in conflicts. Therefore, Cunningham et al. (2013) provide a new dataset including all dyadic relationships beyond ethnic groups in a conflict, called the *Non-State Actors in Armed Conflict Dataset* (NSA). For more information regarding these datasets, please see: (http://www.mar.umd.edu/); Cunningham et al. (2013). Non-State Actors in Civil Wars: A New Dataset. *Conflict Management and Peace Science, 30*(5), 516-531.

[80] It is important to note that the dataset of Cunningham et al. (2009) includes different types of organized violence. Since the goal of this dissertation is to examine the impact of water insecurity on civil war dynamics, types of organized violence other than civil wars are dropped from the relevant dataset. In this regard, the number of observations in the dataset decreased from 2425 to 1161 in which only civil wars are included as a type of organized violence in a dyadic form (N=1161). To get detailed information about how Cunningham et al. (2009) code each civil war outcome as well as other variables, please see their codebook: Cunningham et al. (2012). *Codebook for the Non-State Actor Data*. (http://ksgleditsch.com/eacd.html).

The years are coded as "0" if that civil war continues in that year, "1" if that civil war ended with either a negotiated settlement, a government victory, or a rebel victory, and "2" otherwise. For the variable of *civil war ended*, continuing civil wars (*0*) are *right-censored*, meaning that civil wars that have not ended with any of the aforementioned civil war outcomes by the end of that year are censored in the competing risks survival analysis. Regarding the competing risks of the civil war outcome (*civil war outcome*), the years are coded as "0" if that civil war continues in that year, "1" if that civil war ends with a negotiated settlement, "2" if it ends with a government victory, "3" if it ends with a rebel victory, "4" if that civil war transforms into a low-intensity conflict, and "5" otherwise (e.g., rebel groups gather to form a new group, the end of anti-colonial wars, *et cetera*). For the variable of *civil war outcome*, civil wars coded as "0," "4," or "5" are *right-censored*, meaning that civil wars that have not experienced any of the civil war outcomes (*1*, *2*, *3*) by the end of that year are censored in the competing risks survival analysis.[81] On the other hand, the civil war duration is automatically calculated by the competing risks survival model using the difference between the start and end dates of civil wars until one of the possible outcomes above (*1-5*) occurs in that year.

As a proxy of water insecurity, *droughts* are considered to be the independent variable. To measure droughts, scholars generally look at two main factors: (i) deviations in rainfall and (ii) temperature anomalies. For this dissertation, I employ the

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[81] For more information about the concept of censoring, its different kinds (*right*, *left* and *interval*) and the types of right censoring (*Type I*, *Type II*, and *Type III*) in the competing risks survival analysis, please see: Kleinbaum and Klein (2012). *Survival Analysis: A Self-Learning Text* (Third edition). Statistics for Biology and Health. Springer. (Chapter 1); Cleves et al. (2010). *An Introduction to Survival Analysis Using STATA* (Third Edition). A STATA Press Publication. (Chapter 4).

related data from the *International Disaster Database* (EM-DAT)[82] in order to measure the two features of droughts: (i) whether or not a drought overlaps with a civil war in each year for every country in the dataset (*drought overlap*) and (ii) the proportion of days in a given calendar year under drought for each country after excluding any portions where the civil war was not ongoing (*drought ratio*). By doing this, I aim to find information on whether droughts overlap with civil wars and the proportion of days in a given calendar year in which civil wars and droughts overlap for each country. In brief, compared to rainfall deviations and temperature anomalies, this dataset provides more comprehensive measures of long-term droughts, alongside their magnitudes, dating back to the 1900s.[83]

As mentioned before, the causal relationship between water insecurity and civil war dynamics likely operates through indirect mechanisms and conditional factors. Regarding indirect mechanisms, I advance two causal mechanisms, namely, (i) *loss of livelihoods* and (ii) *low state capacity*, as mediator variables of my proposed theoretical model. It is important to note that these two mediator variables are not going to be explicitly considered in the large-N analysis here. Rather, these mediating relationships

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[82] For more information regarding the International Disaster Database (EM-DAT), please see: Guha-Sapir et al. (2022). *EM-DAT: The CRED/OFDA International Disaster Database, version 2022-10-14*. Université Catholique de Louvain. (www.emdat.be). For another drought-related dataset, in which evapotranspiration due to overheat is also included, please see: Vicente-Serrano, S. and National Center for Atmospheric Research Staff (Eds.). (2023). *The Climate Data Guide: Standardized Precipitation Evapotranspiration Index (SPEI), version 2023-09-04*. National Center for Atmospheric Research (NCAR) Climate Data Guide. (https://climatedataguide.ucar.edu/climate-data/standardized-precipitation-evapotranspiration-index-spei).

[83] Although the EM-DAT database includes several natural disasters (8478), droughts are recorded under the category of climatological natural disasters (711) along with wildfires, glacial lake outbursts, *et cetera*. It is important to note that only droughts are maintained in the merged dataset in order to evaluate the impact of droughts on civil war dynamics. Therefore, the number of observations are decreased to 466 in which only droughts are taken into account (N=466). Given that determining droughts' start and end dates is difficult due to their slow-onset nature, the onset and end date of droughts are calculated as the first and last day of the related month, respectively, unless clearly stated in the dataset.

Table 1: Variables, Operationalization & Data Source

Variable	Operationalization	Primary Data Source
Civil War Ended (pooled)	*(0) Continuing* *(1) Negotiated Settlement/Rebel Victory/Government Victory* *(2) Low Activity/Other*	*Cunningham et al. (2009)*
Civil War Outcome (competing risks)	*(0) Continuing* *(1) Negotiated Settlement* *(2) Government Victory* *(3) Rebel Victory* *(4) Low Activity* *(5) Otherwise*	*Cunningham et al. (2009)*
Civil War Duration	*The number of days in a given calendar year for each country until the civil war is terminated by one of the competing risks*	*Cunningham et al. (2009)*
Drought Overlap	*(1) If the drought overlaps with the civil war in that year* *(0) Otherwise*	*International Disaster Database (v. 2022-10-04)*
Drought Ratio	*The proportion of days in which civil war and drought overlap in a given calendar year for each country*	*International Disaster Database (v. 2022-10-04)*
Economic Structure	*The proportion of the country's agricultural output in its GDP*	*Quality of Government Standard Dataset (v. 2021)*
Number of Non-State Actors	*(1) Multiple active dyads/non-state actors* *(0) Single active dyad/non-state actor*	*Cunningham et al. (2009)*
Organizational Capacity	*(1) If the rebel group has a moderate/high central command structure* *(0) If the rebel group has no /unclear/low central command structure*	*Cunningham et al. (2009)*
Political Exclusion	*(1) If the rebelled social group has been excluded from political processes* *(0) Otherwise*	*Cederman et al. (2011)*
Economic Discrimination	*The proportion of discriminated groups' GDP per capita to the average national GDP per capita; "0" indicates that the discriminated group has the exact amount of the average national GDP per capita*	*Cederman et al. (2011)*
Mobilization Capacity	*(1) If the rebel group has a moderate/high mobilization capacity relative to the government* *(0) If the rebel group has no/unclear/low mobilization capacity relative to the government*	*Cunningham et al. (2009)*
Ln GDP per capita	*Gross domestic product (GDP) per capita in US $; fixed 1996 prices; natural log-transformed for skewness*	*Cunningham et al. (2009)*
Ln Population	*The state's population size; natural log-transformed for skewness*	*Cunningham et al. (2009)*
Regime Type	*(1) If the country has a democratic regime* *(0) Otherwise*	*Cunningham et al. (2009)*
Political Representation	*(1) If the rebel group has an explicit/formal link to a political party* *(0) If the rebel group has no/unclear/alleged/acknowledged links to a political party*	*Cunningham et al. (2009)*
Ethnic Conflict	*(1) If the conflict is ethnically based* *(0) Otherwise*	*Cunningham et al. (2009)*
Ethno-Linguistic Fractionalization	*The probability that two randomly drawn individuals from a population belong to different ethno-linguistic groups*	*Cunningham et al. (2009)*
Natural Resources	*(1) If the area where the rebel group operates has hydrocarbons/gems/both of them* *(0) If the area where the rebel group operates has neither hydrocarbons nor gems*	*Buhaug et al. (2009)*
External Support	*(1) If the rebel group is externally supported* *(0) If the rebel group is not externally supported*	*Cunningham et al. (2009)*
Region	*(1) If the civil war occurs in Latin America/Middle East & North Africa/Sub-Saharan Africa* *(0) Otherwise*	*World Bank Country Categorization by Region*
Time Frame	*(1) If the conflict occurs during the Cold War (1945-1989)* *(0) Otherwise*	*Cunningham et al. (2009)*

will be evaluated in the qualitative analysis presented in the second part of my dissertation. Therefore, these two variables are going to be incorporated into the large-N analysis as control variables, given that many scholars have used them in their past analyses of civil war dynamics (e.g., Fearon and Laitin (2003), Collier et al. (2008), Collier et al. (2004), DeRouen Jr. and Sobek (2004)).[84]

Based on the above explanation, my theoretical model takes into account three moderator variables, possibly affecting the nexus between water insecurity and civil war dynamics. These moderator variables are (i) *economic structure*, (ii) *the number of non-state actors*, and (iii) *discriminatory/exclusive state policies*. First, to measure the weight of the agricultural sector in the economy (*economic structure*), I derive the related data from the *Quality of Government Standard Dataset* (QoG)[85], providing detailed data on the weight of agricultural production in GDP rates for over 180 countries since 1960. Second, to measure the number of non-state actors (*number of non-state actors*), I derive the related data from Cunningham et al. (2009), in which they examine the number of active rebel groups in the same conflict. The number of non-state actors is coded as "1" if that civil war has multiple non-state actors in that year and "0" otherwise. Additionally, as a measurement of the warring parties' potential splinter groups (*organizational capacity*), I examine whether rebel groups have a strong

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[84] To evaluate whether the results are still robust without considering the mentioned mediator variables, I omit the variables of *mobilizational capacity* and *ln GDP per capita* as controls from the models. Since including them as control variables sets a higher bar for significant effects, it would be useful to show that my findings still hold when omitting these theoretical mediators from the models completely. To see the models without these two theoretical mediator variables, please see *Appendix F: Tables F-34 – F-45*.

[85] For more information regarding the Quality of Government Standard Dataset (QoG), please see: Teorell et al. (2022). *The Quality of Government Dataset, version Jan22*. University of Gothenburg: The Quality of Government Institute. (https://www.gu.se/en/quality-government/qog-data/data-downloads/standard-dataset). The relevant variable within the QoG dataset comes from: World Bank (2021a). *World Development Indicators*. The World Bank. (https://databank.worldbank.org/source/world-development-indicators).

organizational structure by coding them according to their central command structure. Accordingly, rebel groups are coded as "1" if they have a moderate or high central command structure and "0" otherwise. Last, for the variable measuring the discriminatory/exclusive state policies against particular social groups, I use the data of Cederman et al. (2011), investigating political and economic inequalities among social groups of a country between 1946-2005. It is important to note that I examine the disaggregated features of horizontal inequalities by differentiating *political exclusion* and *economic discrimination* against particular social groups. If the social base of a rebel group is excluded from political processes, that country is coded as "1" and "0" otherwise. For economic discrimination, social groups are examined according to their GDP *per capita* proportional to the national average. If the social base of a rebel group has the exact amount of the national average GDP *per capita*, it is coded as "0," and the deviations from the national average are coded symmetrically (>0).[86]

Regarding control variables, I control for eleven variables to address the possibility of confounding variables in my assessment of the conditional effects of droughts on civil war dynamics. These control variables are the mobilization capacity of rebel groups relative to governments, GDP *per capita*, population size, regime type, the political representation of rebel groups, ethnic conflict, ethno-linguistic fractionalization, natural resources, external support, region, and time frame. To

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[86] If the social base of rebel groups relies on more than one social group (e.g., the National Council of Chadian Recovery (CNR), the Tigray People's Liberation Front (TPLF)), that rebel group is coded according to the average economic inequality score of all the discriminated social groups. Furthermore, in such cases, the rebel group is coded politically excluded (as "1") in that country if one of the social groups is excluded from the political processes. In determining the social bases of rebel groups, the relevant information is mainly taken from the UCDP website (https://ucdp.uu.se/) and complemented by open sources if needed.

measure rebel groups' relative *mobilization capacity*, I take the related data from Cunningham et al. (2009). If a rebel group has a moderate or high mobilization capacity relative to the government, it is coded as "1" and "0" otherwise. To measure the state capacity as a control variable in my theoretical model, I utilize the *gross domestic product (GDP) per capita* as a rough proxy for state capacity and employ the related data from Cunningham et al. (2009). It is important to note that GDP *per capita* is not a perfect control measure for state capacity. Nevertheless, it is still the best measure available for this dissertation project, given that I have a small sample size (N=1161) and need variables that go back somewhat far into time (1946). Furthermore, despite these limitations, GDP *per capita* allows me to imperfectly account for variation in state capacity without losing a large share of my observations due to listwise deletion, just like some past studies that have used it as such (e.g., Fearon and Laitin (2003), Collier et al. (2004), Collier et al. (2008)).[87] Given the impact of population size on civil wars in addition to income level (see Fearon and Laitin (2003), Collier et al. (2008), Collier et al. (2004), DeRouen Jr. and Sobek (2004)), I include *population size* as a control variable and derive the related data from Cunningham et al. (2009). For both GDP *per capita* and population size, I take the natural log of the variables in order to decrease the effect of extreme values/skewness.

As mentioned in the literature review (*Chapter 2*), whether people have peaceful mechanisms to voice their grievances can impact their motivation to participate in rebel groups and, thus, civil war dynamics. Therefore, *regime type* and whether rebel groups

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[87] For detailed information about why GDP *per capita* is problematic in measuring state capacity and into which direction civil war literature developed to measure state capacity appropriately, please see: Hendrix (2010). Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict. *Journal of Peace Research, 47*(3), 273-285.

are associated with a political party (*political representation*) are considered into account as control variables. Ethnically based civil wars can also impact civil war dynamics since *ethnic conflicts* are inclined to experience intense bloodshed and atrocities, thus perpetuating civil wars due to their unique endogenous mechanisms (see Sambanis (2001), Kaufman (2006), Kaufmann (1996)). In addition to ethnic conflicts, I also control whether *ethno-linguistic fractionalization* can have any impact on the nexus between water insecurity and civil war duration and outcomes, similar to the past studies (e.g., Collier et al. (2004), Elbadawi and Sambanis (2000), Fearon (2003, 2004), Montalvo and Reynal-Querol (2010)). In brief, the ethno-linguistic fractionalization index (EFL) examines whether two randomly drawn individuals from a population belong to different ethnolinguistic groups and assumes that different ethno-linguistic groups can have different preferences/objectives, thus generating a conflict of interests between them (see Fearon (2003)). It is evident that the ELF index does not directly control for ethnic conflicts. Nevertheless, given that the civil war cases coded as ethnic conflict are so sparse in the dataset of Cunningham et al. (2009) -just 8% of the observations- thus leading to convergence problems, adding the ELF index to the analysis is necessary to ameliorate potential problems in the proposed model. Therefore, the relevant data is derived from the dataset of Cunningham et al. (2009), relying on the ELF index of Fearon (2003), in which they examine the ethno-linguistic fractionalization of 160 countries.[88]

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[88] Despite the fact that many civil war scholars use Fearon's ELF index in their analysis, it is important to note that it is not an original dataset. Rather, the Fearon's ELF index is an amelioration of the past studies' problems in examining the ethnic fractionalization of countries (e.g., The Soviet Union's *Atlas Narodov Mira* Dataset, Ted Gurr's *Minorities at Risk* Dataset Project, and Alesina et al. (2002)). For more information regarding the original sources the ELF index relies on and how it is generated, please see: Fearon (2003). Ethnic and Cultural Diversity by Country. *Journal of Economic Growth, 8*(2), 195-222.

Table 2: Summary Statistics for the Variables

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Civil War Ended	1,161	0.807	0.511	0	2
Civil War Outcome	1,161	0.408	1.091	0	5
Civil War Duration	1,161	322.8	98.23	1	366
Drought Overlap	1,161	0.148	0.355	0	1
Drought Ratio	1,161	0.117	0.302	0	1
Economic Structure	726	28.00	16.71	1.280	79.04
Number of Non-State Actors	1,161	0.621	0.485	0	1
Organizational Capacity	1,161	0.745	0.436	0	1
Political Exclusion	1,046	0.682	0.466	0	1
Economic Discrimination	973	0.0435	0.132	0	1.258
Mobilization Capacity	1,161	0.441	0.497	0	1
Ln GDP per capita	1,161	7.518	0.966	5.597	9.799
Ln Population	1,161	9.517	1.023	6.014	12.82
Regime Type	1,161	0.202	0.402	0	1
Political Representation	1,161	0.351	0.477	0	1
Ethnic Conflict	1,161	0.0810	0.273	0	1
Ethno-Linguistic Fractionalization	1,161	0.610	0.228	0.0395	0.933
Natural Resources	1,129	0.715	0.452	0	1
External Support	1,065	0.594	0.491	0	1
Region	1,161	0.749	0.434	0	1
Time Frame	1,161	0.639	0.480	0	1

Whether a country has any exploitable *natural resources* can impact civil war dynamics since economic motivations can make people participate in rebel groups for financial well-being (see Ross (2004), Keen (2000), Soysa (2000), Fearon (2004), Conrad et al. (2019)).[89] *External support* in favor of rebel groups and/or governments can also impact the balance of power and, thus, civil war dynamics (see Elbadawi and Sambanis (2000), Regan (2002)). Last, regional conflict complexes (*region*) and *time frame* can also impact civil war dynamics. Given that some regions of the world, such as West Africa, Southern Central Asia, the Andean region, the Middle East, the Great Lakes region, and the Balkans, have developed unique regional illegal networks in which people and goods can cross borders with ease, the emergence of a civil war within

[89] It is important to note that Buhaug et al. (2009) examine the impact of hydrocarbon resources, gems, and drug cultivations on civil war durations. However, I focus mainly on two natural resources, namely hydrocarbon resources and gems, since drug cultivation may also be impacted by droughts. Given their resistance to droughts, I argue that these two natural resources (hydrocarbons and gems) are more likely to provide economic incentives to both would-be rebels and rebel organizations in times of drought-induced economic hardships.

these regions can affect the dynamics of civil wars (see Armstrong and Rubin (2002), Studdard (2004)).[90] Moreover, the emergence of civil war during or after the Cold War can impact the civil war dynamics due to external support/intervention and the impact of globalization (see Hironaka (2005), Posen (2017), Duffield (2000, 2001)). More information about how these control variables and other dependent and independent variables are operationalized and from which sources they are primarily derived can be found in *Table 1* above. Similarly, the descriptive statistics for each variable used in the competing risks survival analysis can be found in *Table 2*.

3.4 Empirical Analysis

I present the main results for the nexus between water insecurity and civil war duration and outcomes in *Tables 3-7*. *Table 3* presents a *Base Model* of the impact of *drought ratio* on *civil war duration and outcomes*. The ensuing tables (*Tables 4-7*) append the Base Model with an interaction term of drought ratio in order to test the hypotheses elaborated above. More pertinently, *Table 4* presents *Model I*, in which I add an interaction term (*drought ratio x economic structure*) to the Base Model in order to test *Hypotheses 1(a) and 1(b)*. *Table 5* presents *Model II*, in which an interaction term (*drought ratio x number of non-state actors*) is added to the Base Model in order to test *Hypotheses 2(a) and 2(b)*. *Table 6* presents *Model III*, in which an interaction term (*drought ratio x political exclusion*) is added to the Base Model in order to test *Hypotheses 3(a.1) and 3(b.1)*. Last, *Table 7* presents *Model IV*, in which I add an interaction term (*drought ratio x economic discrimination*) to the Base Model in order

[90] For more information regarding the regional categorization of countries by the World Bank, please see: (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups).

to test *Hypotheses 3(a.2) and 3(b.2)*. For each model, the time to each civil war outcome is analyzed sequentially by providing *sub-hazard ratios* (SHR). Accordingly, the tables (*Tables 3-7*) report my covariates' effects on each civil war outcome for the aforementioned models. Sub-hazard ratios bigger than 1 (*SHR>1*) are associated with increases in the incidence of that civil war outcome (implying shorter civil war durations), and sub-hazard ratios smaller than 1 (*SHR<1*) are associated with decreases in the incidence of that civil war outcome (implying prolonging the duration of civil war) (Austin et al., 2016; Austin & Fine, 2017). The relevant coefficient estimates for each model are also provided in the Appendices (see *Appendix A: Tables A-1 – A-5)*.

Despite the fact that the Kaplan-Meier method (KM) and Cox proportional-hazards model (Cox) are widely used for competing risks survival analysis in political science, it is important to note that I employ the *Fine-Gray subdistribution-hazards model* (FG) for this dissertation project, which is more commonly used in health sciences (e.g., Lau et al. (2009), Cleves et al. (2010)). [91] Given that both the KM method *cumulative incidence functions* (CIFs) for *prognostic studies* (Austin et al., 2016; Austin & Fine, 2017; Fine & Gray, 1999; Latouche et al., 2013; Wolbers et al., 2014). Therefore, given the aim of this dissertation project, I argue that using the FG model is more advantageous. Based on this short background information, I evaluate the results below to test my hypotheses via the tables mentioned above and the relevant CIFs graphs.

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[91] Though more complicated, for an easy-to-understand explanation of what the competitive risks survival analysis is and how it can be applied, please see: Austin et al. (2016). Introduction to the Analysis of Survival Data in the Presence of Competing Risks. *Circulation, 133*(6), 601-609.; Austin and Fine (2017). Practical Recommendations for Reporting Fine-Gray Model Analyses for Competing Risk Data. *Statistics in Medicine, 36*(27), 4391-4400.

Table 3: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
(Base Model)
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	5.659**	7.445**	0.541	1.075
	(3.941)	(7.327)	(0.429)	(0.520)
Economic Structure	0.953*	0.827***	1.073	0.998
	(0.0273)	(0.0418)	(0.0517)	(0.0117)
Economic Discrimination	0.0370	2.394	28.70**	0.863
	(0.112)	(2.239)	(45.27)	(0.521)
Political Exclusion	7.110*	0.273	0.0964***	1.924**
	(7.318)	(0.269)	(0.0821)	(0.579)
Number of Non-State Actors	1.694	0.880	4.365**	0.716
	(1.080)	(0.697)	(3.132)	(0.225)
Organizational Capacity	1.147	7.995×10^{6}***	0.934	0.740
	(0.633)	(8.482×10^{6})	(0.878)	(0.195)
Mobilizational Capacity	0.664	1.247	1.823	0.736
	(0.546)	(1.126)	(1.674)	(0.258)
Political Representation	2.016	8.010**	7.779**	2.041***
	(1.378)	(8.139)	(6.707)	(0.562)
External Support	0.678	2.016	3.390	0.363***
	(0.410)	(1.486)	(4.275)	(0.110)
Natural Resources	12.52**	0.153**	0.104**	1.187
	(12.83)	(0.141)	(0.100)	(0.428)
Ethno-Linguistic Fractionalization	4.126	0.0189	0.696	0.115**
	(9.262)	(0.0646)	(3.245)	(0.110)
Regime Type	0.168	0.757	8.82×10^{-8}***	0.388
	(0.193)	(0.536)	(1.17×10^{-7})	(0.264)
Ln GDP *per capita*	0.825	0.142**	1.496	1.090
	(0.497)	(0.113)	(2.496)	(0.327)
Ln Population	1.204	0.489	0.640*	0.743**
	(0.463)	(0.242)	(0.146)	(0.108)
Time Frame	0.134***	54.59***	0.306	0.732
	(0.103)	(62.59)	(0.388)	(0.227)
Region	0.239	0.0531***	2.034	1.406
	(0.285)	(0.0426)	(2.050)	(0.807)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Turning to the *Base Model* (*Table 3*) above, although I do not find any statistically significant sub-hazard ratio of the *drought ratio* for the pooled outcome in which my primary event of interest is the sum of the negotiated settlement, government victory, or rebel victory against the other two competing events (*low activity* and *others*), I find that the *drought ratio* is associated with an increase in the incidence of both the negotiated settlement (*five-fold*) and government victory (*seven-fold*) and that both of them are statistically significant at 95% confidence level ($p<0.05$). This implies that when droughts get persistent during an ongoing civil war, they decrease the required time for warring parties to become a negotiated settlement or a government victory compared to other civil war outcomes. According to these results, *empirical evidence does not support one of my general expectations that persistent droughts are more likely to increase the probability of rebel military victories* (see *Figure 5*). *Instead, my other expectation that persistent droughts are more likely to increase the probability of negotiated settlements (but in a shorter time) is supported* ($p<0.05$; SHR>1; five-fold increase). It is important to note that the sub-hazard ratios in the tables do not tell us anything about the marginal effects of the drought ratio on the civil war outcomes at *different time points*. What they provide instead is information about the direction of the impact and its magnitude on civil war duration and outcome at *any point in time* while controlling for confounding variables and considering that other competing risks can also occur (see Austin et al. (2016), Austin and Fine (2017)). To get and evaluate marginal effects at different time points, I will provide separate graphs of cumulative incidence functions (CIFs) for each hypothesis (if necessary). In brief, separately analyzing each civil war outcome can provide more nuanced information about whether

droughts are associated with which civil war outcome – and their respective durations compared to the pooled version.[92]

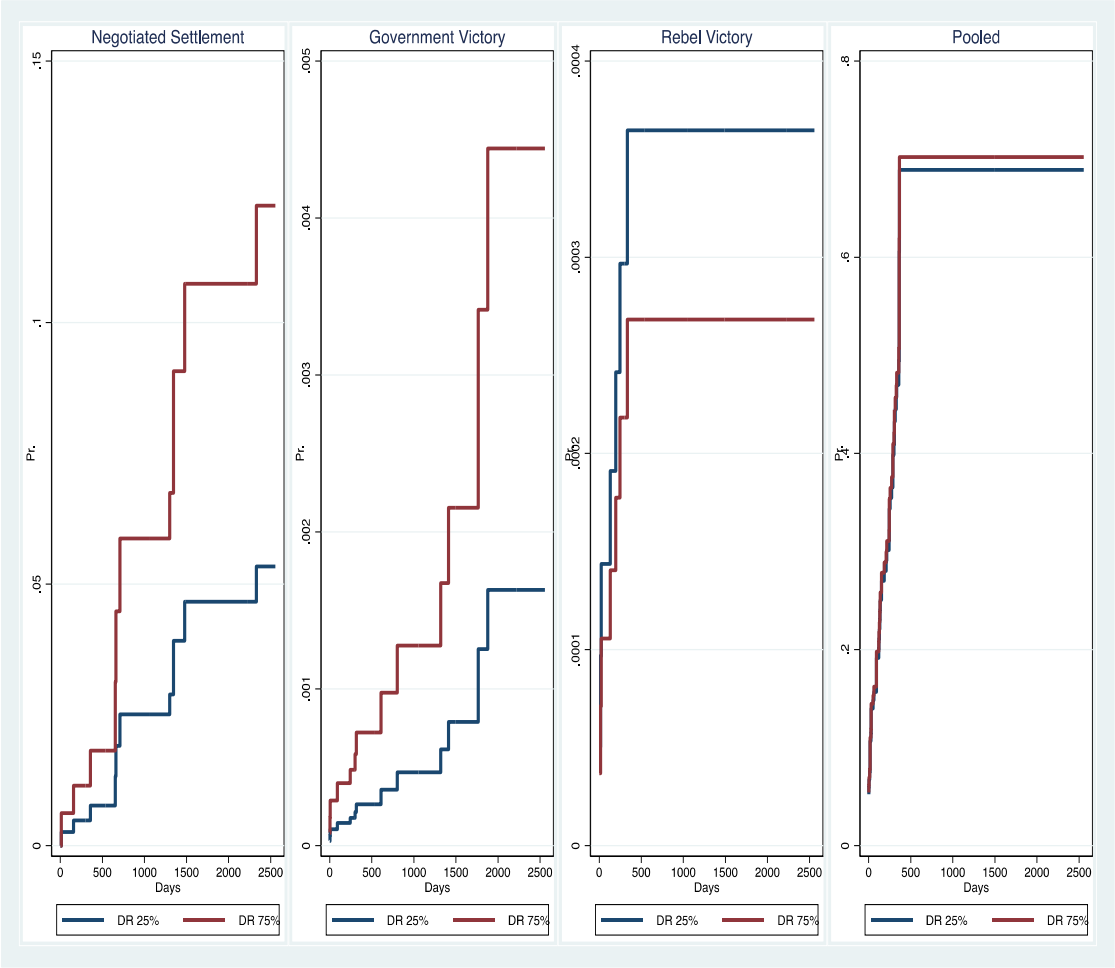

Figure 6: The Impact of Drought Ratio on Civil War Duration & Outcomes

[92] To overcome monotone likelihood issues, meaning that the independent variable nearly perfectly predicts the outcome, in the variables with extremely large or small coefficient estimates, I omit such control variables (*organizational capacity & regime type*) from the proposed models. By doing this, I verify that my results still hold even after omitting such offending variables. To see the models without such offending variables, please see *Appendix G: Tables G-46 – G-57*.

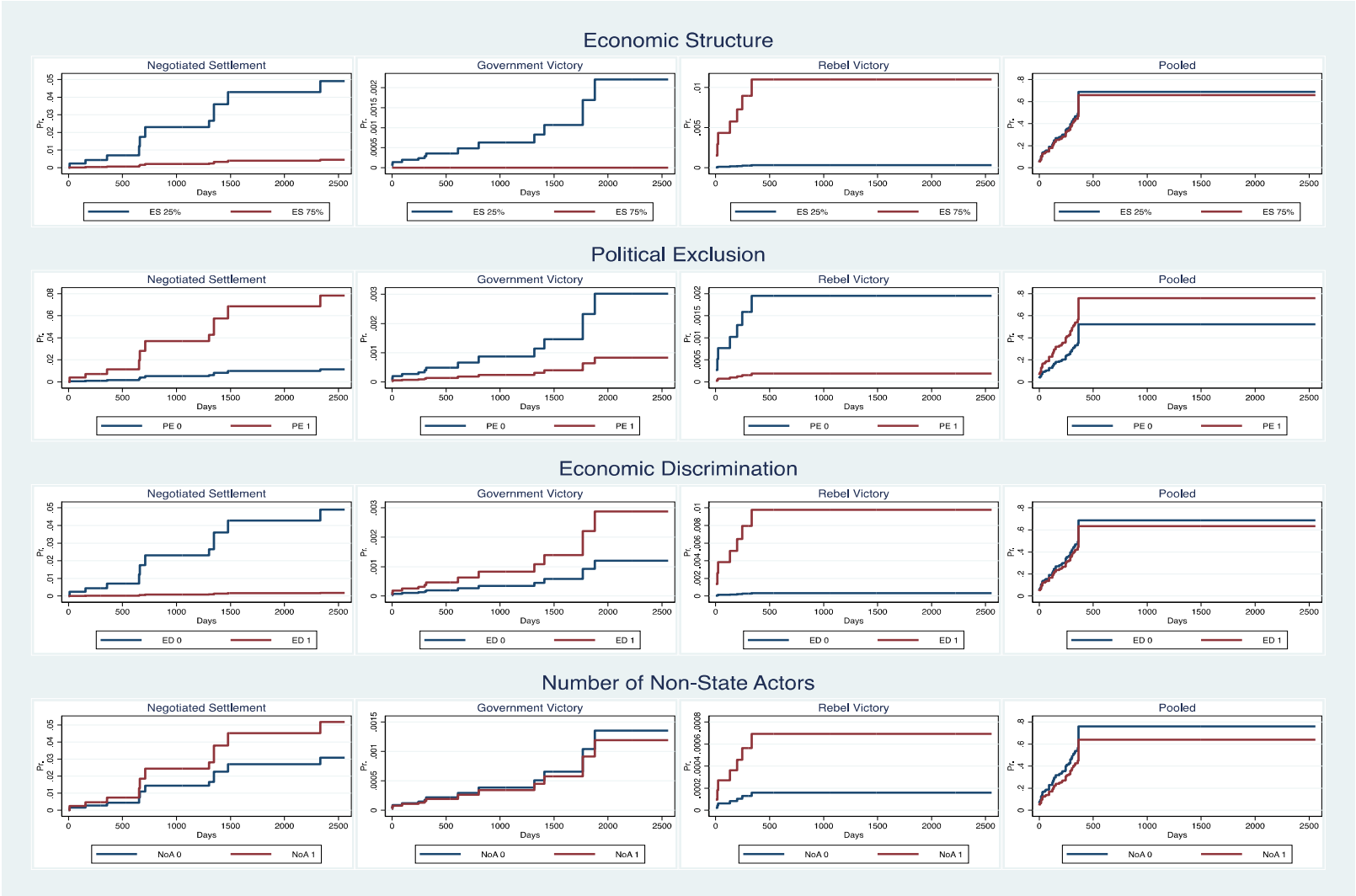

Figure 7: The Impact of Selected Variables of Interest on Civil War Duration & Outcomes

As seen in *Figure 6* above, an increase in the drought ratio is more likely to increase the incidence of negotiated settlements in a short time compared to government victories when all other confounding variables are controlled at their mean or median values. When the drought ratio increases from *25%* to *75%*, the probability that that civil war is likely to end with a negotiated settlement in almost four years (*1500 days*) increases from *4%* to *9%*. Moreover, the longer the civil war duration under drought, the more likely that a negotiated settlement would resolve the civil war. For instance, when the drought ratio increases from *25%* to *75%*, the probability that that civil war is likely to end with a negotiated settlement in almost seven years (*2500 days*) increases from *5%* to *11%*. However, the probability of the same civil war being terminated by a government victory during the same period is less than *0.04%*, even when the drought ratio becomes *75%*. Although the drought ratio is significantly associated with a sevenfold increase in the incidence of government victories at any point in time ($p<0.05$), it does not make any sense in the real world due to its unsubstantial marginal impact at different time points.

In contrast to the drought ratio, the proportion of agricultural production in GDP (*economic structure*) is associated with a decrease in the incidence of both negotiated settlements (-*5%*) and government victories (-*17%*). Both of them are statistically significant at 90% ($p<0.1$) and 99% ($p<0.01$) confidence levels, respectively. This implies that as the proportion of agricultural production in a country's GDP increases, civil wars are more likely to be ended by a negotiated settlement or a government victory in a long time compared to other civil war outcomes. In an almost four-year-long period (*1500 days*), civil wars are roughly *4%* more likely to end with a negotiated settlement when *25%* of the economic structure relies on agricultural production. When the

agricultural weight increases from *25%* to *75%*, the same civil wars are *0.05%* more likely to end with a negotiated settlement in the same time window. In the same period, however, the marginal effect of the economic structure on government victories is unsubstantial to be considered (see *Figure 7: Economic Structure* above).

On the other hand, *economic discrimination* against the social base of a rebel group is significantly associated with a *28-fold* increase in the incidence of rebel victories ($p<0.05$). This implies that as the economic discrimination against the social base of rebel groups increases, civil wars are more likely to be ended with a rebel victory in a short time. In almost four years (*1500 days*), civil wars are *0.2%* more likely to be terminated by a rebel victory if the social base of the rebel groups is economically discriminated against (see *Figure 7: Economic Discrimination*). *Political exclusion* against rebel groups is significantly associated with a *92%* increase in the incidence of the pooled outcome ($p<0.05$). According to this, political exclusion against rebel groups makes civil wars shorter to be ended with one of the civil war outcomes. When looking at the details, *political exclusion* is significantly associated with a *90%* decrease in the incidence of rebel victories ($p<0.01$) but significantly associated with a *seven-fold* increase in the incidence of negotiated settlements at the 90% confidence level ($p<0.1$). This means that compared to economic structure, political exclusion makes civil wars take longer to be ended with a rebel victory but makes them shorter to be terminated by a negotiated settlement. In an almost four-year-long period (*1500 days*), civil wars are roughly *70%* more likely to end with one of the civil war outcomes when the social base of rebel groups is excluded from political processes. More in detail, the same civil wars are more than *6%* more likely to end with a negotiated settlement but *0.01%* more likely to end with a rebel victory in the same time window (see *Figure 7: Political Exclusion*).

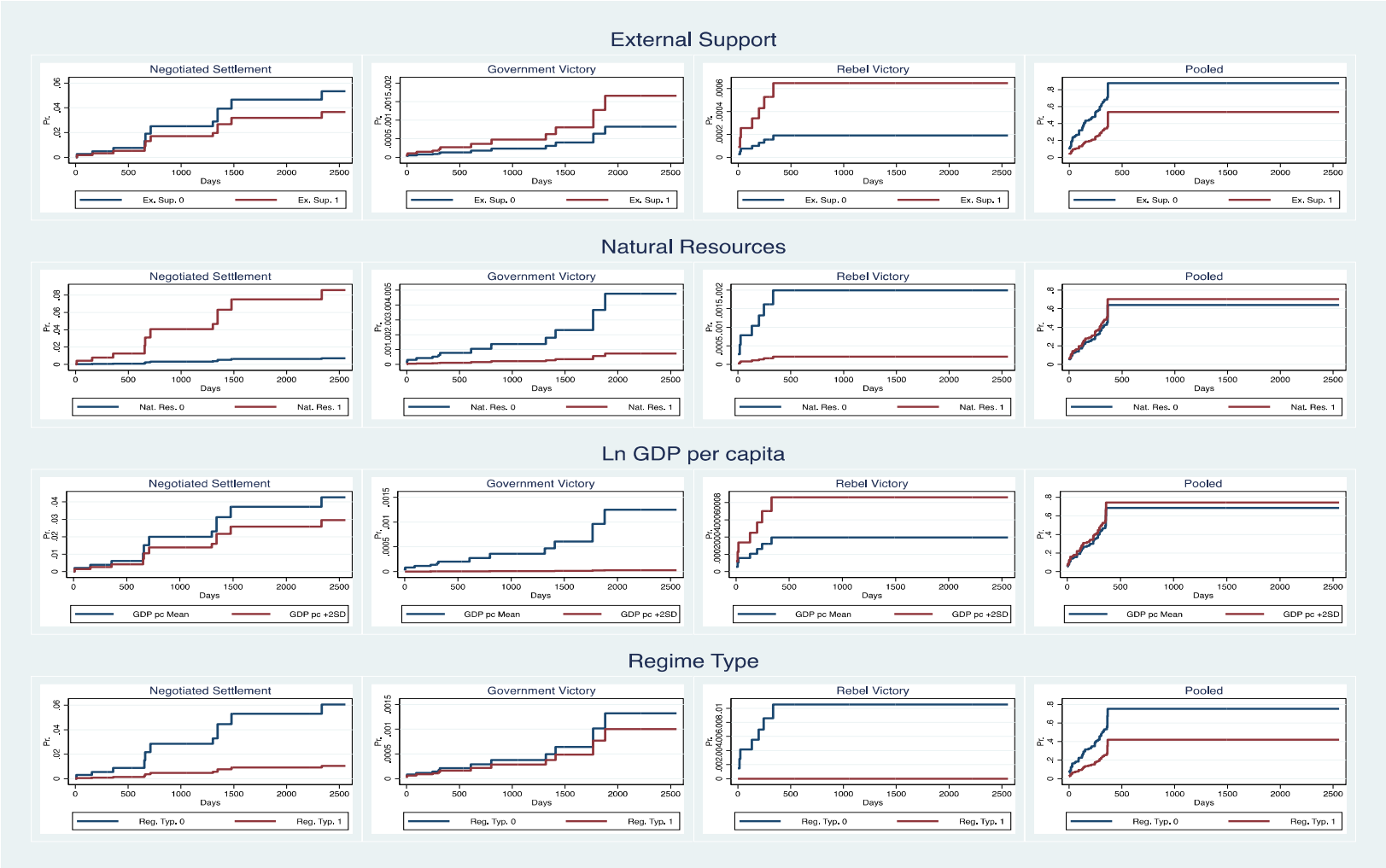

Figure 8: The Impact of Selected Control Variables on Civil War Duration & Outcomes

As one can expect, the sub-hazard ratio of the number of non-state actors is significantly associated with a four-fold increase in the incidence of rebel victories at the 95% confidence level ($p<0.05$). According to this, if a civil war has more than one active non-state actor, that civil war is more likely to be terminated by a rebel victory than a negotiated settlement and a government victory. Nevertheless, its marginal impact is unsubstantial when examined at specific time points (see *Figure 7: Number of Non-State Actors*). Another confounding variable, measuring the central command structure of rebel groups (*organizational capacity*) -thereby measuring, in part, the potential splinter groups within rebel groups, is significantly associated with an increase in the incidence of the government victory (*7.995×10^6-fold*) at the 99% confidence level ($p<0.01$). According to this, as long as rebel groups have a moderate or high central command structure, civil wars are much more likely to be ended with a government victory in a much shorter time. In a four-year-long period (*1500 days*), for instance, civil wars are more than *1%* more likely to end with a government victory compared to other outcomes, controlling for other confounding variables at their mean or median values.

As for the statistically significant control variables in the Base Model (see *Figure 8* above), *political representation* is significantly associated with a *two-fold* increase in the incidence of the pooled outcome ($p<0.01$), meaning that if a rebel group has an explicit or formal link to a political party, that civil war is more likely to be ended with one of the civil war outcomes in a shorter time. In particular, political representation is significantly associated with an increase in the incidence of both government (*eight-fold*) and rebel victories (*seven-fold*) at 95% confidence levels ($p<0.05$). Accordingly, political representation shortens the duration of civil wars to be ended with either a government or a rebel victory. *External support*, on the other hand,

is significantly associated with a *63%* decrease in the incidence of the pooled outcome ($p<0.01$) but not with a specific civil war outcome, even at the 90% confidence level. Therefore, one can claim that if an external actor supports a rebel group in an ongoing civil war, that civil war is less likely to be ended in a short duration. Turning to *natural resources*, one can claim that if areas where rebel groups operate have hydrocarbons, gems, or both of them, civil wars are significantly associated with a *twelve-fold* increase in the incidence of negotiated settlements ($p<0.05$), but with a decrease in the incidence of both government victories (-*84%*) and rebel victories (-*90%*) at the 95% confidence level ($p<0.05$). This implies that the existence of natural resources in rebel operating areas shortens the duration of civil wars for negotiated settlements but lengthens the duration of civil wars for both government and rebel victories.

In the initial phase of the competing risks survival analysis, I aimed to control for *ethnic conflict* due to its potential impact on the nexus between water insecurity and civil war dynamics. Given the limited variation of ethnic conflict in the merged dataset -only *8%* of the civil wars are coded as ethnic conflicts by Cunningham et al. (2009), my model experienced a convergence problem. Therefore, I have to drop the confounding variable of ethnic conflict in order to make my model simpler to overcome the issue. Although the *ethno-linguistic fractionalization* (ELF) index does not directly control for ethnic conflict, I add the ELF index to the analysis in order to get at least some information about the impact of ethnicity on civil war dynamics. I also reexamine the potential impact of ethnic conflicts in the *Robustness Section* below after dropping ethnic conflict cases from the merged dataset (N=1067). By doing that, I am able to assess whether the confounding variable of ethnic conflict has any impact on my model. Turning back to the ELF index in *Table 3* above, it is significantly associated with an

Table 4: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
(Model I: Drought Ratio x Economic Structure)
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	31.29*	186,458**	0.000144**	1.091
	(58.33)	(991,996)	(0.000594)	(2.012)
Economic Structure	0.967	0.812*	1.049	0.998
	(0.0251)	(0.0936)	(0.0395)	(0.0125)
Drought Ratio x Economic Structure	0.938	0.637**	1.224**	1.000
	(0.0697)	(0.143)	(0.101)	(0.0432)
Economic Discrimination	0.0305	2.875	64.03**	0.862
	(0.0920)	(2.652)	(106.6)	(0.528)
Political Exclusion	6.267*	0.240*	0.0980**	1.925**
	(6.344)	(0.201)	(0.115)	(0.579)
Number of Non-State Actors	1.947	1.252	3.378	0.716
	(1.395)	(1.193)	(2.505)	(0.225)
Organizational Capacity	1.118	3.700×10^{7}***	0.672	0.740
	(0.679)	(8.665×10^{7})	(0.550)	(0.195)
Mobilizational Capacity	0.604	1.023	2.709	0.736
	(0.527)	(0.866)	(3.338)	(0.254)
Political Representation	1.765	22.21**	12.70***	2.042**
	(1.101)	(28.18)	(11.00)	(0.593)
External Support	0.826	3.699	2.926	0.362***
	(0.626)	(4.962)	(2.764)	(0.112)
Natural Resources	13.85**	0.397	0.124**	1.187
	(14.93)	(0.284)	(0.127)	(0.428)
Ethno-Linguistic Fractionalization	2.965	0.0344	0.436	0.115**
	(6.593)	(0.122)	(1.787)	(0.120)
Regime Type	0.205	0.770	1.22×10^{-7}***	0.388
	(0.240)	(0.551)	(1.97×10^{-7})	(0.264)
Ln GDP *per capita*	0.733	0.217	1.300	1.090
	(0.490)	(0.203)	(1.822)	(0.324)
Ln Population	1.050	0.0922	0.504***	0.744*
	(0.480)	(0.141)	(0.103)	(0.114)
Time Frame	0.113***	1,554**	0.175	0.732
	(0.0874)	(5,206)	(0.208)	(0.227)
Region	0.263	0.00564**	3.005	1.408
	(0.331)	(0.0148)	(3.077)	(0.848)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

86% decrease in the incidence of the pooled outcome ($p<0.05$), meaning that if the probability that two randomly drawn individuals from a population belong to different ethno-linguistic groups increases, that civil war is less likely to be ended with one of the civil war outcomes in a shorter period. Nevertheless, the ELF index is not significantly associated with any particular civil war outcome, even at the 90% confidence level ($p<0.1$).

Regime type is significantly associated with a very small decrease in the incidence of rebel victories (almost *0%*; $p<0.01$). Accordingly, if a civil war-experiencing country has a democratic regime, that civil war is less likely to be terminated by a rebel victory in a shorter period compared to other civil war outcomes. Used as a proxy of state capacity in the model, the natural log of GDP *per capita* (*ln GDP per capita*), on the other hand, is significantly associated with an *86%* decrease in the incidence of government victories at the 95% confidence interval ($p<0.05$). This means that one unit increase in the ln GDP *per capita* makes civil wars less likely to be terminated with a government victory in a short period of time. The *population* of countries is also significantly associated with a *26%* decrease in the incidence of the pooled outcome ($p<0.05$); meaning that as the population of countries increases, the probability that civil wars end with one of the pooled outcomes (negotiated settlements, government victories, and rebel victories) requires much prolonged time. Furthermore, the population of countries is significantly associated with a *36%* decrease in the incidence of rebel victories ($p<0.1$), implying that any increase in the population makes civil wars prolonged to be terminated by a rebel victory. Turning to the last two significant control variables, one can claim that if civil wars occurred in the Cold War period (*time frame*), they were more likely to end with a government victory (*54-fold*;

p<0.01) but less likely to end with a negotiated settlement (-*87%*; *p*<0.01) in a shorter time. Furthermore, if civil wars take place in Latin America, Sub-Saharan Africa, or the Middle East and North Africa, they are less likely to end with a government victory in a short period than in other regions (-*95%*; *p*<0.01).

In *Table 4* above, *Model I* presents the sub-hazard ratios of my covariates in the Base Model along with an interaction term (*drought ratio x economic structure*) in order to test *Hypotheses 1(a)* and *1(b)*. As seen in the table, after adding the interaction term to the Base Model, most of my covariates stay the same in terms of the direction of impact and statistical significance, except the variables of drought ratio, economic structure, political exclusion, number of non-state actors, natural resources, and ln GDP *per capita*. The drought ratio, for instance, becomes significantly associated with a *31-fold* increase in the incidence of negotiated settlements (*p*<0.1) and a *186-fold* increase in the incidence of government victories (*p*<0.05) in a shorter period of time, which are higher than the sub-hazard ratios in the Base Model above. Furthermore, the drought ratio becomes significantly associated with an almost *100%* decrease in the incidence of rebel victories (*p*<0.05). On the other hand, the economic structure becomes insignificant for the incidence of negotiated settlements while significantly associated with a *19%* decrease in government victories (*p*<0.1). The interaction term of the *drought ratio* with the *economic structure* is significantly associated with a *36%* decrease in the incidence of government victories (p<0.05) but a 22% increase in the incidence of rebel victories (*p*<0.05). This implies that an increase in the drought ratio in agricultural-based countries makes civil war durations much longer to be terminated by a government victory but much shorter to be ended by a rebel victory. It is important to note that the interaction term is not significantly associated with both negotiated

settlements and the pooled outcome. Based on this empirical evidence, it becomes clear that *the greater the proportion of agriculture in the economy, the greater the effect of droughts in prolonging civil wars just for government victories* (SHR<1, p<0.05). Furthermore, *the greater the proportion of agriculture in the economy, the greater the effect of droughts in shortening civil wars for rebel victories* (SHR>1, p<0.05). Therefore, while I find partial empirical evidence that *an increase in the drought ratio in agricultural-based economies prolongs civil wars* (*Hypothesis 1(a)*: Supported), *this impact is limited to government victories, not to negotiated settlements and rebel victories* (*Hypothesis 1(b)*: Unsupported).

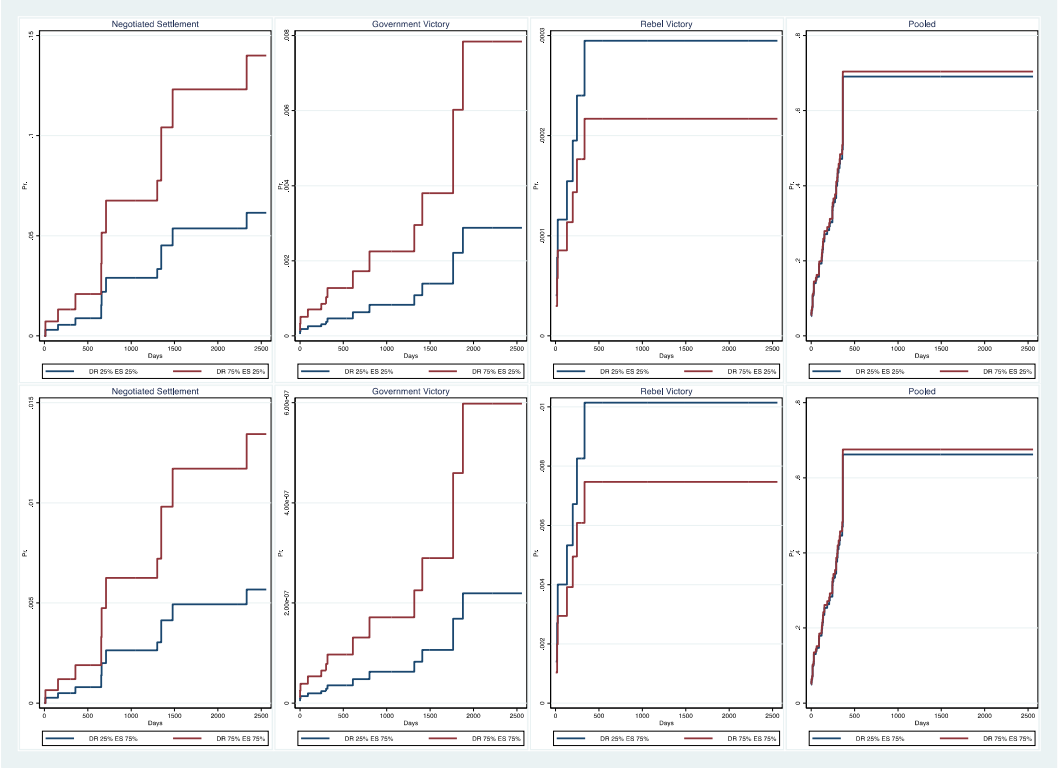

Figure 9: The Impact of Drought Ratio x Economic Structure on Civil War Duration & Outcomes

Turning to *Figure 9* above regarding the marginal effects of the interaction term at different time points, it becomes clear that in an almost four-year-long period (*1500 days*), if the proportion of agriculture in the economic structure increases from *25%* to *75%*, civil wars are less likely to end with a rebel victory but more likely to end with a government victory even when the drought ratio increases from *25%* to *75%*. Despite the statistically significant sub-hazard ratios of the interaction term for both government and rebel victories, their marginal impacts are unsubstantial (less than *1%*). Furthermore, even when we look at the marginal impacts in a much longer period (*2500 days*), the interaction term still does not substantially impact government and rebel victories and their respective durations.

In *Table 5* below, the *Model II* presents the sub-hazard ratios of my covariates in the Base Model along with an interaction term (*drought ratio x number of non-state actors*) in order to test *Hypotheses 2(a)* and *2(b)*. As evident in the table, after adding the interaction term to the Base Model, nearly all of my covariates stay the same in terms of the direction of impact and statistical significance, except the variable of drought ratio. Compared to the Base Model, the drought ratio becomes insignificant even at the 90% confidence level ($p<0.1$) for each civil war outcome after adding the interaction term. Moreover, the interaction term of the *drought ratio* with the *number of non-state actors* is significantly associated with a *100%* decrease in the incidence of government victories ($p<0.01$) and a *67%* decrease in the incidence of rebel victories ($p<0.05$). This implies that in civil wars having multiple rebel groups, an increase in the drought ratio significantly increases the duration of civil wars for the incidence of both government and rebel victories. Based on this significant empirical evidence, one can

Table 5: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
(Model II: Drought Ratio x Number of Non-State Actors)
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.494	1.527×10^{31}	5.796	1.898
	(3.325)	(0)	(8.858)	(1.771)
Economic Structure	0.952*	0.845***	1.101	0.999
	(0.0269)	(0.0472)	(0.0762)	(0.0120)
Economic Discrimination	0.0259	2.297	20.26**	0.808
	(0.0813)	(2.003)	(30.33)	(0.497)
Political Exclusion	7.482**	0.306	0.0315**	2.016**
	(7.578)	(0.290)	(0.0439)	(0.617)
Number of Non-State Actors	1.285	0.977	14.13**	0.744
	(1.323)	(0.710)	(16.03)	(0.228)
Drought Ratio x Number of Non-State Actors	1.327	0***	0.326**	0.777
	(0.681)	(0)	(0.173)	(0.283)
Organizational Capacity	1.147	7.298×10^{10}***	1.238	0.756
	(0.646)	(8.920×10^{10})	(1.061)	(0.198)
Mobilizational Capacity	0.725	1.179	1.446	0.688
	(0.656)	(1.066)	(1.140)	(0.245)
Political Representation	1.940	9.642**	11.73**	2.202***
	(1.384)	(11.00)	(11.66)	(0.615)
External Support	0.666	2.105	4.831	0.362***
	(0.397)	(1.531)	(7.359)	(0.112)
Natural Resources	11.75**	0.152**	0.0963**	1.159
	(12.55)	(0.135)	(0.108)	(0.415)
Ethno-Linguistic Fractionalization	4.562	0.0159	1.031	0.0825**
	(10.21)	(0.0531)	(5.695)	(0.0944)
Regime Type	0.182	0.827	3.14×10^{-8}***	0.370
	(0.220)	(0.573)	(3.23×10^{-8})	(0.259)
Ln GDP *per capita*	0.848	0.138**	1.937	1.019
	(0.490)	(0.115)	(3.889)	(0.328)
Ln Population	1.213	0.511	0.605**	0.753*
	(0.466)	(0.256)	(0.145)	(0.110)
Time Frame	0.138***	44.96***	0.317	0.749
	(0.104)	(52.68)	(0.474)	(0.233)
Region	0.231	0.0716***	2.272	1.601
	(0.270)	(0.0697)	(2.132)	(1.007)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

argue that *an increase in the drought ratio does significantly prolong civil wars having multiple rebel groups* (*Hypothesis 2(a)*: Supported) and that *an increase in the drought ratio in an ongoing civil war having multiple rebel groups significantly decreases the incidence of both government and rebel victories* (*Hypothesis 2(b):* Unsupported).

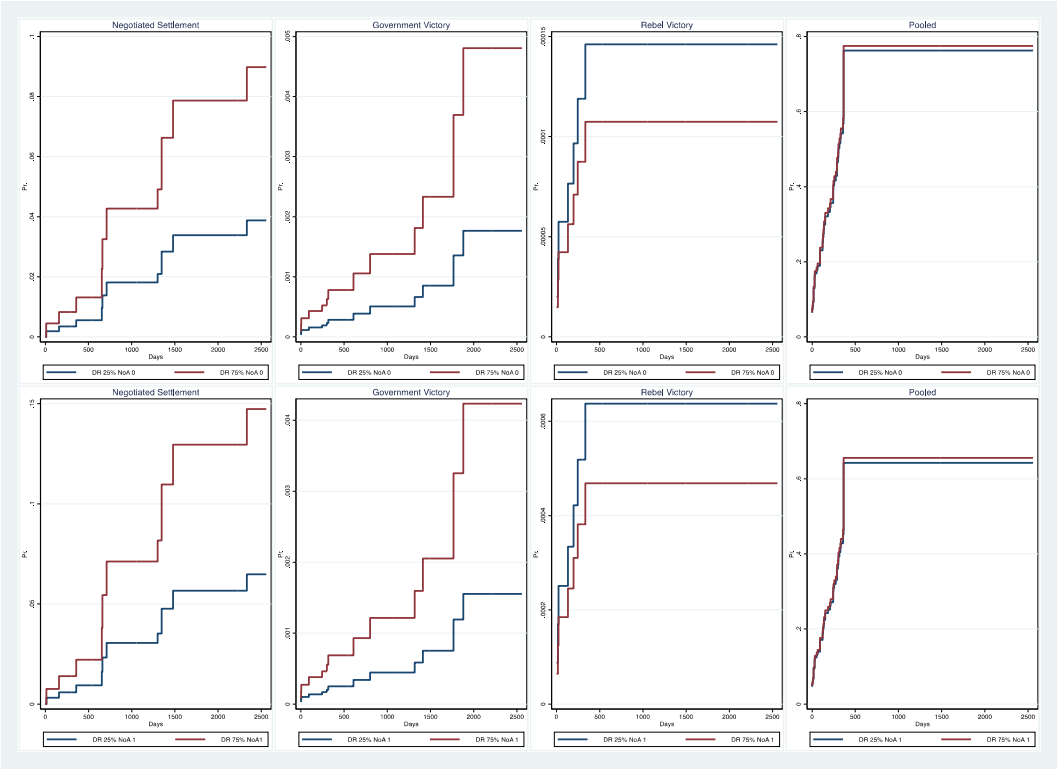

Figure 10: The Impact of Drought Ratio x Number of Non-State Actors on Civil War Duration & Outcomes

According to *Figure 10* above regarding the marginal effects of the relevant interaction term at different time points, it is evident that in an almost four-year-long period (*1500 days*), if an ongoing civil war has multiple active rebel groups, an increase in the drought ratio from *25%* to *75%* makes civil wars more likely to end with a government victory but less likely to end with a rebel victory. Furthermore, the marginal

impact on government victories increases as the civil war duration prolongs. Nevertheless, it is important to note that their marginal impacts are not substantively sizable to be considered (less than *1%*).

The last two tables below (*Table 6* & *Table 7*) demonstrate the impact of exclusive/discriminatory state policies against particular social groups interacting with persistent droughts on civil war duration and outcomes. In more detail, each table presents a separate model measuring the impact of the respective interaction terms on civil war dynamics in order to understand whether droughts interact with *political exclusion* and *economic discrimination* and to what extent they impact civil war duration and outcomes. In this regard, *Model III* is presented in *Table 6* below, in which an interaction term (*drought ratio x political exclusion*) is added to the Base Model in order to test *Hypotheses 3(a.1)* and *3(b.1)*. As can be seen from *Table 6*, after adding the interaction term to the Base Model, most of my covariates stay the same in terms of the direction of the impact and statistical significance, except the variables of drought ratio and ln population. Compared to the Base Model, the drought ratio, in particular, becomes significantly associated with a *15-fold* increase in the incidence of negotiated settlements implying shorter civil wars- at the 95% confidence level ($p<0.05$), but insignificant for government victories even at the 90% confidence level. Moreover, it becomes significantly associated with an *82%* decrease in the incidence of rebel victories -implying longer civil wars ($p<0.1$). Looking at the interaction term of the *drought ratio* with the *political exclusion*, it is not significantly associated with any civil war outcomes at any confidence level. This implies that in states where the social base of rebel groups is excluded from political processes, an increase in the drought ratio does not significantly impact civil war duration and outcomes. Therefore, given the lack

Table 6: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
(Model III: Drought Ratio x Political Exclusion)
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	15.73**	5.972	0.181*	0.734
	(19.93)	(7.678)	(0.183)	(0.589)
Economic Structure	0.948*	0.828***	1.084	0.999
	(0.0267)	(0.0411)	(0.0606)	(0.0119)
Economic Discrimination	0.0772	2.494	33.21**	0.934
	(0.200)	(2.399)	(55.87)	(0.553)
Political Exclusion	14.95***	0.249	0.0322**	1.738*
	(15.09)	(0.254)	(0.0491)	(0.539)
Drought Ratio x Political Exclusion	0.218	1.889	5.650	1.798
	(0.318)	(4.202)	(7.840)	(1.605)
Number of Non-State Actors	1.469	0.880	9.659**	0.721
	(0.899)	(0.705)	(9.293)	(0.231)
Organizational Capacity	1.130	5.157×10^{9}***	1.272	0.758
	(0.575)	(5.474×10^{9})	(1.102)	(0.201)
Mobilizational Capacity	0.610	1.329	2.000	0.743
	(0.526)	(1.278)	(2.003)	(0.263)
Political Representation	2.409	7.580*	8.608**	1.821*
	(1.540)	(7.941)	(8.063)	(0.593)
External Support	0.821	1.967	4.168	0.360***
	(0.542)	(1.470)	(5.755)	(0.109)
Natural Resources	11.35**	0.164**	0.113**	1.209
	(11.98)	(0.151)	(0.106)	(0.437)
Ethno-Linguistic Fractionalization	1.969	0.0229	1.436	0.136**
	(4.899)	(0.0788)	(7.769)	(0.128)
Regime Type	0.171	0.725	6.51×10^{-11}***	0.375
	(0.199)	(0.525)	(7.17×10^{-11})	(0.250)
Ln GDP *per capita*	0.660	0.163*	1.826	1.167
	(0.417)	(0.168)	(3.249)	(0.370)
Ln Population	1.146	0.474	0.656	0.749**
	(0.464)	(0.253)	(0.187)	(0.108)
Time Frame	0.126***	56.65***	0.325	0.730
	(0.0975)	(65.20)	(0.431)	(0.225)
Region	0.287	0.0461***	1.871	1.227
	(0.386)	(0.0499)	(1.930)	(0.774)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

of significant empirical evidence, one can claim that *in the existence of politically excluded social groups, persistent droughts do not significantly prolong civil wars* (*Hypothesis 3(a.1)*: Unsupported) and that *in the existence of politically excluded social groups, persistent droughts do not have any significant impact on the incidence of civil war outcomes* (*Hypothesis 3(b.1)*: Unsupported).

Last but not least, *Table 7* below presents *Model IV*, in which I add an interaction term (*drought ratio x economic discrimination*) to the Base Model in order to test *Hypotheses 3(a.2)* and *3(b.2)*. After adding the interaction term to the Base Model, nearly all of the variables stay the same in terms of the direction of the impact and statistical significance, except drought ratio, economic discrimination, regime type, and region. Compared to the Base Model, the drought ratio becomes insignificantly associated with the incidence of negotiated settlements but an almost *nine-fold* increase in the incidence of government victories ($p<0.05$) in a short period of time. The variable of economic discrimination does not significantly associate with any of the civil war outcomes at any confidence level. Turning to the interaction term between the *drought ratio* and *economic discrimination*, it is not significantly associated with any civil war outcomes at any confidence level. This implies that in states where the social base of rebel groups experiences greater economic discrimination, an increase in the drought ratio does not significantly impact civil war duration and outcomes. Based on this empirical evidence, one can conclude that *in countries with greater economic discrimination against particular social groups, an increase in the drought ratio does not significantly affect the duration of civil wars* (*Hypothesis 3(a.2)*: Unsupported) and that *in countries with greater economic discrimination against particular social groups,*

Table 7: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
(Model IV: Drought Ratio x Economic Discrimination)
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.076	9.246**	0.442	0.951
	(2.218)	(8.710)	(0.356)	(0.459)
Economic Structure	0.939*	0.835***	1.077	0.999
	(0.0340)	(0.0445)	(0.0523)	(0.0120)
Economic Discrimination	0	2.284	5.640	0.802
	(0)	(2.087)	(12.84)	(0.467)
Drought Ratio x Economic Discrimination	4.313×10^{11}	0	1,034	1,152
	(9.158×10^{12})	(0)	(7,497)	(9,291)
Political Exclusion	12.52*	0.294	0.0964***	1.946**
	(17.06)	(0.291)	(0.0816)	(0.570)
Number of Non-State Actors	3.789	0.882	4.524**	0.708
	(3.458)	(0.671)	(3.128)	(0.225)
Organizational Capacity	1.217	1.133×10^{7}***	0.863	0.692
	(0.677)	(1.323×10^{7})	(0.801)	(0.184)
Mobilizational Capacity	0.497	1.221	1.698	0.755
	(0.467)	(1.114)	(1.569)	(0.271)
Political Representation	1.864	8.236**	8.712**	2.111***
	(1.214)	(8.412)	(8.756)	(0.585)
External Support	0.708	1.979	3.311	0.342***
	(0.413)	(1.408)	(4.291)	(0.107)
Natural Resources	21.07***	0.159*	0.0911***	1.232
	(17.80)	(0.151)	(0.0820)	(0.449)
Ethno-Linguistic Fractionalization	14.24	0.0190	0.531	0.115**
	(28.55)	(0.0625)	(2.659)	(0.109)
Regime Type	0.0542**	0.812	4.07×10^{-7}***	0.394
	(0.0674)	(0.581)	(4.01×10^{-7})	(0.268)
Ln GDP *per capita*	1.049	0.146**	1.585	1.096
	(0.656)	(0.114)	(2.748)	(0.336)
Ln Population	1.285	0.494	0.644*	0.758*
	(0.454)	(0.260)	(0.156)	(0.109)
Time Frame	0.107**	46.02***	0.290	0.698
	(0.100)	(51.87)	(0.384)	(0.225)
Region	0.0550*	0.0647***	2.235	1.398
	(0.0940)	(0.0585)	(2.472)	(0.810)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

an increase in the drought ratio does not significantly affect the outcome of civil wars (*Hypothesis 3(b.2)*: Unsupported).

3.5 Robustness Assessments

To check whether the results presented in the tables above are robust, I evaluate the results with several model specifications. Given the limited space, these robustness models are presented in the Appendices (see *Appendix B*, *D-E*). First, I model all interaction terms simultaneously under the *Full Model* (see *Appendix B*: *Tables B-6 – B-7*). The aim is to see whether my results are still obtained when controlling for each respective interaction effect simultaneously. Despite the increased levels of multicollinearity in the corresponding models, as *Table B-6* in *Appendix B* shows, I still obtain my primary results, generally speaking. Furthermore, even when modeling all the interaction terms simultaneously with an alternate operationalization of the independent variable (see *Appendix D*: *Tables D-20 – D-21*) and with the dataset in which ethnic conflicts are dropped (see *Appendix E*: *Tables E-32 – E-33*), I generally still obtain the same key findings and conclusions above for my hypotheses. To further evaluate whether the results presented are robust, and as elaborated upon in more detail further below, I omit the mediator variables (see *Appendix F*: *Tables F-44 – F-45*) and also omit a set of control variables with very large or small coefficient estimates (see *Appendix G*: *Tables G-56 – G-57*) from the Full Model. Even after omitting the mediator and offending variables from the model, my findings still hold.

Second, I check whether the proposed model violates the *proportional-hazards assumption* since the competing risks survival model I used in the analysis (*Fine-Gray*) is analogous to the *Cox proportional-hazards model*. By doing this, I demonstrate whether the results presented and discussed above violate the aforementioned

assumption. In brief, this assumption check examines whether the impacts of the variables I used in the proposed model are constant or changes over time. According to the proportional-hazards assumption, "the effect of a change in the independent variable is to shift the hazard of the event of interest by a factor of proportionality and [...] the size of the shift [is to] remain[..] constant over time" (Box-Steffensmeier et al., 2003, p. 34). Any violations against the assumption should be addressed by adding an interaction term with time (*variable x natural log time*) to the model (Box-Steffensmeier et al., 2003, pp. 36–37).[93] Accordingly, the post-estimation *Wald test* indicates that my proposed model as a whole does violate the proportional-hazards assumption (*p-value*=0.0030). After conducting the same test for each covariate, it becomes evident that only two variables (*drought ratio* (*p-value*= 0.0118) & *time frame* (*p-value*= 0.0039)) violate the proportional-hazards assumption, meaning that their impacts change over time. Therefore, I add an interaction term with time for the aforementioned variables to the Base Model in order to understand whether and how their impact changes over time on the *pooled outcome*. The results show that after adding them to the Base Model, the direct effect of the *drought ratio* becomes positive and statistically significant, whereas the relevant interaction term is negative and statistically significant. On the other hand, the direct impact of the *time frame* becomes positive and statistically insignificant, whereas the relevant interaction term is negative and statistically significant. All these mean that the *drought ratio* increases the incidence of the *pooled*

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[93] For more information regarding how to check the proportional-hazards assumption for event history analysis in International Relations and how nonproportional-hazards can provide valuable information about the time-varying impacts of covariates, please see: Box-Steffensmeier et al. (2003). Nonproportional Hazards and Event History Analysis in International Relations. *The Journal of Conflict Resolution, 47*(1), 33-53.

outcome at the outset, but its impact decreases over time. Similarly, the *time frame* does not significantly impact the *pooled outcome* at the outset, but its impact decreases the incidence over time (see *Appendix C*: *Tables C-8 – C-9*). As Box-Steffensmeier et al. (2003) point out, although conventional competing risks survival analyses do not allow the time-varying impacts of variables in proposed models, *nonproportional-hazards models* can still provide valuable information like the above. Therefore, there is no obstacle to relaxing the proportional-hazards assumption for my proposed model.

Third, the models provided above examine the impact of droughts on civil war dynamics by calculating the number of days under drought (*drought ratio*). To be sure that my key results and conclusions are robust to this measurement decision, I conduct the same analysis with a different measure of drought. Instead of the number of days under drought in civil wars (*drought ratio*), I simply consider whether or not droughts and civil wars overlap (*drought overlap*). By doing this, I aim to see whether the results are still robust with an alternate operationalization of my independent variable. As can be seen in *Appendix D*: *Tables D-10 – D-21*, the results are highly robust even when using an alternate operationalization of droughts. In the *Base Model*, the *drought overlap* becomes significantly associated with a *four-fold* increase in the incidence of negotiated settlements ($p<0.01$) and a *five-fold* increase in the incidence of government victories ($p<0.1$). In an almost four-year-long period (*1500 days*), when droughts *overlap* with civil wars, they are *12%* more likely to end with a negotiated settlement and *0.03%* more likely to end with a government victory, controlling for all other variables at their mean or median values and considering other outcomes as competing risks. These findings imply that when droughts and civil wars overlap, civil wars are more likely to end with either a negotiated settlement or a government victory in a

shorter period of time than the other outcomes. Moreover, all control variables in the Base Model and the interaction terms in different model specifications (*Model I-IV*) stay the same regarding the direction of impact and statistical significance. In sum, one can claim that the main findings with respect to *drought ratio* are not sensitive to the specific coding decisions for that variable, as similar results are almost obtained when using a differently coded measure (*drought overlap*) for the key independent variable (*drought ratio*).

Fourth, I also check whether the results are still robust when ethnic conflict cases are dropped (*N=1067*). As mentioned previously, the variation of ethnic conflict cases in the merged dataset is very limited (*8% of the observations*). Therefore, the proposed model exhibits a convergence problem, and I need to drop the *ethnic conflict* from the analysis. As is explained above in detail, to *control for ethnic conflicts to some extent indirectly*, I added the *ethnolinguistic fractionalization index* to the analysis. Nevertheless, to examine the *direct impact of ethnic conflicts* (if any) on the nexus between water insecurity and civil war dynamics, I drop the ethnic conflict cases from the merged dataset. By doing this, I aim to verify whether the results are still robust even after dropping the ethnic conflict cases. According to the results in *Appendix E*: *Tables E-22 – E-33*, the results are effectively identical to the ones presented here. In other words, whether a civil war is ethnically based does not make any difference for the duration and outcomes of civil wars. It is important to note that such a result depends on how Cunningham et al. (2009) codify civil wars between 1946-2003.

Last but not least, to evaluate whether the results are still robust without considering the theoretical mediator variables in the proposed models, I omit the variables of *mobilizational capacity* and *ln GDP per capita* as controls from the models.

Since including them as control variables sets a higher bar for significant effects, it is useful to show that my findings still hold when omitting these theoretical mediators from the models completely (see *Appendix F*: *Tables F-34 – F-45*). Moreover, I omit the control variables with extremely large or small coefficient estimates, namely *organizational capacity* and *regime type*, from the proposed models in order to overcome *monotone likelihood issues*. I do so out of concern that these particular control variables may not be precisely estimated, for reasons of monotone likelihood, which in turn may lead some to be concerned that including such controls in my model may also undermine my primary variables' coefficient estimates. In essence, the monotone likelihood becomes a problem when the independent variable nearly perfectly predicts the outcome. By doing this robustness assessment to overcome monotone likelihood issues, I am able to verify that my results still hold even after omitting these offending variables from my proposed models (see *Appendix G*: *Tables G-46 – G-57*).[94]

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[94] According to Anderson et al. (2021, pp. 1654–1655), monotone likelihood issues mainly occur "when covariate values are monotonic when ordered according to failure times. In practice, this most often occurs when a value of a covariate, or a linear combination of covariates, uniquely correspond(s) to all termination events. […] it introduces mathematical complications that can lead to infinite coefficient estimates and standard errors for a particular sample." Put simply, although covariates must covary, the monotone likelihood generates extreme parameter values (large or small) in which a meaningful and reliable interpretation of results is impossible due to a biased model in which the true covariate effects are over- or under-estimated. Although it is likely to introduce *omitted variable bias*, one of the simple solutions to this problem is to omit the offending variable(s) from the analysis -the strategy that I employ for the analysis. Since the offending variables in the analyses above are merely controls, the omitted variable bias becomes a less concerning issue for my proposed model. For more information about what the monotone likelihood is, why it occurs in duration models, and in what ways it can be overcome (mainly through the application of penalized maximum-likelihood estimation, called the *Firth Cox approach*, in Cox proportional-hazards models), please see: Anderson et al. (2021). Addressing Monotone Likelihood in Duration Modelling of Political Events. *British Journal of Political Science, 51*(4), 1654-1671.

3.6 Conclusion

As clearly stated in the Introduction, this dissertation aims to provide answers to the following questions: why do some civil wars take longer to end compared to others, and how do these civil wars end? Do environmental problems have an impact on civil war dynamics, and if so, by which causal mechanisms do environmental problems impact civil war dynamics? This chapter aims to answer some of these questions by providing a theoretical model of the nexus between water insecurity proxied by persistent droughts and civil war dynamics. According to this theoretical model, water insecurity can impact civil war durations and outcomes by undermining *people's livelihoods* and *state capacity*. Given the impact of drought-induced low agricultural production in the developing world's agricultural-based economies, persistent droughts can pave the way for a *feasible environment* for rebellion by undermining states' capacity to *penetrate society* and conduct effective *counterinsurgency operations* against rebel groups. Furthermore, persistent droughts can engender the loss of people's livelihoods, leading the *increased grievances* against governments due to not providing basic social goods and services in times of need. Such a perfect storm can also encourage would-be rebels to *participate in rebel groups* for economic needs/benefits since rebel groups have a *myriad of illegal activities* to sustain their existence and activities. Given such drought-induced *changes in relative power* between governments and rebel groups, the leaders of both sides can update their *strategic calculations* and decide whether to end or continue fighting. Therefore, persistent droughts can impact civil wars' duration and outcomes through *indirect mechanisms*.

On the other hand, my theoretical model claims that the impact of persistent droughts on civil war dynamics is *conditional* on three major factors: (i) the *weight of agriculture in the economy*, (ii) the *number of active rebel groups* in an ongoing civil

war, and (iii) the *exclusionary/discriminatory state policies* against particular social groups. According to this, if civil wars overlap with persistent droughts, civil wars are much more likely to be prolonged and terminated by either negotiated settlements or rebel victories. But this is conditional on the contentions that (i) the economy of countries experiencing civil wars should be based on agriculture, (ii) the number of active rebel groups against governments should be high, and (iii) particular social groups should be excluded from political processes and/or economically discriminated. It is important to note that this chapter particularly examines these conditional factors by conducting a competing risks survival analysis with a global sample of civil wars (1946-2003) for each civil war outcome and their respective durations.

According to the results presented and discussed above, civil wars generally are more likely to end with *negotiated settlements* (not rebel victories) in a *shorter period* when they experience persistent droughts simultaneously. Although persistent droughts are likely to decrease the required time for the incidence of government victories, the magnitude of impact is unsubstantial relative to negotiated settlements. Therefore, one can conclude that *persistent droughts shorten civil wars for negotiated settlements much more than government victories* when persistent droughts and civil wars overlap. Furthermore, the conditional factors significantly interacting with persistent droughts are the *weight of the agricultural sector* in the economic structure and the *number of active rebel groups* in an ongoing civil war. More directly, as the weight of agriculture in the economic structure increases, civil wars are more likely to end with a government victory in a longer period but more likely to end with a rebel victory in a shorter time. Therefore, one can claim that when persistent droughts and civil wars overlap, *agricultural-based economies prolong civil wars for government victories but shorten*

them for rebel victories. Turning to the number of active non-state actors/rebel groups, if multiple rebel groups operate in an ongoing civil war, an increase in the drought ratio significantly increases the duration of civil wars for the incidence of both government and rebel victories. Based on this, one can conclude that when persistent droughts and civil wars overlap, *the existence of multiple rebel groups prolongs civil wars to end with either government or rebel victories*. Moreover, I have found *no empirical evidence* that there is a relationship between economic discrimination against/political exclusion of rebel groups and persistent droughts that will impact the dynamics of civil war.

In essence, as the number of days under drought increases in an ongoing civil war, that civil war is more likely to end with a negotiated settlement in a shorter time compared to government and rebel victories. Contrary to what my theoretical model predicts, persistent droughts during ongoing civil wars are less likely to increase the duration of civil wars for negotiated settlements and rebel victories. Instead, persistent droughts decrease the duration of civil wars for negotiated settlements and government victories. Furthermore, political exclusion and/or economic discrimination against certain social groups have no impact on the nexus between persistent droughts and civil war dynamics. Although the weight of agricultural production in the economy and the number of active rebel groups have statistically significant impacts on this nexus, they are not substantial enough to be considered in the real world. Nevertheless, it is important to highlight that their statistically significant impacts suggest that there are reliable causal linkages underpinning the relationship between droughts and civil war durations. Even though the impact of droughts seems to have a small effect on civil war duration, droughts may reduce an ongoing civil war by a non-negligible period of time, which, though small in the broader length of a civil war, could lead to thousands of lives

saved, if not more. The ensuing tthree chapters, in which I conduct a comparative case analysis with process tracing, are expected to provide more effective ways and measures to understand what mechanisms between persistent droughts and civil war duration and outcomes cause these results to emerge.

The large-N results presented and discussed so far have several important implications for both the environmental security and civil war literature. First and foremost, even though the environmental security literature mainly focuses on the impact of climate change-induced environmental problems on the initiation of civil wars, the same environmental problems can significantly impact the duration and outcome of civil wars. Second, instead of just focusing on either civil war duration or civil war outcome, simultaneously examining the relationship between civil war duration and civil war outcomes is more informative, given that civil war duration and outcome are inextricably interconnected. Furthermore, examining the civil war duration for each civil war outcome may provide more nuanced information about civil war dynamics. Last but not least, human activities, including violence, are not independent of the nature/environment in which they operate. Changes in nature/environment can also affect human activities, thus impacting socio-political orders.

PART II

The second part of the dissertation aims to achieve two general goals. First, it endeavors to understand whether the proposed causal mechanisms in my theoretical model have internally validated evidence in actual cases through the *process tracing* method (Van Evera, 1997; Bennet & Checkel, 2015; Beach & Pedersen, 2019). Second, it aims to conduct a *comparison* of three African civil war cases to see whether the proposed causal mechanisms can travel to cases selected according to *the most similar systems design* (Przeworski & Teune, 1970; Ragin, 2014). By achieving these goals, I aim to understand whether water insecurity is a *sufficient and/or necessary cause* for prolonged civil wars under certain conditions. In this regard, *Chapter 4* investigates the *Chadian Civil War* as a primary case since Chad has experienced a prolonged civil war with a persistent drought period. *Chapter 5*, on the other hand, investigates the *Sudanese Civil War* in order to see how even a short drought period extends the civil war duration. Last, *Chapter 6* examines the *Ethiopian Civil War* to understand under what conditions a persistent drought could lead to prolonged civil wars. Before elaborating on these cases in respective chapters, I briefly review the proposed indirect mechanisms connecting water insecurity to civil war dynamics below. Then, in a detailed manner, I explain the case selection process and rationale, the propositions based on my proposed theoretical model, and the specific types of evidence that I plan to consider for each proposition from my sources.

As presented in *Chapter 3* regarding my empirical findings, water insecurity, as proxied for by droughts, can be expected to lead to shorter civil war durations and higher

likelihoods of civil war termination in any particular period, especially as it relates to two key manners of civil war termination: negotiated settlement and government victory. Since the marginal impact of droughts on government victories is not substantively sizable at different time points, one can conclude that persistent droughts are more likely to terminate civil wars for negotiated settlements in a shorter time compared to other types of civil war termination outcomes. Although the weight of agricultural production as a share of GDP and the number of active nonstate actors in an ongoing civil war were each found to moderate this impact, their marginal impacts are not substantial enough to be considered meaningful in relation to real-world decision-making. Nevertheless, it is important to highlight that their statistically significant impacts suggest that there are reliable causal linkages underpinning the relationship between droughts and civil war durations. Even though the impact of droughts seems to have a small effect on civil war duration, droughts may reduce an ongoing civil war by a non-negligible period of time, which, though small in the broader length of a civil war, could lead to thousands of lives saved, if not more.

Given the unsubstantial impact of the moderator variables/conditional factors, the second part of this dissertation focuses on the mediating variables/indirect mechanisms between water insecurity and civil war dynamics.[95] In this regard, my theoretical model proposes that persistent droughts are likely to impact civil war duration and outcomes through two mechanisms: (i) *loss of livelihoods* and (ii)

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[95] Mediator variables basically point out how an independent variable can impact a dependent variable. In contrast to mediator variables playing an intermediating role between dependent and independent variables, moderator variables basically play a role in changing the strength and/or direction of the relationship between the two variables. For more information on mediator and moderator variables and what role they play in my theoretical model, please see *Chapter 3*.

decreased state capacity. In developing countries' typically agriculture-based economies, prolonged droughts are likely to disrupt agricultural production, thus undermining people's livelihoods and state revenues. Such an outcome can lead to heightened grievances against governments that are not able to provide basic social services in times of need. Furthermore, given the economic hardships people experience and the non-agricultural activities of rebel groups, people can participate in rebel groups due to the economic incentives they provide. In addition to their inability to provide basic social services, states can also be less likely to continue their counterinsurgency activities due to their reduced agricultural revenues. Thus, drought-induced changes in state capacity and rebel groups' mobilization capacity are likely to impact the balance of power between government forces and rebel groups on the ground. Such drought-induced changes in relative power can force warring parties to update their strategic calculations regarding the continuation or termination of an ongoing civil war. Their decisions, ultimately, decide the outcome as well as the duration of civil wars (see *Figure 5* in *Chapter 3*).

Case Selection

Since the aim of this dissertation is to understand the causal mechanism(s) underlying water insecurity and civil war dynamics, I select my cases only if both the independent (droughts) and dependent (civil wars) variables coexist in a given case. To do this, I use the datasets of Cunningham et al. (2009) and Guha-Sapir et al. (2022) in order to identify overlapping civil war and drought cases, respectively. Nevertheless, to avoid case selection bias to some extent, I categorize cases in a way that both my dependent and independent variables have some variation in their durations. In this regard, I create a bivariate table in which both droughts and civil wars are categorized

according to their durations; short *versus* long (see *Table 8* below). If their durations are more than the average value of civil war duration for this sample, I categorize them as long; if they are less, I categorize them as short.[96] Then, from each category, I select cases with extreme values on the independent and dependent variables in order to make the causal mechanism(s) more visible and easier to follow (Goertz, 2017, Chapter 3; Seawright, 2016, Chapter 4; Seawright & Gerring, 2008).

It is important to note that I choose cases according to *the most similar systems design* in order to be sure that the focus is only on identifying the causal mechanism(s) between droughts and civil war durations (see Przeworski & Teune (1970); Ragin (2014)). According to the most similar systems design, researchers should find similar cases in many aspects to make inferences from a sufficient sample. If any difference can be found between these similar cases, then the outcome can be attributed to that difference. In this method, similarities are seen as control variables, while differences are considered explanatory variables. Thus, the cases of this dissertation are selected according to the logic of the most similar systems design in order to control many factors as much as possible to figure out the significance of droughts on civil war durations (Przeworski & Teune, 1970, pp. 33–38; Ragin, 2014, Chapter 3). In this regard, three similar African cases with extreme values on the durations of droughts and civil wars,

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[96] In calculating the average duration of droughts, the ones that took place in less than one year are not discarded, even though most of them are related to short-term rainfall anomalies. After adding such cases to the calculation, the average duration of droughts is found as almost 1 year (*10.2 months*). Based on that outcome, droughts are categorized as long (*over 1 year*) or short (*less than 1 year*). Similarly, in calculating the median duration of civil wars, the ones that took place in less than one year are not discarded, even though most of them are related to military coups. With the addition of such cases to the calculation, the median of civil wars is found as *4 years*. Based on that outcome, civil wars are categorized as long (*over 4 years*) or short (*less than 4 years*).

namely *Chad*, *Sudan*, and *Ethiopia*, are chosen in order to examine whether persistent droughts lead to prolonged civil wars.

Table 8: Case Selection Process[97]

		Civil Wars	
		Long	**Short**
Droughts	**Long**	**(I)** ***Chad*** (1965-1979) Central Africa	**(III)** ***Ethiopia*** (1974-1991) East Africa
	Short	**(II)** ***Sudan*** (1983-2005) North Africa	

To understand the causal mechanism(s) regarding how droughts can impact civil war durations, I employ a *minimalist process tracing* method. Since the nexus between water insecurity and civil war dynamics has not been studied to a large extent by relevant literatures (see *Literature Review* in *Chapter 2*), one can provide a *plausibility*

[97] For more information regarding how I categorize and select cases, please see *Appendix H*: Tables *H-58 – H-62*. The cases in which droughts and civil wars overlap in the relevant categories are highlighted in red in *Tables H-58 – H-61*. *Table H-62* shows the final version of appropriate cases for each category. The cases with extreme values are selected from this table for the comparative process tracing analysis and they are highlighted in red.

probe to test my proposed theoretical model by employing this process tracing method (Beach & Pedersen, 2016, Chapter 9, 2019, Chapter 8).[98] Although this method does not provide detailed information about the causal mechanism(s), one can at least have some evidence that water insecurity is likely to impact civil war dynamics. In this regard, *Quadrat I* in *Table 8* represents the *most-likely case* or the *causal mechanism case*: Chad. Since Chad experienced two persistent droughts (13 years in total) in an ongoing prolonged civil war (24 years), the causal mechanism between water insecurity and civil war dynamics is the most likely to be seen. Furthermore, *Quadrant II* and *Quadrat III* represent the *equifinality* and *falsification* cases, respectively. While an equifinality case examines "cases where the [proposed] causal mechanism is absent … [but] the outcome [still] occurs," thus pointing out the alternative causal mechanisms that produce the outcome (Goertz, 2017, p. 68), a falsification case investigates cases where the independent variable exists but does not produce the outcome/dependent

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[98] According to Beach & Pedersen (2016, Chapter 9, 2019, Chapter 8), the process tracing method, in general, can be divided into two types based on how detailed causal mechanism(s) is(are) elaborated: *Minimalist* and *in-depth* process tracing. While the minimalist approach is advantageous to provide a probability probe if the causal mechanism(s) between dependent and independent variables is(are) not well-specified, the in-depth approach aims to provide a much more detailed causal mechanism between cause and effect if the causal mechanism(s) is(are) well-specified. For more information regarding how to combine comparative and within-case analysis for causal studies, such as controlled comparison and process tracing, please see: George & Bennett (2005). *Case Studies and Theory Development in the Social Sciences*. MIT Press. (Chapters 8, 10, 11).; Beach & Pedersen (2016). *Causal Case Study Methods: Foundations and Guidelines for Comparing, Matching, and Tracing*. University of Michigan Press. (Chapters 3, 9).; Goertz (2017). *Multimethod Research, Causal Mechanisms, and Case Studies: An Integrated Approach*. Princeton University Press. (Chapter 2). For more information regarding how to apply process tracing for theory-building, theory-testing, and theory-refinement goals, please see: Bennett & Checkel (2015). Process Tracing: From Philosophical Roots to Best Practices. In A. Bennet & J. T. Checkel (Eds.), *Process Tracing: From Metaphor to Analytic Tool* (pp. 3-37). Cambridge University Press.; Schimmelfennig (2015). Efficient Process Tracing: Analyzing the Causal Mechanisms of European Integration. In A. Bennet & J. T. Checkel (Eds.), *Process Tracing: From Metaphor to Analytic Tool* (pp. 98-125). Cambridge University Press.; Lyall (2015). Process Tracing, Causal Inference, and Civil War. In A. Bennet & J. T. Checkel (Eds.), *Process Tracing: From Metaphor to Analytic Tool* (pp. 186-207). Cambridge University Press.; Beach & Pedersen (2019). *Process-Tracing Methods: Foundations and Guidelines* (Second Edition). University of Michigan Press. (Chapter 8).

variable, thus providing the scope conditions of the proposed causal mechanism (Goertz, 2017, pp. 66–67).

Table 9: Case Selection Rationales[99]

Variables	Case (X, Y)	Case Type	Role
X: Independent Variable -Persistent Drought- **Y: Dependent Variable** -Prolonged Drought-	Chad (1, 1)	Most-Likely	Causal Mechanism(s)
	Sudan (0, 1)	Equifinality	Alternative Causal Mechanism(s) (Necessity)
	Ethiopia (1, 0)	Falsification	Scope Condition(s) (Sufficiency)

Accordingly, since Sudan (*Quadrat II*) had experienced three short drought periods (< 1 year each) in an ongoing prolonged civil war (20 years), it is more likely to explain why my theoretical model fails to predict the outcome by suggesting an alternative causal mechanism. Likewise, Ethiopia (*Quadrat III*) is more likely to explain why the proposed theoretical model fails to predict the outcome by suggesting the scope

[99] For more information regarding the most-likely, counterfactual, equifinality, and falsification cases, please see: Goertz (2017). *Multimethod Research, Causal Mechanisms, and Case Studies: An Integrated Approach*. Princeton University Press. (pp. 63-73). For a short explanation of the selected cases above, please see *Appendix H*: *Table H-63*.

conditions of my theoretical model since Ethiopia had experienced a relatively shorter civil war (17 years) despite the occurrence of a persistent drought (5 years) in its last phase.[100] It is worth noting that as *Quadrat IV* represents the *counterfactual case*, thus not providing a substantial contribution to my theoretical model due to the lack of interested variables, it is left blank and will not be investigated (see Goertz (2017, pp. 70–71)).

Propositions

By using this process tracing method to figure out the plausible causal mechanism(s) between water insecurity and civil war dynamics in a comparison of three similar African civil war cases, I endeavor to seek at least some evidence to support my propositions derived from the proposed theoretical model (see *Chapter 3* for more information). In this regard, my propositions can be categorized into four sequential steps. First, when droughts overlap with ongoing civil wars, droughts are likely to cause (i) the *loss of livelihoods* in the developing world's agriculture-based economies. Considering that most people in developing countries make a living on agricultural income (Evaluation Cooperation Group, 2011),[101] drought-induced loss of livelihoods

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[100] It is clear that Ethiopia had experienced one of the most prolonged civil wars in Africa. The reason I categorize it as a relatively short civil war is related to the occurrence of a persistent drought in its final phase. In other words, based on my theoretical model, one can expect that as Ethiopia experienced a persistent drought during the last phase of an ongoing civil war, that civil war should have been longer than it actually was. Therefore, the factors contributing to the relatively shorter civil war duration are more likely to show us the scope conditions of my theoretical model.

[101] According to a World Bank report written by the Evaluation Cooperation Group (2011, p. 2), most of the population in the developing world depends on agriculture for their livelihood: 2.5 billion people depend on agriculture as their main source of livelihood and income. Furthermore, 75% of people in the developing world live in rural areas, and 86% of them rely on agriculture for their livelihood. For more information, please see: Evaluation Cooperation Group. (2011). *Evaluative Lessons for Agriculture and Agribusiness* (Paper No. 3). World Bank.

can heighten the already existing grievances against governments due to their inability to provide basic social services in times of need. On the other hand, rebel groups can recruit drought-affected people if they are able to provide better economic incentives than governments through their non-agricultural illegal activities, such as plundering, looting, exploiting of natural resources, smuggling, *et cetera*. Nevertheless, it is important to note that droughts do not just affect the lives of people who make a living from agriculture. Droughts also affect the capacity of developing countries, which derive most of their income from agriculture (see Evaluation Cooperation Group (2011, p. 2)). Therefore, (ii) *decreased state capacity* can be another critical consequence of droughts. In the event of drought-induced low agricultural revenues, it can be expected that developing states experiencing civil wars cannot provide basic social services to their societies in times of need. Thus, states' overall capacity to provide state services, infrastructure, and security to societies may decrease. Moreover, considering that their military capacity is based on agricultural revenues (see Klomp (2022)), it can be expected that the reductions in agricultural revenues may adversely affect developing states' military capacity and put them in a weak position against rebel groups.

Based on these two complementary causal mechanisms, one can expect to see (iii) *changes in the relative power* or the balance of power between rebel groups and government forces. While increased mobilization capacity makes rebel groups more capable of achieving their goals in a shorter time, decreased state capacity makes government forces weaker relative to rebel groups. For this reason, the government forces' ability to achieve a military victory in a shorter time becomes weaker. The last step of the causal chain sheds light on how such changes in relative power make (iv) *warring parties update their strategic calculations* about the war outcome. According

to this, warring parties decide whether to continue or exit the war by considering the expected utility of victory, the anticipated cost of defeat, the required amount of time for a military victory, and their absorbing capacity of costs. If the equilibrium elucidates a more advantageous position in the future, such as military victory and better terms of an agreement, warring parties continue fighting. If the equilibrium points out a more disadvantageous position in the future, such as a military defeat, warring parties exit fighting in order to have at least a negotiated settlement.[102] Considering all these causal chains elaborated above, one can expect that such a drought-induced causal mechanism may ultimately result in a higher probability of either a rebel military victory or a negotiated settlement relative to government victories. Furthermore, given the inextricably connected nature of civil war outcomes and durations, warring parties' decisions on civil war outcomes, to some extent, shed light on civil wars' respective durations.

Proposition I: *Drought-induced loss of livelihoods heightens the already existing grievances against governments and increases the participation of affected people in rebel groups for economic incentives.*

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[102] As elaborated in the Literature Review (*Chapter 2*), it is important to note that such game theoretic reasoning in which actors calculate their costs and benefits before making a decision, even under a closed information environment, such as wars in general, is a kind of reductionism for theoretical clarification. Given its endogenous nature in which actors solely focus on their self-interests, such game theoretic reasoning tends to omit many exogenous factors from consideration. More importantly, such rational calculations isolate actors from their psychological and historical contexts; thus, making them so-called pure rational actors. For more information regarding how game theoretic reasoning is limited and generally excludes exogenous and/or psychological and historical factors in explaining civil war cases, please see: Kaufman, S. J. (2006). Symbolic Politics or Rational Choice? Testing Theories of Extreme Ethnic Violence. *International Security*, *30*(4), 45–86.; Sisk, T. D. (2022). Elusive Settlements in Regional Conflict Complexes: Syria, Zartman, and the Limits of Ripeness Theory. *Ethnopolitics*, *21*(2), 138–148.

Proposition II: *Drought-induced low agricultural revenues decrease developing states' capacity to penetrate their societies for basic social services in times of need and conduct effective counterinsurgency operations against rebel groups.*

Proposition III: *Drought-induced changes in relative power, namely an increase in rebel groups' public support and mobilization capacity but a decrease in state capacity for providing social services and conducting effective counterinsurgency operations, force warring parties to update their strategic decisions on continuing or exiting the war.*

Proposition IV: *Leaders of warring parties decide whether to continue or exit the war by considering the drought-induced changes in the expected benefits of victory, the anticipated costs of defeat, the required amount of time for a military victory, and their absorbing capacity of costs.*

To test whether the propositions derived from my theoretical model are valid in real civil war cases, I will look at the documents and correspondences as well as public pronouncements of political and rebel leaders/groups, including newspapers, interviews with the press, memoirs, and detailed case studies in other disciplines. To that end, I mainly investigate the daily reports of the *Foreign Broadcast Information Service* (FBIS).[103] By searching this archive, I aim to find at least some supporting evidence

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[103] Between 1942-1997, the Foreign Broadcast Information Service was a component of the *Central Intelligence Agency* (CIA), publishing daily reports of selected countries from different parts of the world. Each year, the FBIS published approximately 250 translated reports, including interviews, declarations, agreements, speeches, news, *et cetera*, which were generally prepared in the local language of the relevant country. As a type of open-source intelligence, these reports were written in English by deriving relevant information from media sources outside the US and in local languages about selected countries. After 1996, however, the *Open Source Enterprise* (OSE) started undertaking the same task with a different name, called *World News Connection* (WNC). Like the FBIS Daily Reports, World News Connection has published daily reports of international news translated into English, including newspaper articles, periodicals, conference proceedings, television/radio broadcasts, *et cetera*, about 130 selected countries

that the plausible causal mechanism between water insecurity and civil war dynamics operates as I elaborated above. Since I employ a minimalist process tracing method to provide a plausibility probe, I generally look for evidence that passes *hoop* and *smoking-gun tests* (Van Evera, 1997, pp. 75–76).[104] Although these tests are not hard to pass and thus provide weak evidence to support theories, they are nevertheless favorable for plausibility probes due to their distinctive research aim: Providing at least some evidence that the causal mechanism(s) may operate as proposed (see Beach & Pedersen (2019, Chapter 8)). In brief, with these historical records, I aim to find some supporting evidence for the propositions elaborated above (see *Appendix I*: *Table I-64*).

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from over 500 media sources. In December 2013, public access to the open-source intelligence enterprise WNC was closed off by the CIA. Therefore, I was only able to reach out to these archival/historical records with an official university library subscription to the *Readex*, an online archive of *NewsBank* for the FBIS reports. For more information regarding the FBIS and WNC, please check the following webpages: FBIS: https://www.readex.com/products/foreign-broadcast-information-service-fbis-daily-reports-1941-1996. WNC: https://www.eastview.com/resources/e-collections/world-news-connection-archive/.

[104] According to Van Evera (1997, pp. 75–76), to understand whether theories are valid, one can look for evidence that passes four kinds of tests: (i) *doubly decisive*, (ii) *straw-in-the-wind*, (iii) *hoop*, and (iv) *smoking-gun*. These tests are constructed on whether the evidence at hand is *certain* and *unique*. In this regard, while evidence that passes the doubly decisive test is both certain and unique, evidence that passes straw-in-the-wind test is neither certain nor unique. The hoop test provides certain but not unique evidence, on the one hand; the smoking-gun test provides not certain but unique evidence, on the other hand. For more information regarding these tests, please see: Van Evera (1997). *Guide to Methods for Students of Political Science*. Cornell University Press.

Chapter 4

CHAD

This and the ensuing chapters aim to shed light on how climate change-induced water insecurity, namely droughts, can impact the duration and outcome of civil wars. In order to figure out whether the propositions elaborated in *Part II* are in effect in actual civil wars, this chapter examines a case from Central Africa: Chad. Chad is the most-likely case in which the causal mechanism between persistent droughts and prolonged civil wars can be easily identified since it experienced one of the longest-running droughts and civil wars in the post-World War II period. Before examining the other cases in the ensuing chapters (see *Tables 8* & *9* in *Part II*), the Chadian case here is expected to assess whether the proposed causal mechanisms, namely drought-induced (i) loss of livelihoods and (ii) decreased state capacity, lead to prolonged civil wars. To this end, I will focus on the extent of the Sahel drought and its impact on the first Chadian Civil War dynamics after giving background information on the civil war case. After I finish tracing the process of the first Chadian Civil War, I will evaluate the evidence found at the conclusion and endeavor to reach a conclusion about the validity of my propositions.

4.1 Introduction

As a landlocked country in Central Africa, Chad is at the intersection of diverse geographic areas and cultural heritages, which many times led to social, political, and economic problems throughout its history. Among African countries, Chad is

considered one of the most unstable countries as it has experienced one of the longest civil wars, and its GDP *per capita* is one of the lowest in the world. According to the 2021/2022 United Nations Human Development Index, for instance, Chad is ranked second to last after South Sudan out of 191 countries (UNDP Team, 2022b, p. 307). The intermittent civil war that has been going on since 1965 and the country's economic structure, which is vulnerable to environmental factors due to its geographical location, make Chad one of the 10 most underdeveloped countries in the world. Furthermore, the legacy of French colonialism on institutions and the ethnic, religious, and cultural cleavages of its population contribute to the Chadian society's weak institutions, problems in its nation-building process, and factionalism in politics. Its strategic location in Africa and natural resources such as petroleum in the *Logone region* and purported uranium deposits in the *Aouzou Strip* also make Chad the prey of several external interventions, namely Muammar Gaddafi's Libyan Arab *Jamahiriya*. Clearly, all these aforementioned factors, to some extent, contribute to explaining why Chad has been struggling with a protracted intermittent civil war since 1965.

Although it is hard to explain the complex civil war dynamics with a few specific factors, this sub-section particularly aims to shed light on how the *Sahel drought* of the 1970s impacted the first Chadian Civil War from 1965 to the toppling of N'Garta Tombalbaye by a military coup in 1975, led by a former military officer Félix Malloum. After achieving its independence from France in 1960, Chad experienced several critical junctures in its history: the increasingly repressive Tombalbaye regime supported the southern animist and Christian *Sara* ethnicity at the expense of central and northern Muslim ethnic groups, namely *Arabs* and *Toubou* people, in political and economic domains. In turn, Arabs in the central region and then Toubou people in the northern

region started a riot in 1966 against Tombalbaye's increasingly discriminatory practices under an umbrella rebel organization, called *FROLINAT* (National Liberation Front of Chad). Realizing that the Chadian army was not able to suppress the rebellion, particularly in the northern region, Tombalbaye embraced France's military support to contain the violence. Despite the active role of the French intervention in the country, Tombalbaye's increasingly authoritarian and discriminatory policies, such as *Authenticité* (Africanization) and the *yondo* initiation rites, alienated the intellectuals, students, and the army, who had supported him before. Furthermore, his maladministration alienated even his own ethnic Sara base in the South. In addition to the ongoing civil war in central and northern regions, Chad experienced one of the most devastating droughts (1968-1976) in its history: "[t]he drought affected some two-thirds of Chad, bringing massive crop failures and the death of over 20 percent of the country's livestock. It was […] estimated that eight to ten years would be required for the economy to regain lost ground" (Decalo, 1997, p. 167).

On top of its historically weak social, economic, and political institutions, I argue that the maladministration of Tombalbaye, backed by the economic devastation caused by the Sahel drought, can, in part, explain why Chad was unable to contain the emerging rebellion in the central and northern regions in its initial phase, thus causing a never-ending, albeit intermittent, civil war in the following years. The adverse effects of the Sahel drought on the civil war occurred mainly through two causal mechanisms. First, although the evidence found was sporadic, the Sahel drought made northern Arab and Toubou people inclined to participate in the FONLINAT due to the loss of livelihoods. Second, but more predominantly, the Sahel drought further undermined the already weak state capacity of Chad in a way that the Tombalbaye regime was not able

to provide basic social services and continue counterinsurgency operations without external support, mainly from France. The latter part was more related to the fact that droughts made the Chadian agriculture-based economy fragile.

To reveal the impact of the Sahel drought on the Chadian Civil War as much as possible, I follow the critical junctures of the civil war in chronological order.[105] First, I start by providing background information about Chad, namely its geographical, ethnic, and economic structures, the legacy of French colonialism, and the decolonization period after World War II. Then, I follow the chronological order of the Tombalbaye regime's critical events from 1960 to 1975, in which both the first Chadian Civil War and the Sahel drought took place. To support my propositions about how droughts can impact civil war dynamics, I provide evidence from historical records of the FBIS whenever possible. Last, I briefly review the post-Tombalbaye period up until the formation of a transitional government by rebel groups.

4.2 Background of Tombalbaye Era

As Azevedo (2005, p. 2) argues, conceptualizing the Chadian Civil War as a mere violent struggle between the North *versus* the South, Nomads *versus* Farmers, Muslim *versus* Non-Muslims, or Sara *versus* Arab and Toubou is problematic since such a perspective reduces a complex civil war process into a simple dichotomy.[106] Based on

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[105] For a detailed chronological order from the start of the French colonialism to the rise of Hissan Habré in Chad, please see: Rondos. (1983). Why Chad?. *CSIS Africa Notes, 18*, 3–4.

[106] For a simple dichotomous reading of the root causes of the Chadian Civil War, please see: Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (pp. 1-24).; Decalo. (1980). Chad: The Roots of Centre-Periphery Strife. *African Affairs, 79*(317), 491-509.; Collier. (1990). Historical Setting. In T. Collelo (Ed.), *Chad: A Country Study* (Second Edition, pp. 1-32). U.S. Government Printing Office.; Fuchs. (1996). Nomadic Society, Civil War, and the State in Chad. *Nomadic Peoples, 38*, 151-162.; Lemarchand. (1980). The Politics of Sara Ethnicity: A Note on the Origins of the Civil War in Chad. *Cahiers d'études Africaines, 20*(80), 449-471.; Lemarchand. (1981).

this argument, I provide some background information on Chad's geographical features, ethnic diversity, economic structure, French colonialism, and the decolonization period in order to understand the complex process of the civil war onset under the Tombalbaye regime (1960-1975) and its continuation thereafter.

4.2.1 Geographic, Economic & Social Structures

As indicated above, Chad is a landlocked country, surrounded by Libya in the north, Sudan in the east, the Central African Republic in the south, and Nigeria, Niger, and Cameroon in the west. Although this location makes Chad a strategic country in establishing a sphere of influence in Africa, the same location makes it vulnerable to environmental factors, such as rainfall anomalies and droughts. More precisely, Chad hosts three different climatic zones in the northern, central, and southern regions (see *Figure 11* below). While the southern *Soudanian* region is within the tropical zone, the central and northern regions are within the *Sahelian* and *Saharan* zones, respectively. That is to say, a large part of Chad's territory, particularly the Saharan zone, does not get enough rainfall to cultivate even subsistence crops. Although the Saharan zone is a fully arid zone in which nothing can be grown, some nomadic tribes can nevertheless herd their camels, sheep, and goats. The Sahelian zone, on the other hand, is a relatively semi-arid area in which people can make a living from animal husbandry, subsistence farming, and to some extent, market-oriented farming. The southern Soudanian zone, in contrast, is plentiful with more and better resources due to its high amount of precipitation and oil reserves in the Logone region. Therefore, this region hosts Chad's

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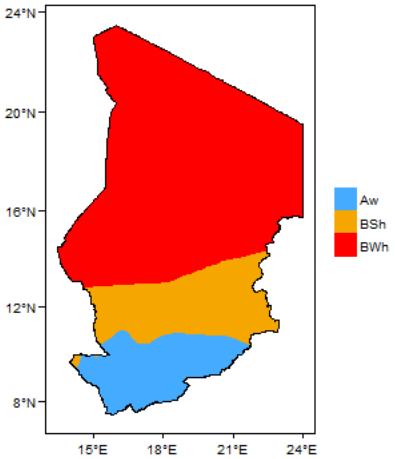
Chad: The Roots of Chaos. *Current History*, *80*(470), 414-417, 436-438.; Lemarchand. (1986). Chad: The Misadventures of the North-South Dialectic. *African Studies Review*, *29*(3), 27-41.

most fertile croplands, of which almost half of its GDP comes from these arable lands. Export-oriented cotton farms, which are the leading cash crop industry and thus the locomotive of the country's underdeveloped economy, are also located in this area (Coats, 1990, pp. 89–95; Cordell, 1990, pp. 39–42). As an indication of the region's salience, "90 percent of Chad's population lives in this tenth portion of the country, roughly the area below N'Djamena, the capital" (Azevedo, 2005, p. 4).

It is important to highlight that these three climatic zones also correspond to the ethnic and religious fragmentation of Chadian society. In other words, ethnic and religious groups are typically concentrated in a single one of these climatic zones. While most of the population is concentrated in the Soudanian tropical zone, in which the main occupation of people is agriculture, the least densely populated area is the Saharan and the Sahelian zones, in which people have few means of livelihood to survive. Thus, nomadic and semi-sedentary tribes mainly occupy the Sahara and Sahel regions, respectively (Cordell, 1990, pp. 42–45). Generally speaking, the northern arid and the central semi-arid areas are home to the Muslim population, mostly Arabs and Toubou people, whereas the southern arable lands host the Animist and Christian Sara people (Azevedo, 2005, pp. 4–6). Chad has historically been located on the trade routes connecting North and Central Africa and thus the locus of intermingled social groups. It has more than 200 ethnic groups and more than 100 languages. Nevertheless, to make this complex social fabric more comprehensible, categorizing Chadian society based on social groups' power from their numerical size could be an effective way, as some scholars do (e.g., Azevedo (2005); Cordell (1990); Decalo (1997); Rondos (1983); Thompson & Adloff (1981)). In this regard, based on their political impact and

numerical size, Chadian society can be classified into three categories in terms of ethnicity: (i) the Sara people, (ii) the Arabs, and (iii) the Toubou people, respectively.



Aw: Equatorial savannah with dry winter | BSh: Hot steppe climate | BWh: Hot desert climate

Figure 11: Climatic Zones of Chad[107]

The most clearly identifiable ethnic group is the Sara people, occupying almost all the most arable, densely populated, and developed southern Soudanian regions. One-third of the Chadian population consists of the Sara people, and most of them are either Animist or Christian. The designation of "Sara" was given by the northern slave traders, mostly Muslim Arabs, as an umbrella term (*Nassara*) for Christian people in the south. In order to escape from the raids of the proselytizing Arab and Toubou slavers from

[107] This figure was created by using the CRU TS 3.21 Dataset by the Climatic Research Unit at the University of East Anglia, UK. Source: Harris et al. (2014). Updated High-Resolution Grids of Monthly Climatic Observations – the CRU TS3.10 Dataset. *International Journal of Climatology*, 34(3), 623-642. For more information regarding the climatic zones of other countries, please see the Climatic Research Unit website: https://www.uea.ac.uk/web/groups-and-centres/climatic-research-unit/data.

Kanem-Bornu, Baguirmi, and Quadai Kingdoms[108] in the Sahelian and Saharan zones, most of the Sara people migrated from the northern and central parts to southern Chad, where they started to earn their living from agriculture. In this most productive region, the Sara people cultivate two cash crops (cotton and rice), which are the leading export commodities in the Chadian economy. During the colonial period, the French primarily sought out the Sara people as the most suitable ethnic group for forced cotton cultivation due to a number of longstanding stereotypes. Compared to the Arabs and Toubou who established several kingdoms in central Chad (e.g., the Kanem-Bornu, Bagurmi, and Quadai Kingdoms), the Sara people are historically a stateless society in which they are socially organized under traditional chieftainships, though they are weaker compared to central and northern chieftainships. Instead of taking this traditional chieftain system into consideration, the French colonial system superimposed a new village chieftain system, in which the French preferred to work with collaborators without an independent support base (Azevedo, 2005, pp. 7–8; Cordell, 1990, pp. 65–66; Rondos, 1983, p. 2).[109,110]

The second powerful and numerous ethnic group is the Arabs, who comprise almost one fourth of the Chadian population. Most of the Arabs migrated to Chad from

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[108] For more information regarding the political structure of the Chadian pre-colonial period, please see: Azevedo. (2005). *Roots of Violence: A History of War in Chad* (Digital Print Edition). Routledge. (Chapter 2).; Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (pp. 7–9).

[109] For more information regarding who the Sara people are and how French colonialism contributed to the formation of the Sara ethnic identity through creating class consciousness in cotton farms, please see: Lemarchand. (1980). The Politics of Sara Ethnicity: A Note on the Origins of the Civil War in Chad. *Cahiers d'études Africaines, 20*(80), 449–471.

[110] Although they are not detailed relative to other cited sources in providing information about these three major Chadian ethnic groups, the following sources can also provide generic information about who the Sara people are: Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (pp. 2–7).; Thompson. & Adloff. (1981). *Conflict in Chad*. University of California, Berkeley. (pp. 1–5).

Libya and Sudan in the 15th century and pursued a semi-sedentary lifestyle and trade. Just like the Sara people, the Arabs were able to maintain their distinctive lifestyle, religion (Islam), and language (Arabic). Arabic is the second most spoken language after French in Chad, even among non-Arab tribes. Islam is seen as a source of prestige by most Arabs. Therefore, they consider themselves culturally superior compared to non-Muslim ethnic groups, such as the Sara, though they are not as politically powerful as they were in the past (see Thompson & Adloff (1981, p. 4)). Particularly in the post-colonial period, for instance, the Arabs have not played a decisive role in the Chadian political system as the Sara and the Toubou have done. This difference can be attributed to two factors: First, due to their feelings of superiority, the Arabs were indifferent and resistant to Western education and the capitalist economy imposed by the French colonial administration. Second, the French colonial administration was unable to penetrate the traditional Arab social and economic structure. Furthermore, the French were reluctant to do this as long as the Arabs were able to manage to protect and keep the north-south trade routes open (Azevedo, 2005, p. 8; Cordell, 1990, pp. 63–65; Rondos, 1983, p. 2).

The last ethnic group, who played an active role in the rebellion under the FROLINAT against the Tombalbaye regime, is the Toubou people. As a nomadic and warlike ethnic group[111], the Toubou people are considered *mountain people* who have historically been free from any political authority. Their livelihoods are mainly based on animal husbandry and sustenance agriculture in a few oases in the Sahara Desert.

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[111] For the role played by the northern ethic groups in the Chadian Civil War (Teda, Daza, & Goran) based on their nomadic lifestyles, please see: Fuchs. (1996). Nomadic Society, Civil War, and the State in Chad. *Nomadic Peoples*, *38*, 151–162.

They occupy the northern part of Chad, particularly the *Borkou-Ennedi-Tibesti* (BET) prefecture, where the *Second Liberation Army* of FROLINAT was established. Given the lack of any political authority, the Toubou people have been organized as chieftainships, and several warlords over the years have fought each other to take control.[112] One of these chieftainships in northwest Chad (*Tibesti Massif*) has a hereditary, spiritual, and temporal leadership called the *Derde*, who had played a decisive role in the establishment and continuation of the northern rebellion. The two names from the Toubou people, Goukouni Queddei, the son of the last Derde, and Hissan Habré, a *Daza* Toubou from Faya Largeau, took a significant role in the political developments after Chad's independence from the French in 1960 (Azevedo, 2005, pp. 8–9; Cordell, 1990, pp. 61–63; Rondos, 1983, p. 2).

4.2.2 Legacy of French Colonialism

As elaborated above, Chad is at an intersection in which several geographical, economic, ethnic, and religious features intermingle. More importantly, most of these features emerge together in the form of clusters in Chad's various regions. Arabic-speaking Muslim Arabs and Toubou people occupy the central and northern regions

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[112] In the literature on the Chadian Civil War, there is a scholarly debate on whether rebel groups/leaders could be designated as *warlords*. While some argue (e.g., Azevedo (2005, pp. 91–95)) that since they do not have any secessionist aims, rebel groups/leaders cannot be categorized as warlords, others (e.g., Charlton & May (1989) & Debos (2016)) points out their parochial interests in the continuation of the civil war and thus how they undermine each peace process to secure their power base. Given the endemic factionalism in FROLINAT particularly after the demise of the Tombalbaye regime up until the rise of Idriss Déby, the Chadian political system seems more like *warlordism*, in which various warlords in specific parts of the country struggle with each other to dominate and take control of the country. For more information regarding this scholarly debate, please see: Azevedo. (2005). *Roots of Violence: A History of War in Chad* (Digital Print Edition). Routledge. (pp. 91-95).; Charlton. & May. (1989). Warlords and Militarism in Chad. *Review of African Political Economy*, *16*(45-46), 12-25.; Debos. (2016). *Living by the Gun in Chad: Combatants, Impunity and State Formation*. Bloomsbury Publishing.

where they earn their lives through animal husbandry, herding, subsistence, and, to some extent, market agriculture. Non-Arabic speaking Animist and Christian Sara people, in contrast, occupy the most productive southern regions where they mostly live on export-oriented cotton cultivation, enforced by the French in the colonial period. In making this generic categorization more visible and perpetuating it in the post-independence period, French colonialism (1900-1960) played an important role. The French not only made the distinction between the north and the south more salient by playing with the Chadian ethnic configuration, but they also made the already weak political and economic system more exploitable by making it dependent on French military intervention and economic aid. Given this colonial legacy, along with the endemic factionalism in Chadian politics, the state apparatus has not been able to control the violence within its territory without external interventions, be they military or economic. As a result, the history of Chad is full of struggles between warlords and several external interventions in order to dominate or control the political trajectory of the country. Thus, by many (e.g., Kelley (2018); Nolutshungu (1996)), Chad is seen as a *de jure* state rather than a *de facto* one: a state (i) that is not able to control its domestic violence and territory against internal and external threats without outside help and (ii) whose existence is guaranteed by international norms and regulations of the UN and the Organization of African Unity (OAU), namely territorial integrity and sovereign equality (see Kelley (2018, Chapter 1); Nolutshungu (1996, pp. 4–16)).

In fact, from the perspective of the French metropolitan elites, the colonization of Chad from the late 20th century to 1960 was undesirable but deemed necessary for the French interests in Central and West Africa (see Collier (1990, p. 11); Thompson & Adloff (1981, p. 6)). Given that Chad has limited natural resources for any colonization

project, the French considered Chad a buffer zone for the security of their colonies in Central and West Africa, such as the Central African Republic and Senegal. By setting control over Chad after defeating a Soudanese slave raider and warlord Rabah Fadlallah in 1900 and pacifying the northern Toubou violence in 1920, the French aimed to prevent any external threats against their central and western colonies, particularly from the British and Germans.[113] Compared to the south, however, controlling the north was very costly for the French since the Muslim Arab and Toubou people were more resistant to Christian French domination due to their religious/Islamic considerations. Nevertheless, Chad became part of *French Equatorial Africa* for security reasons, along with several west and central African countries, such as the Congo, the Central African Republic, and Cameroon. Given that the French interest was limited to security issues, France was reluctant to invest in Chad's administrative and economic development until the 1930s, when they forced the Sara people systematically to cultivate cotton for its increasing world-market value. Essentially, the main problem for the French colonial project was to figure out how they could finance and sustain their colonial administration in a country where there were no natural resources to exploit. As an

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[113] In order to understand what the French's real motives against the British and German colonization in Africa were, the period of "the Scramble for Africa" could provide necessary background information. Full of nationalistic feelings to redress the humiliation of the Franco-Prussian War (1870) and the subsequent Berlin Conference (1884-1885), and in the pursuit of business interests in Africa for raw materials and markets, the French started to seek and acquire colonial territories overseas, just like the British and Germans did at that time. The main battlefield of colonization was Africa, where the British took many parts of East Africa due to its strategic position for international sea routes to India and its potential natural resources. The French, on the other hand, took some parts of West Africa with little natural resources to exploit at that time and some central African states for their strategic positions in the East-West corridor. As a latecomer, the Germans established colonial settlements in some parts of southwestern Africa. Although Azevedo (2005, pp. 47-48) mentions it slightly in his book, for more information regarding the capitalist imperialism-induced scramble for Africa through colonization, one can look at: Rodney. (1982). *How Europe Underdeveloped Africa*. Howard University Press. (pp. 135–145).

endemic crop in the south, cultivating cotton was the answer the French sought. Therefore, seen as a strong but docile race by the French, the Sara people were forced to grow cotton for world markets in the productive southern farms called *le Tchad utile* (useful Chad).[114] In 1928, a private French company, *Cotonfran* (later *Cotonchad*), became the monopoly of producing, processing, and trading cotton, by which the French colonial administration was financed and maintained through its taxation (Azevedo, 2005, pp. 47–52; Coats, 1990, pp. 9596; Collier, 1990, pp. 11–14).[115]

Despite being utilized as slave labor, the Sara people were more prone to collaborate with the French compared to the Arabs and Toubou people. This was mainly based on two interrelated factors: First, remembering the historical atrocities perpetrated by the central and northern slave traders/raiders (the Arabs and the Toubou people of the Kanem-Bornu, Bagurmi, and Quadai Kingdoms) until the beginning of the 21st century, the Sara people considered the French colonization as a security guarantee for their existence (see Thompson & Adloff (1981, p. 6)). The slave trade in Chad was

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[114] Although the French formed their colonial administration by categorizing Chad into two regions as *le Tchad utile* (useful Chad) and *le Tchad inutile* (useless Chad), Chad as a whole was considered an exile region by senior officers or a first post for junior officers. Therefore, many administrative posts were vacant, and Chad's development was modest compared to other colonies in the French West and Equatorial Africa federations. This derogatory French point of view could, in part, explain why Chad was administered by a limited number of inexperienced or exiled military personnel for a long time, causing increased complaints and grievances from each major region/ethnic group throughout the colonial period. For more information about the perspective of the French colonial personnel on Chad, please see: Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (pp. 9–11).

[115] For more information regarding the dependency theory, particularly Andre Gunder Frank's "the development of underdevelopment" arguments, in which the underdevelopment of formerly colonized states is based on their integration into the capitalist world system and embedded exploitative economic relations between core and periphery states, please see: Frank. (1986). The Development of Underdevelopment. In P. F. Klarén & T. J. Bossert (Eds.), *Promise of Development: Theories of Change in Latin America* (pp. 111–123). Routledge. It is important to note that such a perspective does not pay due attention to endogenous factors, such as maladministration, since, from this perspective, mainly exogenous factors explain the underdevelopment of countries.

banned by the French in the early years of the 20th century when they declared Chad as their military territory, though the Arabs in the north continued their slave raids to some extent (Decalo, 1980b, p. 30). Second, collaborating with the French in cotton farming and colonial administration paved the way for the Sara people to a more prestigious status in Chadian society. While the central and northern Muslim population was reluctant and resistant to Western education, economy, and lifestyle due to their *Senussi* religious beliefs brought by the *Awlad Suleiman* tribe from Libya to Chad[116], the animist and Christian Sara people were more open to these opportunities. Therefore, the Sara people became an indispensable part of the French colonial project over time due to their better-qualified human resources for the colonial administration (Thompson & Adloff, 1981, pp. 6–7). In exchange for their offering purportedly better protection of the northern regions against internal and external threats and keeping the north-south trade routes open, the Arabs and the Toubou people, on the other hand, were left free with a minimal French military presence: the traditional chieftains, also known as *Derde*, were responsible for maintaining their traditional warlike and nomadic lifestyle. As a result, while the Sara-dominated productive south was developed by the direct French investment in economy, infrastructure, and education, the Arab and Toubou-dominated arid central and northern regions were left almost intact without any hope of

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[116] In Chad, there are two major Islamic mystic (*Sufi*) orders (*tariqa*): *Senusiyya versus Tijaniyyah*. While the Senussi version of Islam was brought by an Arab tribe, called the Awlad Suleiman, from Libya to Chad in the 20th century, the Tijani version was brought by black Africans converted to Islam from West African countries in the same century. Compared to the Senusiyya, the Tijaniyyah is more moderate in interpreting religious texts and in their relationships with non-Muslims. More importantly, given that the Tijani order is subservient to any temporal authority, the French supported the propagation of it in the colonial period. The Senussi order, on the other hand, was adamant about the French colonial administration. For more information regarding these two Islamic orders, please see: Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (pp. 227-228, 372–373, 380-381).

development. The different preferences of the Sara people and the Muslim population (the Arabs and Toubou) regarding French colonialism can, in part, explain how power has changed hands from the dominant north to the oppressed south over the years, particularly in the post-colonial period (Azevedo, 2005, pp. 54–60; Collier, 1990, p. 12; Thompson & Adloff, 1981, pp. 6–8).

Although the impact of French colonialism on making the Sara people a dominant power in Chad is undeniable from a historical standpoint, the same Sara people were the social group most directly exposed to the French administration's oppression and violence. This is partly because of the French's uneven administration in different parts of Chad. Considering that the northern and central ethnic groups and tribes have nomadic and warrior lifestyles (see Fuchs (1996)), it is unsurprising that the French opted to collaborate with what were perceived to be the more docile Sara people occupying *le Tchad utile* in their colonial project. Although the French investment contributed to the development of the south even further in terms of economy, education, and infrastructure,[117] this development came at the expense of their economic and social well-being. In this regard, the French implemented two crucial policy changes that had significant adverse impacts on the Sara people. First, the French increased head taxes and cotton production quotas as they made agricultural production efficient with increased infrastructure investments. These policy changes were done at the expense of keeping cotton prices below the world market values through Cotonfran's

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[117] For more information regarding the role of French colonialism in Chadian development in terms of economy, education, and infrastructure, please see: Coats. (1990). The Economy. In T. Collelo (Ed.), *Chad: A Country Study* (Second Edition, pp. 87–134). U.S. Government Printing Office.; Cordell. (1990). The Society and Its Environment. In T. Collelo (Ed.), *Chad: A Country Study* (Second Edition, pp. 33–86). U.S. Government Printing Office. (pp. 76–83).

monopoly on cotton production, processing, and trade. Second, the French imposed new but artificial chieftainships on the Sara people, who did not have any social support base but collaborated with the French in collecting taxes and meeting cotton production quotas. These compradors, on the other hand, considered this collaboration as an opportunity to build their personal wealth by increasing head taxes and cotton production quotas even further. Although the traditional chieftains in the south did not have the same authority as northern chieftains, they nevertheless had a social attachment with their own ethnic groups. The new chieftains, however, did not even have this linkage other than their increasingly predatory and oppressive behaviors (see Collier (1990, p. 13)). In sum, all these developments led to growing discontent among the Sara people and, thus, a unique sense of Sara ethnic identity (see Lemarchand (1980)). The Arabs and the Toubou people in the central and northern regions, on the other hand, were left on their own, limited by occasional and short-term French military interventions as long as their traditional chieftains were able to maintain peace and keep trade open (Azevedo, 2005, pp. 48–49, 52–60; Collier, 1990, pp. 12–13; Thompson & Adloff, 1981, pp. 8–11, 14–22).

4.2.3 Decolonization Period

In the 1940s, important developments took place in the political structure of Chad, which would affect its political trajectory in the post-colonial period. Rather than being of domestic origin, these developments were more related to the political fragmentation of France during World War II. After the occupation of France by Nazi Germany in 1940, France was fractured between the Vichy government, which collaborated with the Nazis, and a government-in-exile led by General Charles de Gaulle in London, defending a “Free France” against the Nazi occupation. As a

lieutenant governor of the *French Equatorial Africa Federation* (AEF), Félix Éboué supported de Gaulle's exile government and sent military troops against the Nazi occupation in North Africa.[118] This political and military support for de Gaulle engendered closer relations between Chad and France, particularly after World War II. With a new constitution in 1946, for instance, the French colonies in West and Equatorial Africa federations were recognized as overseas territories of France; thus, African people under these territories were given citizenship status. Furthermore, African people were given the right to establish territorial assemblies and select representatives to parliamentary bodies of France.[119] It is important to note that the real power was still in the hands of France, and the colonies were still administered by French personnel until the 1950s. In brief, more funds and public attention was given to Chad by the French political elites due to their role in de Gaulle's success. Nevertheless, the ideas of Félix Éboué, such as giving more power to African leaders in government and employing more African professionals in cities, were found nationalistic by the French. Given that Éboué was a mulatto and had African origins, it is understandable why he emphasized Africanization more than the French (Collier, 1990, p. 14; Thompson & Adloff, 1981, pp. 11–12).

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[118] It is important to note that only the Sara people responded to the request for help but the northern ethnic groups shy away from supporting de Gaulle politically and militarily due to religious considerations (Nolutshungu, 1996, p. 31).

[119] These developments that occurred during and after World War II deserve special attention since they were in sharp contrast with the French colonial policies in the pre-World War II period. As Azevedo (2005, pp. 53-54) points out, the French aimed to assimilate African people gradually and selectively in the post-World War I period. As long as African people welcomed the French culture and abandoned their authentic traditions, they were treated as equal French citizens. The ones who refused to be assimilated by the French culture were treated as slave labor without any rights and protections. But with a new constitution in 1946, all African people under French colonies started to be considered French citizens and thus treated fairly and equally.

Interestingly, the first ethnic conflict occurred between the Sara and Hadjarey people in Forth Lamy (later N'Djamena) in 1946 when the French reorganized the political structure of Chad with a new constitution in order to make it more representative and democratic. In the following year, the conflict spread to the southern cities, but this time between the followers of Chad's two major political parties: *Parti Progressiste Tchadien* (PPT, Chadian Progressive Party) and *Union Démocratique Tchadienne* (UDT, Chadian Democratic Union). These early conflicts were an indication of three major mistakes of the French administration in the post-World War II period. First, as a return for helping de Gaulle during World War II, the French were hasty in the political modernization of Chadians. Second, the French did this without considering the balanced representation of ethnic groups in their colonial administration. More clearly, at the expense of the Arabs and Toubou people, the Sara people were much more supported by the colonial administration due to their better human resources. Last but not least, the French insisted on the political and territorial integrity of Chad without considering other options, namely federalism based on ethnicity, religion, or region. From a historical standpoint, it is obvious that "[i]f there has always existed an *espace tchadien* [Chad area], it was a space with no political center and no realistic prospect of political unification" (Nolutshungu, 1996, p. 27). The idea of having a unitary state structure, however, would be a common ground even shared by fierce rival warlords, such as Goukouni and Habré, since the onset of the rebellion (see Kelley (2018, Chapter 1)).

Like in many parts of the developing world, decolonization increased colonized people's political consciousness and demands. Despite these social developments, most of the political parties emerged as a result of changes in the French constitution rather

than the political activity of authentic people. In other words, the emerging political parties were similar to "local offshoots of French (metropolitan) political parties" (Nolutshungu, 1996, p. 31). In this regard, two major political parties (UDT and PPT), who represented progressive and conservative Chadian social groups, respectively, mostly determined the political trajectory of Chad in the decolonization process. The UDT, in particular, was established by the French, aiming to dominate Chadian politics by mobilizing the traditional northern leaders against the southern elites' increasingly radical demands. For instance, the UDT had close connections with de Gaulle's conservative party, *Rassemblement du Peuple Français* (Rally of the French People, RPF), and dominated Chadian politics until the mid-1950s by changing the playing field in favor of the UDT through oppressing the emerging southern elites. The PPT, on the other hand, was established by an African-descent French colonial administrator, Gabriel Lisette, whose goals represented both African nationalism and the radical left in the Gaullist milieu. Similar to the UDT, the PPT also had close connections with another French metropolitan political party, the *Union Démocratique et Socialiste de la Résistance* (UDSR, Democratic and Socialist Union of the Resistance), and was a local branch of the *Rassemblement Démocratique Africain* (RDA, African Democratic Assembly). While the UDT was a conservative cadre party consisting of the French colonial administrators and the traditional northern chieftains, the PPT was a progressive mass party of mostly southern Sara people. Essentially, the traditional northern elites felt compelled to collaborate with the French administration in order to maintain their historically dominant position in Chadian politics since their qualifications and human resources were underdeveloped compared to the South due to their rejection of French assimilation for religious considerations. In the meantime, the

emerging political elites in the South were becoming increasingly hostile to the traditional northern chieftains due to decolonization-induced radical nationalism. Considering that the South had become increasingly hostile to the North and assertive in Chadian politics due to their well-qualified human resources, the Northern political elites had to choose the best among the worst to maintain their dominance: François (later N'Garta) Tombalbaye. Compared to Gabriel Lisette, who became the first prime minister of Chad in 1958 but was purged by his own party soon after, Tombalbaye was seen as more moderate by the French and northern Muslim elites because of his political, economic, and social thoughts (Azevedo, 2005, pp. 60–61; Collier, 1990, p. 15; Nolutshungu, 1996, pp. 31–37; Thompson & Adloff, 1981, pp. 10–14).

It is worth highlighting that since the adoption of the first constitution in 1946, "Chad's parties were ephemeral, poorly organized, and representative of no specific region, ideology, or ethnic-religious groups" (Thompson & Adloff, 1981, p. 12). For instance, Ahmad Koulamallah, who was another northern Muslim figure following the trajectory of Islamic politics in Egypt and Sudan, was playing an annoying role against the northern elites' interests. His thoughts were much more similar to Lisette's progressive/socialist PPT, but with more Islamic connotations. Similarly, with the electoral reforms in 1956 and the subsequent new constitutional referendum in 1958, the French paved the way for the ascendancy of the PPT and Gabriel Lisette to power in Chadian politics. Because of not having an authentic African origin, however, Lisette was purged by his party's secretary-general, François Tombalbaye, when he was abroad. These two striking instances point out that "[r]egionalism was a strategy for the defense of privilege and position or, for each party, an attempt to exclude rivals, rather than a faithful expression of the anxieties and aspirations of ordinary people" (Nolutshungu,

1996, p. 35; see also Collier (1990, pp.15-16)). Such a fragmented political structure could be explained by factors at three levels: (i) personal, (ii) regional, and (iii) national. At the personal level, there was personal animosity and power struggles between political leaders, even if they were from the same ethnicity, religion, region, or party. At the regional level, the two major regions were staunchly opposed to each other but not able to have complete control over the other. Last, at the national level, there was a radical nationalistic trend in politics in which non-authentic African political figures were not seen as true leaders (see Thompson & Adloff (1981, pp. 13–14); Nolutshungu (1996, pp. 33–37); Decalo (1997, pp. 10–12)). These factors could, to some extent, explain how Chadian politics had become much more fragmented, even at the party level, from the first constitution in 1946 to the demise of Tombalbaye in 1975.

4.3 Tombalbaye Era (1960-1975)

In line with the background information above, it was unsurprising that the southern animist and Christian Sara people, who were historically oppressed by the northern Muslim groups, rose to power by embracing the opportunities offered by French colonial rule. In order to regain their dominance in Chadian politics, the northern Muslim groups, on the other hand, first tried to develop close relationships with the French metropolitan elites through the UDT. But soon after they realized the ascendancy of the Sara people led by the PPT and party leader Gabriel Lisette, they opted to support François Tombalbaye, who, as noted above, was seen as a moderate Sara. Far from being moderate, however, the Tombalbaye regime gradually evolved into a discriminatory and oppressive regime against the Arabs and the Toubou people, leading to the first Chadian Civil War (1965-1979). As Azevedo (2005, p. 64) succinctly puts it, “most of the Sara who inherited the colonial state saw the handover of power as a day

of reckoning enabling them to settle past scores and grievances." In brief, Chad witnessed the decline of the Muslim North's historically dominant position against the Sara people of the South. The North was not able to control the central authority as happened in the past, and they lost their lucrative position in regional trade and slave trade. The South, however, started to gain more prestigious status and political power in Chadian society due to being appointed to administrative positions by the French and better wealth accumulation/economic development through cotton cultivation. All these factors contributed to the onset of a protracted civil war by the North to restore its historically dominant position at the expense of the South.

4.3.1 Independence, Political Consolidation & Early Riots

When Chad became independent in 1960, neither the southern nor northern political elites had a clear vision of Chad's future. Furthermore, they did not have enough experience in government administration. This is partly because the French were only interested in good administration rather than having state- and nation-making projects there; thus, they generally opted to administer Chad with French junior military officers. The Sara people took advantage of the educational, economic, and political opportunities offered by the French, and thus they came to better positions in the French administration. The North, in turn, started to feel insecure due to the gradual ascendancy of the South to power, which was seen as a vital threat to their historically dominant position in Chadian politics. The Chadian elites, nevertheless, took the segregation between the North *versus* the South as given, and Chadian politics became a kind of tug-of-war between these two regions since the independence (Nolutshungu, 1996, p. 35).

In addition to these social and administrative problems, Chad was historically an underdeveloped country, continuing during and after the independence. As Decalo (1997, p. 10) points out, "60 years of French rule left behind hardly any paved roads, only a very rudimentary modern economy." The whole Chadian economy, for instance, was built on cotton farming, processing, and exporting through Cotonfran (later Cottonchad) and relied on foreign aid and loans, particularly from France (see Coats (1990)). The *Forces Armées Tchadiennes* (FAT, Chadian Armed Forces), on the other hand, consisted of just 400 hundred soldiers (mostly Sara) without any sophisticated equipment when Chad became independent (see Tartter (1990)). Under such circumstances where state institutions were absent or very weak, Chad became independent from French colonial rule under Tombalbaye, the first president of Chad who took power from the PPT's leader Gabriel Lisette by a "coups d'etat by telegram"[120] (Thompson & Adloff, 1981, p. 23). In order to keep Chad's territorial integrity and maintain internal peace with French military help, nevertheless, Tombalbaye signed a military deal with the French in which France would keep its presence in Forth-Lamy (later N'Djamena) and BET until 1965 (Rondos, 1983, p. 3).

Despite being the first civilian rule of independent Chad (1960-1975), the Tombalbaye regime gradually became more oppressive and discriminatory, contrary to the North's expectations. As "one man in ruthless pursuit of personal power,"

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[120] Sending a telegram to Gabriel Lisette indicating that he was no longer a Chadian citizen and thus barred from entering Chad again while traveling abroad (Israel) was the first step of secretary-general Tombalbaye to get rid of the strong figures within his own party, the PTT (Collier, 1990, p. 18). These measures sparked anger against Tombalbaye in the Logone region, where most of the Lisette supporters resided. Tombalbaye, in turn, arrested the leaders of the demonstrations and divided the region into three separate prefectures (see Kelley (2018, Chapter 1)). These and his ensuing steps paved the way for Tombalbaye's presidency and his one-man rule in Chad.

Tombalbaye consolidated his brutal and paranoiac power grab indiscriminately in consecutive steps, which eventually led to his demise by the army in 1975 (Thompson & Adloff, 1981, p. 23; see also Kelley (2018, Chapter 1); Collier (2005, pp. 17-19)). After eliminating Lisette and other dissidents in the PPT "under the claim of preventing divisions along religious and ethnic lines in order to preserve the 'soul' of the nation," he banned all parties from the Chadian political arena except his own party, the PPT, and forced the National Assembly to adopt the presidential system (Azevedo, 2005, p. 65). Besides his power consolidation through a *de facto* single-party rule by 1962, Tombalbaye perpetuated the French administration policy, which was basically the appointment of the Sara people to the bureaucracy while excluding the central and northern Muslim groups from the government. His aggressive power grab and the discriminatory policy in bureaucratic appointments (*Africanization*) alienated his supporters and disappointed the non-Sara groups. As a result, for the first time in 1963, Tombalbaye faced a riot in the capital city, where central and northern people were complaining about the Sara officials because of their oppressive ways of collecting heavy taxes. Tombalbaye, however, read these demonstrations and riots as "a plot to exploit ethnic and religious antipathies by northern Muslims having close ties with fellow Arabs in Sudan and Egypt" (Thompson & Adloff, 1981, p. 24).

It is important to note that the 1963 riots had a particular political weight for all politicians, be they from the North or South. As the distinction between northerners *versus* southerners became more prominent after 1963, politicians started to use these historical events with their psychological connotations to mobilize the society behind their own political views (Kelley, 2018, Chapter 1; see also Kaufman (2001; 2015)). Despite taking drastic actions against the activists and politicians involved in these

demonstrations and riots by declaring a state of emergency and changing the constitution for a single-party presidential rule in 1964, Tombalbaye faced another riot in 1965: the *Mangalmé Rebellion* in the Guéra prefecture, also known as the *Mubi Uprising*. Similar to the 1963 riots in N'Djamena, the Mangalmé Rebellion sparked mainly for two reasons and gradually spread to the northern regions, where excluded Muslim groups (the Arabs and Toubou people) reside. First, appointed Sara officials were not well-qualified and experienced bureaucrats and displayed disrespectful behavior towards the local people and Islamic culture. The local Muslim population, for instance, was fined for wearing beards and turbans, which were seen as traditional Islamic symbols. Such appointments and behaviors further alienated the already marginalized central and northern Muslim groups against the regime.[121] Second, Tombalbaye implemented a new surtax on personal incomes and cattle, which eventually tripled the existing tax burden, particularly on non-Sara people. Given that animal husbandry and pasturage were the main occupations and livelihood of the central and northern Muslim groups, who live in arid and semi-arid lands of Chad, it was interpreted by these groups that imposing a surtax was a policy choice to punish them. Nevertheless, the Tombalbaye regime tried to justify this policy on the grounds that "the surtax [was] a 'loan' to the government to finance necessary projects in the area" (Azevedo, 2005, p. 65). As he did in the face of the 1963 riots, Tombalbaye saw this

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[121] In 1966, known as the *Bardaï Incident*, a dance between local people and Sara military officials resulted in an altercation, and one Sara soldier died. Instead of easing the tension, the Tombalbaye regime punished the whole local community without differentiating children and women. Furthermore, many Toubou people (approximately 1000), headed by their traditional leader *Derde*, migrated to Libya as Tombalbaye stripped Derde's traditional powers and refused to appoint his son to the vacant position. Derde's son, Goukouni Queddei, would be one of the founding leaders of FROLINAT in the future. With this policy, however, Tombalbaye was able to reduce Derde's influence in the BET prefecture (see Azevedo (2005, p. 66); Collier (2005, p. 19); Thompson & Adloff (1981, p.54)).

rebellion as an opportunity for the further consolidation of his personal power and thus focused on eliminating rivals from the political arena rather than finding the root causes of intermittent rebellions (see Kelley (2018, Chapter 1)).

Although external powers, particularly Libya, played a prominent role in the later years of the Chadian Civil War, it is worth highlighting that the early revolts were the result of Tombalbaye's maladministration. During his administration, Tombalbaye primarily focused on seizing power while alienating his adherents in the South and non-Sara Muslim groups in the central and northern regions. Narrowed the field of democratic politics in favor of his personal rule since the independence, Tombalbaye did not leave any peaceful option to dissenting voices other than resorting to organized violence. Given the Sara officials' administrative abuse and cultural humiliation and the regime's discriminatory tax policies, the Arabs in Ouaddaï and the Toubou people in BET prefecture considered the increasing Sara ascendancy a vital threat to their survival. Therefore, in 1966, non-Sara Muslim groups from the central-eastern (Ouaddaï) and northern (Tibesti) regions laid the foundation of FROLINAT, an insurgent group that had been dealing with its internal divisions from its founding until its downfall in 1993 (Kelley, 2018, Chapter 1; Azevedo, 2005, p. 66; Decalo, 1997, pp. 14-15).

Another enabling factor that was effective in the establishment of FROLINAT was the French, who withdrew their military support from the capital city and BET prefecture. Aware that the FAT was militarily inadequate when declaring Chad's independence, Tombalbaye made a military agreement with France in order to ensure Chad's territorial integrity with French military support. Focusing on consolidating his personal power after independence, however, the Tombalbaye regime became much

more nationalistic and anti-neocolonial during the postindependence period. With the *Africanization* policy, for instance, Tombalbaye appointed inexperienced African-origin bureaucrats to administrative positions as the French left their roles. For many non-Sara groups, however, the Africanization policy was essentially seen as *Southernization* policy as mostly Sara people were hired by the government (see Collier (1990, pp. 17–19)). As Thompson and Adloff (1981, p. 25) highlight, Tombalbaye's primary goal was to rule Chad with "a wholly free hand." In fact, such nationalistic policies were not unique to Chad; rather, many African countries followed the same trajectory after decolonization. The President of Zaire, Mobutu Sese Seko, for instance, was the leader Tombalbaye took as a role model in his nationalistic policies. Aiming to respond to the increasing nationalist demands in the country and the continent, and thus to establish closer relations with Arab and African neighboring countries, Tombalbaye wanted the French to end its military presence in 1965 (Thompson & Adloff, 1981, pp. 24-25, 44).

4.3.2 Formation of FROLINAT & Spread of Civil War

When FROLINAT was established in 1966, the conditions were very favorable for its rise, though it had never been a unified insurgent group. Chadian society was still struggling with grave social and economic problems, namely ethnic tensions, the legacy of French colonial rule, a poor economy, and an underdeveloped infrastructure. Furthermore, the first civil authority had become more authoritarian in its administration but weak in controlling the country after the French military withdrawal. Besides silencing dissident voices, the Tombalbaye regime alienated even its adherents by implementing radical nationalist policies. While Tombalbaye took oppressive steps to feel secure, the society's trust in the state was becoming increasingly eroded. Under

these conditions, in Sudan's Nyala city, FROLINAT was formed as an umbrella insurgent group by two major dissident groups, which were originally splinter groups of Ahmad Koulamallah's *Mouvement Socialiste Africain* (MSA, African Socialist Party). The *Front de Liberation du Tchad* (FLT, Liberation Front of Chad) led by Ahmed Hassan Moussa, and the socialist *Union Nationale Tchadienne* (UNT, Chadian National Union) led by Ibrahim Abatcha united under the banner of FROLINAT. Ibrahim Abatcha was elected the group's leader. Except for their opposition to the Tombalbaye regime, these dissident groups were diverse in their forms, incentives, and activities. For instance, the FLT aimed to restore the Muslim way of life by creating an Islamic state in Chad and was supported by the Muslim Brotherhood in Egypt and Sudan. The UNT, on the other hand, carried more Marxist connotations in its goals and tended to use less violence than the FLT. Soon after realizing in Nyala that the UNT and its leader Abatcha aimed to dominate the FROLINAT through Marxist ideas, Moussa and his group FLT withdrew their support.[122] After this early split, the UNT and its leadership cadre, namely Ibrahim Abatcha and Abba Siddick, would determine the trajectory of the FROLINAT (Thompson & Adloff, 1981, p. 50; Decalo, 1997, p. 192; see also Kelley (2018, Chapter 1).[123]

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[122] At that time, when the Nyala conference was held, Ahmed Hassan Moussa was imprisoned by the Khartoum government. For Moussa, the coincidence between her detention and the conference time was a strategy of Ibrahim Abatcha, who was fearful of Moussa's much more numerous FLT group against his domination of the FROLINAT. Therefore, Moussa decided to withdraw his support for the FROLINAT in order to maintain the FLT's armed opposition against the Tombalbaye regime from Sudan single-handedly. This was an early indication that the FROLINAT would be an insurgent organization full of leadership struggles (see Thompson & Adloff (1981, pp. 51-52); Decalo (1997, pp. 191-192)).

[123] Although there is scattered information about the FROLINAT in the sources I have examined, the book of Thompson and Adloff (1981) is one of the best in terms of its detailed information on the FROLINAT and its factions for the civil war period I focus on. Please see: Thompson., & Adloff. (1981). *Conflict in Chad*. University of California, Berkeley. (Chapter 3).

Rather than being an armed insurgent group, the UNT was originally a protest movement against the Tombalbaye regime, in which mainly intellectuals played a dominant role. More importantly, this leader cadre was diverse in many respects. For instance, Ibrahim Abatcha attended Koranic schools, excelled in guerilla warfare, and met with socialist ideas in communist countries abroad, whereas Abba Siddick received higher medical education in the West and operated abroad in general. After the implementation of a *de facto* single-party rule in 1962, the UNT's prominent figures were exiled. During that time, the first leader of the FROLINAT, Abatcha, was educated in guerilla warfare in North Korea and met with socialist doctrines. After returning to Sudan in 1965, Abatcha and his North Korea-trained fellows[124] laid the groundwork for a conference in Nyala in 1966, where the UNT and FLT were united under the banner of the FROLINAT. Despite the adoption of guerilla warfare, those who were more traditionalist Muslims, such as Ahmed Hassan Moussa, were against the socialist ideas of Abatcha. Nevertheless, this core cadre of FROLINAT was united to protect as well as promote Islam and Arabic culture in Chad (Thompson & Adloff, 1981, pp. 51–52).

From its foundation until 1993, the FROLINAT was fragmented due to leadership struggles and administrative problems. Though the charter pointed out the role of the secretariat and politburo in managing the movement, foreign sectors were much more influential. More importantly, Ibrahim Abatcha was the unquestionable leader of the Front due to his military experience in guerilla warfare until he was killed

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[124] First, Abatcha went to Sudan, where he made some networks in Ghana and Cameroon to attend conferences organized by communist groups in the Third World. After recruiting university students from Khartoum, Tripoli, Cairo, and Algiers, Abatcha went to North Korea to get a six-month education in political and military warfare along with his six followers. When he came back to Sudan, some of his North Korean trained fellows, particularly Abdel Hadj Issaka, helped him to organize the FROLINAT (see Thompson & Adloff (1981, p. 51-53); Decalo (1997, pp. 192-193)).

by the Tombalabaye government in 1968. In the first two years of the Front, Abatcha and his North Korea-trained fellows recruited the young attending Koranic schools in the villages of east-central Chad. In the camps, they were indoctrinated and trained in guerilla warfare in line with the FROLINAT's initial aims: undermining Chad's already weak economy by burning the cotton farms and cutting lines of communication. It is worth highlighting that military training was poor in terms of equipment and that the indoctrination aimed to radicalize the Arab peasantry in east-central Chad. In Mangalmé city of the Guéra prefecture in 1965, for instance, unarmed peasants rioted against government Sara officials due to collecting high taxes, and, in turn, the government responded in a repressive way. Given the efforts of Abatcha and his North Korea-trained fellows in eastcentral villages of Chad, the riot unsurprisingly spread to eastern regions, where Muslims having close relations with Sudan resided. As the Mangalmé Rebellion grew and spread to other regions, the Tombalbaye regime took more military measures to repress the rebellion. In this vicious cycle, the rebellion got more intensified rather than calming down. In the third year of the rebellion (1968), however, the leader of the FROLINAT, Ibrahim Abatcha, was killed by the government forces in order to disrupt the Front's administrative structure and thus control the rebellion to some extent (Thompson & Adloff, 1981, pp. 53–54; see also Kelley (2018, Chapter 1)).

As is clear, the Mangalmé Rebellion was effective in central and eastern Chad, where Abatcha operated. It was not a coincidence that Abatcha was killed by the government forces in 1968 when the Tombalbaye regime was losing its control of the rebellion. Even though the rebellion's initial phase was contained in the central region, it gradually spread to eastern regions and finally to the BET prefecture in the north.

After the arrival of Mahamat Ali Taher from the South to Tibesti,[125] the North became the new center of the rebellion. Until the end of the 1960s, the interaction between the central FROLINAT and the northern Toubou rebel groups was very limited due to poor communication lines and the Sahara's harsh terrain. Starting in 1969, however, this communication gap was resolved by sending some of the central FROLINAT's cadres to the northern regions, particularly to Tibesti, where the Derde resides. Although the Derde was seen as the victor of the Toubou rebellion in the north, this success belonged to the central FROLINAT, particularly Mahamat Ali Taher and his aides, to a large extent. Similar to Abatcha's role in eastern-central Chad, Taher played an influential role in organizing the Toubou rebellion in the north. More importantly, Taher was the architect of forming the FROLINAT's two separate military wings. As a chairman of a conference held in BET, Taher assigned Goukouni Queddei as the secretary of the interior. Later on, Goukouni became the leader of *la Deuxième Armée de Libération* (Second Liberation Army), mainly a collective name of the northern insurgent groups. In ensuing years, the central FROLINAT took the name of *la Première Armée de Libération* (First Liberation Army), headed by Abba Siddik (Thompson & Adloff, 1981, pp. 55-56; Decalo, 1997, p. 193; see also Kelley (2018, Chapter 1)).

After the death of Ibrahim Abatcha by the government forces, the central FROLINAT started to struggle with leadership competitions. The French military intervention at the request of Tombalbaye in 1968 was a major catalyst for the

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[125] Mahamat Ali Taher was an anti-Tombalbaye Teda Toubou who was sent by the central FROLINAT to organize the Toubou rebellion in the BET prefecture in 1968. After forming the *Toubou Nomad Guards* in Aozou against the government forces, Taher was successful in forcing the Tombalbaye regime to withdraw from BET gradually. By the year 1969, the central authority totally lost its control over the BET prefecture (see Thompson & Adloff (1981, p. 55-56); Decalo (1997, p. 193)).

unification of one of the FROLINAT's military wings, the Second Liberation Army, consisting of many rival rebel factions. In the face of effective French military intervention, the eastern-central rebel factions had to unite in order to maintain the *status quo* in the areas they controlled, though they were not as successful as the northern wing. Parallel to these developments on the battlefield, the central FROLINAT, or the First Liberation Army, was witnessing the leadership struggle around Abba Siddik, who had no followers in the Chadian society and no field experience other than his intellectual background. Siddik was a medical doctor who studied in France. Besides his intellectual background, he also served as an education minister before Tombalbaye came to power. Despite his opposition to the Tombalbaye regime, Siddik had not contacted FROLINAT until 1967, the year before the Mangalmé Rebellion. Nevertheless, "[b]ecause of his superior education, intelligence, and numerous contacts with influential persons and groups abroad, Siddik moved rapidly to the forefront of the FROLINAT" (Thompson & Adloff, 1981, p. 58). Unlike the core tenets of the FROLINAT laid out in the Nyala Conference, Siddik had a vision of a secular welfare state for Chad. Such a vision was accepted by neither the FROLINAT's religious nor socialist groups. By accidentally or deliberately eliminating these dissident voices and potential leaders who were Abatcha's comrades-in-arms, such as Aboubaker Djalabo Othman and Mohammed El Baghalani, Siddik was able to become the new leading figure of the central FROLINAT in the late 1960s. The Second Liberation Army, however, did not support the leadership position of Siddik, who was accused of aiming to establish a secular socialist state in Chad (Thompson & Adloff, 1981, pp. 59–60). Hence, in the early 1970s, the First and Second Liberation Armies were completely separated from each other, in which Siddik was only concerned with keeping the supply

lines from Sudan and Libya open for the rebellion's continuation (Thompson & Adloff, 1981, pp. 5660, 63-65; Decalo, 1997, pp. 192-194; see also Kelley (2018, Chapter 1)).[126]

4.3.3 French Intervention, Sahel Drought & Crumbling Regime

In the late 1960s, the central authority totally lost control over BET and was seeking French military and financial help. Despite devoting a third of the national budget to the army by enlarging the army from 400 men in 1960 to 3,800 men by 1971 in order to contain the civil war and reverse his declining popularity, Tombalbaye was still far from having a strong military to ensure security throughout the country (Burr & Collins, 1999, p. 51; Tartter, 1990, pp. 175–177). Mainly used for anti-guerilla campaigns in the north, for instance, the air force did not have any fighter jets or jet-qualified pilots other than its name and a few propellers (Tartter, 1990, pp. 186–187). This situation was also related to the fact that Chad's fragile agricultural economy was limited in meeting the requirements of a strong military, such as affording and maintaining military equipment, which required a certain degree of economic capacity (see Klomp (2022)). The same years were also the times when Chad started to experience the Sahel drought's devastating impacts on its economy and Tombalbaye's increasingly nationalist policies, such as *Authenticité*/*Chaditute* (Africanization) and the

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[126] Basically, the FROLINAT has two major military wings: (i) the First Liberation Army, led by first Abatcha and then Siddik, and (ii) the Second Liberation Army, also known as FAN, led by first Taher and then the Goukouni-Habré team. In addition to these two major military factions, there were also two minor military wings with little influence and military might on the ground, along with several splinter groups: (iii) the Volcano Army and (iv) the Third Liberation Army. Since the last two minor groups do not play a significant role in the course of the civil war period that I focus on, they are not examined in detail here. For more information regarding these four groups, please see: Decalo. (1997). *Historical Dictionary of Chad* (Third Edition). Scarecrow Press. (p. 179, 182, 412, 440).

yondo manhood initiation rites. Furthermore, the relations with Libya started deteriorating when Muammar Gaddafi supported the FROLINAT as the sole legitimate representative of Chadian society after an allegedly Libyan-supported abortive coup against the Tombalbaye regime in 1971.

In almost every decolonized African country after World War II, political leaders tended to pursue more nationalist policies, and the Tombalbaye regime was not an exception. In order to further expand its social base within this political atmosphere, Tombalbaye took an anti-foreign attitude in his political decisions. Although there was a defense agreement with France since the independence, he wanted the French to leave the country in 1965 within the framework of these nationalist policies. In the same years, the spread of the Mangalmé Rebellion to the northern regions and the subsequent establishment of FROLINAT would push the Tombalbaye regime to reconsider the French military intervention. In 1968, the regime was losing ground against the FROLINAT, particularly in the BET prefecture. With Taher's organizational ability and the support of the eastern-central FROLINAT, the northern Toubou rebellion was gaining strength against the government forces, and the new headquarter of the rebellion was shifting to the BET prefecture, where the Goukouni-Habré team led the Second Liberation Army. Abba Siddik and his First Liberation Army were becoming marginalized within the FROLINAT, though Siddik was the official leader of the Front. Although the regime forces were able to contain the rebellion in eastern-central Chad, the Toubou rebellion in the north became out of control in 1969. The already weak Chadian army desperately needed foreign support in the face of the stronger rebel forces and increasingly spreading rebellion. Therefore, in 1968, de Gaulle conditionally accepted the request of Tombalbaye for French military intervention (Azevedo, 2005,

pp. 66-67; Decalo, 1997, pp. 166-168, 193; see also Thompson & Adloff (1981, Chapter 3) & Kelley (2018, Chapter 1)).

In 1969, the first French military intervention came at the expense of Tombalbaye's increasingly nationalist stance, thus leading to a short-lived liberalization period. Mainly for ideological reasons, French President de Gaulle authorized the military and financial help to contain the northern Toubou rebellion but conditional on Tombalbaye's acceptance of a French administrative reform mission: *Mission de Réforme Administrative* (MRA) headed by Pierre Lami, and later Henri Paillard. Seen as a new apparatus of French neo-colonialism by the regime, the MRA first proposed a genuine reform packet on the local administration, in which traditional northern elites/chieftains were given their former status to a certain extent. In the face of increasing complaints and bureaucratic obstacles from the Tombalbaye regime, the MRA later focused on hiring experts for bureaucratic positions by cutting expenditures as much as possible. Given the limited duration of the MRA and the French guarantee for its expenses, Tombalbaye used the mission and French aid to contain the rebellion in the north and thus consolidate his personal power even further (Thompson & Adloff, 1981, pp. 39-43; see also Nolutshungu, 1996, Chapter 2). From 1969 to their withdrawal in 1971, the French provided the opportunity Tombalbaye needed to reconsolidate his weakening social base and personal power through so-called *national reconciliation* policies, such as amnesty for imprisoned dissidents. It is important to note that whenever Tombalbaye felt that his power was weakening, he aimed to eliminate his opponents with a brief policy of reconciliation followed by repressive measures. Between 1969 and 1971, when there was a French military intervention, Tombalbaye followed a similar path: "his policy was to eliminate all opponents by mass arrests, following which

he would gradually amnesty certain prisoners, and then either take them into his cabinet or name them to embassies abroad" (Thompson & Adloff, 1981, p. 39). More importantly, despite the decreasing social support of Tombalbaye, the French were ironically insistent on the regime. This was mainly because of French interests in Central Africa. The French feared that Tombalbaye's fall from power could generate adverse impacts on the leaders of francophone African countries. Therefore, instead of suppressing the northern Toubou rebellion in the BET prefecture, the short French military intervention only aimed to contain the rebellion for the reinstallation of the administration there (Thompson & Adloff, 1981, p. 40; Nolutshungu, 1996, pp. 65-74).

Among these developments, Chad was also grappling with the devastating impacts of the Sahel drought (1968-1976) on Chad's fragile agricultural economy and political trajectory. Although Chadian society was used to frequently occurring droughts, the Sahel drought was one of the most devastating ones up to that time.[127] As an indication of its severity, the Sahel drought caused roughly a 30% reduction in the size of Lake Chad and many famine-related deaths. Just in 1973, for instance, the drought-caused famine killed 100,000 people, left 7 million people dependent on international emergency aid, and perished almost 5 million cattle in the Sahelian region of Africa (Wade, 1974, pp. 234-235; Sen, 1981, p. 1981).[128] Affecting 60% of Chadian territory, the Sahel drought caused the death of over 20% of the country's livestock and a massive amount of crop failures, leading to mass starvation (Decalo, 1997, pp. 166–

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[127] A drought similar in effect was experienced in the 1980s following the Sahel drought. Compared to the Sahel drought, the second one also affected the productive Soudanian region in the south (see Decalo (1997, p. 168)).

[128] Besides Chad, the other six countries mostly affected by the Sahel drought were Gambia, Upper Volta, Mali, Mauritania, Niger, and Senegal.

167, 176). Just in 1974, for instance, nearly 200,000 people were thought to be at risk of starvation (see FBIS Record (1974m)). Thus, many people, along with their livestock, left the Sahara and Sahelian regions and migrated to the productive south[129], where nearly 10% of their livestock perished due to tsetse flies -most of the rest were sold to Nigeria below their economic value. Eight years were required for Chad's economy to return to its vitality and for its livestock to regain its former state. Considering that animal husbandry was one of Chad's most important income sources after cotton cultivation (see Coats (1990)), the overall picture of how devastating the drought was becomes much clearer (see Decalo (1997, pp. 166-168); Thompson & Adloff (1981, p. 16, 21)). Given these devastating effects of the Sahel drought, the Tombalbaye regime became much weaker in providing social services and security, and many people migrated to the South and/or East for economic reasons -some joined rebel groups, further exacerbating the ongoing civil war.[130]

Between 1968 and 1976, particularly in 1974, when the drought was most severe, two developments in Chad were noteworthy. First, in addition to the drought-induced decline in agricultural production, the available seeds stored for cultivation were used for food instead (Decalo, 1997, p. 167). The food output per head, for instance, decreased almost 30% during the civil war (Sen, 1981, p. 117). More

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[129] Five years after the civil war onset (1970), the total number of migrants was thought to be over 1,136,000 people. It is important to note this figure includes both internal and external migration flows. Furthermore, the figure is an official estimate; thus, the actual number is probably higher that than (see Decalo (1997, pp. 369-370)).

[130] Although some (e.g., Burr & Collins (1999), Tartter (1990)) argue that drought-stricken people participated in bandit groups for economic reasons, they did not even share an approximate figure about how many people became bandits. The only exception in my academic sources was Azevedo (2005, p. 69), who claims that there were 3000 guerillas in the first Chadian Civil War but still he avoids giving numbers of bandit groups. This is mostly due to the difficulties in obtaining reliable figures in Chad at that time.

importantly, the Tombalbaye regime launched an ambitious agriculture program in 1974: *Operation Agriculture/Cotton*, also known as *Green Revolution*. According to this program, the Tombalbaye regime aimed to harvest 750,000 tons of cotton in 500,000 hectares during the 1974-1975 harvest season with the help of so-called volunteer labor. To this end, 1.5 million people were mobilized to work on cotton farms in the south in order to reach 600% more cotton production by the end of 1974 than the previous year (Azevedo, 2005, p. 68). By launching this program, Tombalbaye declared that Chad would be a self-reliant agricultural country in order to reach its socialist aims despite having oil reserves in the southern Logone region (FBIS Record, 1974i, 1974a, 1974j). In fact, the operation's ultimate aim was to "increase revenues for both intensifying the fighting in the north and funding some oil prospecting in the south" (Azam & Djimtoingar, 2004, p. 10). Despite this ambitious goal, the program was cut short due to the military coup in 1975, and thus, the total cotton seed production in the 1974/1975 harvest season was far from its initial goal: 143,640 tons (Decalo, 1997, pp. 134-136; Azevedo, 2005, p. 68).[131] Furthermore, over time, fluctuations/decreases in world market cotton prices, drought-related famines, and civil war-caused internal migration forced people to incline toward subsistence agriculture or participate in bandit groups to make a living, even though the Toubou rebel forces' resistance weakened due to droughts (Kelley, 2018, Chapter 1; Decalo, 1997, p. 167; see also Coats (1990); Azam & Djimtoingar (2004)).

It is worth highlighting that the primary concern of the Arab and Toubou people was historically to search for water and food for survival during drought periods. When

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[131] In the period after Operation Agriculture, the highest cotton seed production was achieved in the 1983-1984 harvest season with 150,000 tons (see Decalo (1997, p.136)).

the Sahel drought hit Northern Chad in the 1970s, for instance, the fervor of the rebellion in the North against the Tombalbaye regime was gradually diminished, and thus the Second Liberation Army of the FROLINAT temporarily dispersed. Although the regime's reluctance and delays in delivering emergency aid to the drought-hit Northern areas increased resentment among the Arabs and Toubou people, their main concern was survival rather than rebellion. Therefore, some Arab and Toubou people either moved to the southern and eastern regions to research water and work or participated in bandit groups for food and money, robbing particularly pilgrims, merchants, and even soldiers throughout borderlands (Burr & Collins, 1999, pp. 34-37, 64–66, 92–94; see also FBIS Record (1983)).[132] In such a civil war environment in which the central authority did not have control over the whole country, these people formed or supported local armed bands consisting of a few hundred ill-trained rebels in order to protect their interests (Tartter, 1990, p. 174). An indication of increased banditry during the drought-hit civil war could be deduced from a radio interview with a leading figure of the FROLINAT, Mahamat Abakar, in which he explained why he rallied to the government side during the reconciliation policies of Tombalbaye in 1974: "The behavious [sic.] of some rebel element was more like banditry than anything else" (FBIS Record, 1974g). In brief, the Sahel drought's negative effects on the Chadian agriculture-based economy

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[132] It is important to note that Decalo (1997, p. 167) implicitly points out the role of the Sahel drought in increasing the participation of drought-affected people in the northern Toubou rebellion. Burr and Collins (1999, pp. 64–66), however, explicitly argue that the Sahel drought forced the Arab and Toubou people to participate in bandit groups for economic incentives throughout the borderlands. Though not directly related to the Sahel drought, after the demise of Tombalbaye by a military coup and the subsequent transfer of central power to the northern rebel groups, the civil war itself started to be seen as a lucrative occupation in which warlords (Goukouni & Habré) and their followers easily switched their sides for income and status. This was mainly because the northern nomads (Teda, Daza & Goran) considered the state a booty to be plundered (see Debos (2016); Fuchs (1996)).

further deteriorated the already fragile economic and political situation, despite the Tombalbaye regime's ambitious programs for *autarchy* and short-lived reconciliation efforts.

Getting the northern Toubou rebellion under control with the French military help on the one hand, Tombalbaye was also grappling with the negative effects of the Sahel drought on the Chadian agriculture-based economy on the other, which eventually led to the further deterioration of state capacity. According to the World Bank data (2021b), for instance, when the Sahel drought started to show its adverse effects in 1969, the annual Chadian GDP growth was 6.9%. However, when the effects of the Sahel drought reached its zenith by 1974, the annual GDP growth decreased to -8.4%. Similarly, while the share of agricultural production in GDP was approximately 40% in 1968 when the Sahel drought started, that rate decreased to roughly 35% in 1976 when the drought ended (World Bank, 2021b).[133] Furthermore, during the 1973-1974 drought period when the Sahel drought was most severe, almost one-third of Chad's livestock perished, and the harvest of cotton as the main export cash crop fell sharply (FBIS Record, 1981; see also Coats (1990)). Just one year before the onset of the Sahel drought in 1968, the cotton harvest was 122,700 tons but that number plummeted to 104,000 tons in 1973, just before launching the ambitious Operation Agriculture/Cotton by the Tombalbaye regime (Collelo, 1990, p. 212). Therefore, along with Chad, the other Sahel drought-affected countries called for emergency relief aid from the international community since many of them were not able to provide even basic social services to people in need due to their weak infrastructure and economies. Given the Chadian

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[133] For more information on the Sahel drought's adverse effects on Chad between 1968-1976, please visit the country profile of the World Bank: https://data.worldbank.org/country/chad?view=chart.

economy's reliance on agricultural production, particularly cotton cultivation in the south (see Azam & Djimtoingar (2004)), it was not a coincidence that Chad and other affected countries were calling for international help to overcome the Sahel drought's devastating consequences. Therefore, many countries around the world, such as Australia, China, and Soviet Russia, responded to these calls, and thus affected countries were relieved to a certain extent (FBIS Record, 1974m, 1974h, 1974c, 1974b). Moreover, interstate committees were established to fight the Sahel drought, and the Organization of African Unity provided development funds for recovery programs (FBIS Record, 1974d, 1974e).

With the French military aid against the Toubou rebellion and international emergency aid in the fight against the drought and famine, the Tombalbaye regime was relieved to some extent. Nevertheless, problems in the distribution of international aid caused domestic and international criticism of the regime's discriminatory policies (Decalo, 1980b, p. 49, 1997, p. 167). These criticisms were mainly concentrated on two points. First, the regime did not act quickly and effectively since the drought-hit areas were in the northern and central regions where the rebellion was most effective. Furthermore, among the seven countries most affected by the drought, Chad was the last country calling for emergency aid for mass starvation and death. Second, international aid was confiscated by the Tombalbaye regime to consolidate his southern social base and regime supporters at the expense of people in the drought-hit areas (see FBIS Record (1977)). Even Tombalbaye's wife, for instance, was accused of profiteering from grain subsidies (Decalo, 1980a, p. 49; 1997, p. 167; see also Duffield (2000); Shearer (2000)). After an article on these issues appeared in the New York Times, which harshly criticized the regime for its overt discriminatory policies,

Tombalbaye declared at a press conference that they would not accept the US relief aid due to such accusations (see FBIS Record (1974l)). In an interview with a French newspaper, however, Tombalbaye admitted that there was a problem in delivering international emergency aid to drought-stricken people but attributed such problems to Chad's poor transportation infrastructure (FBIS Record, 1974k). Despite the regime's deliberate policies to mislead the international community, Abdelkader Kamougué, a Southern commander in the military junta that ousted Tombalbaye in 1975, stated the following in an interview: "We are an underdeveloped country with an empty treasury because the international [development] credits granted to Chad were wasted or used up by the Tombalbaye clique" (FBIS Record, 1975a). As is clear, despite ambitious agricultural programs, such as Operation Agriculture/Cotton, the Sahel drought during the 1970s further undermined the already weak state capacity of Chad in a way that the Tombalbaye regime welcomed French military aid for containing the rebellion and exploited international emergency aid to maintain his clientelist rule on the grounds of providing basic social services and security amid an ongoing civil war.

4.3.4 Chadinization, Armed Forces & Demise of Tombalbaye

In this political environment in which the northern Toubou rebellion was contained by the French and the international aid alleviated the negative effects of the Sahel drought, conditions had become more favorable for the Tombalbaye regime to reconsolidate its power through the continuation of his repressive policies.[134] In fact,

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[134] Although the rains experienced after the intense Sahel drought in 1974 seemed to be a positive development at first, the following excessive precipitation-induced floods further disrupted Chad's road infrastructure, consisting of mainly dirt roads, thus preventing the effective distribution of international aid to drought-hit areas (see FBIS Record (1974f)).

Authenticité, also known as *Cultural Revolution*, was initiated by Tombalbaye in the last years of the 1960s when the PPT officially launched its youth organization, the *Jeunesse du Parti Progressiste Tchadien* (JE-PPT, Youth of the Chadian Progressive Party). This youth organization had two major goals: (i) the elimination of foreign, particularly French, culture and values from Chadian society and institutions, and (ii) the elevation of authentic Chadian, largely Sara, culture and values (Thompson & Adloff, 1981, p.43; Azevedo, 2005, p. 67). To these ends, all foreign names were gradually *Chadianized* by authentic names; the name of the capital city, for instance, changed from Forth Lamy to N'Djamena, and François Tombalbaye replaced his first name with N'Garta. More importantly, the *yondo* manhood initiation rites became compulsory for those who wanted to work in the administration. As a Sara tradition, these initiation rites were "required to live for many weeks in the bush and undergo painful physical and psychological ordeals" (Thompson & Adloff, 1981, p. 44). Although these two policies were welcomed by the southern traditional leaders/elites, they met with adverse reactions from university students and western-educated intellectuals, such as Dr. Outel Bono, who was later allegedly assassinated by the regime in Paris (Decalo, 1980a, pp. 44-45). Despite aiming to strengthen and control his southern Sara support with these policies, Tombalbaye further alienated university students and intellectuals, who were previously two of the most supportive groups of the regime. In 1973, to further increase his control of the party cadres and continue his radical nationalist policies like *authenticité* and *yondo*, Tombalbaye closed the PPT and established a new party: the *Mouvement National Pour La Révolution Culturelle et Sociale* (MRNCS, National Movement for the Cultural and Social Revolution), responsible for the institutionalization of the *yondo* rites in the bureaucracy.

Nevertheless, many southern Christians, particularly the Protestants, refused to accept the mandatory *yondo* initiations. Therefore, many were subject to intense pressure or started to disappear for unknown reasons, which eventually caused an international outcry against the regime (Thompson & Adloff, 1981, pp. 43-45; Azevedo, 2005, pp. 67-68; see also FBIS Record (1974i, 1975b)).

To receive the conditional French military help in 1969, Tombalbaye admitted for the first time that "many errors and mistakes had been committed, and have given rise to injustices of all kinds which are the cause of discontent" (Decalo, 1980a, p. 45). After a short while, however, he accused the FAT/army of not being able to control the northern rebellion in a timely manner. More importantly, he accused the FAT of trying to stage military coups against his regime with foreign support, mainly from Libya. It is important to note that, like his short-term reconciliation policies, such allegations were frequently used themes of the Tombalbaye regime against its opponents. He even described himself as the African leader who exposed the highest number of conspiracies and plots. Only in the first half of the 1970s, for instance, Tombalbaye struggled with several unsuccessful attempts to subvert his regime: an abortive military coup allegedly instigated by Libyan leader Muammar Gaddafi in 1971, an unsuccessful FROLINAT attack against N'Djamena in 1972, and the *Black Sheep Plot* in 1973 -a Sara black magic to overthrow Tombalbaye. As a result of these allegations, many dissenting figures were either imprisoned, exiled, or assassinated. General Félix Malloum, for instance, was accused of being participated in the Black Sheep Plot along with the leader of the PPT's (later the MRNCS) women's wing, Kalthouma Nguembang. Furthermore, just before the establishment of the MRNCS, Dr. Outel Bono was assassinated in Paris, aiming to establish a new party that advocated dialogue with FROLINAT to end the civil war

(Azevedo, 2005, p. 69; Decalo, 1980b, pp. 44–49, 1997, pp. 234, 282). Although all these cyclic reconciliatory and contentious policies were made with the aim of controlling the social base and party cadres as well as oppressing the dissidents, the number of regime supporters decreased gradually. Towards the last years of his rule, even the most important regime supporters, namely university students and intellectuals, became regime opponents.

The FAT's failure to control the northern Toubou rebellion and its involvement in many alleged coup attempts made Tombalbaye warier of the army. Besides arresting and exiling military officials, including high-ranking members, who were involved in alleged coups, he rather relied on French and Israeli military assistance to secure Chad's territory. Moreover, he formed a special unit of Moroccans for his personal safety (see Tartter (1990, pp. 175–177)). In fact, the root cause of the distance between the regime and the army was Tombalbaye's changing foreign policies and his close relations with the leader of Libya, Muammar Gaddafi. The relations with Libya were a thorny issue for Tombalaye due to Gaddafi's support for FROLINAT and military coups. In 1972, however, Tombalbaye visited Gaddafi in order to for Libya to cut its support to the Front and provide financial aid for the Chadian economy. To appease the Libyan leader, Tombalbaye broke Chad's diplomatic relations with Israel and recognized Palestinian rights. In 1973, knowing that Chad was in a difficult situation economically and militarily partly due to the adverse effects of the Sahel drought, Gaddafi annexed the *Aouzou Strip* based on the unratified 1935 *Franco-Italian Boundary Agreement* (see Decalo (1997, p. 55-56); Rondos (1983, p. 7)). With this annexation, Gaddafi did not only aim to exploit the so-called uranium resources in the Aouzou Strip, but also control a strategically important country for his expansion in Central Africa (see Zartman

(1983)). Accusations that Tombalbaye tacitly accepted this annexation in exchange for economic assistance caused the army to decrease its support for the regime even further. Against the domestic and international backlash to this annexation, Tombalbaye followed a familiar strategy to oppress the dissident voices: coup allegations supported by foreign actors, arrests, and exiles (Azevedo, 2005, pp. 69–70; Decalo, 1980b, pp. 50–51; Thompson & Adloff, 1981, pp. 47–49). As Thompson and Adloff (1981, p. 48) succinctly put it, the military coup led by General Félix Malloum in 1975 was the "reaction to [all] the downgrading and humiliations which the army had experienced at the hands of Tombalbaye."

4.3.5 Military Regime & End of First Civil War

In 1975, a group of military officers named the *Groupe des Officiers des Forces Armées Tchadiennes* staged a coup against the Tombalbaye regime under the leadership of General Molloum. Although the Chadian people initially welcomed the coup, it shortly became clear that the military regime had nothing to offer but toppling the Tombalbaye regime. Due to not fulfilling the promised reforms in a timely manner but appointing old regime supporters to new administrative positions, the popularity of the *Higher Military Council* (CSM) headed by General Malloum was gradually weakened. Despite the efforts to hire more Muslim Arabs for the government, the regional and religious balance was still far from being reached. In order to control the northern rebellion, General Malloum halt the military operations against the FROLINAT and highlighted that he was open to negotiations with rebel forces through reconciliation policies. The return of Derde from Libya, for instance, was allowed on the grounds that he could alleviate the northern Toubou rebellion. Despite these reconciliatory steps, Malloum did not get the anticipated reaction from the Front, particularly the Toubou

people. Therefore, he resorted to increasingly authoritarian policies to consolidate his power, such as maintaining the French policy of appointing the Sara people to administrative positions. In the meantime, the Second Liberation Army (FAN) of FROLINAT kidnapped three Europeans in the BET prefecture in 1974, including French archaeologist Françoise Claustre. In the *Claustre Affair*, for instance, General Malloum removed the military cadres from the army who opposed his handling of the issue. After it became clear that the French and German governments directly contacted Hissan Habré for the release of the hostages for ransom and non-military support, General Malloum demanded the withdrawal of the French military from Chad. All these authoritarian steps following the reconciliatory policies were slowly undermining the military regime's social support: in 1976, General Malloum survived assassination, and one year later, a coup attempt at the presidential palace was prevented (Thompson & Adloff, 1981, pp. 65-69; Azevedo, 2005, pp. 71-73; Decalo, 1980a, pp. 51-52).

Despite all these negativities, the leadership struggles that took place within the FROLINAT were to the advantage of the military regime. The kidnapping incident and the annexation of the Aouzou Strip by the Libyan forces caused a leadership struggle between Habré and Goukouni in 1976. While Goukouni supported releasing the European hostages to handle the relations with France and keeping the relations with Libya warm for military and financial assistance, Habré supported exploiting the kidnapping incident to the fullest in order to increase the recognition of the Second Liberation Army and opposing the Libyan annexation vigorously for Chad's unity. Therefore, after the 1975 military coup, this disagreement over the 1974 Claustre Affair came to the surface within the Front. Since Goukouni was mainly supported by the Libyan Leader Gaddafi, he released the hostages in 1977 because of increased Libyan

pressure and ousted Habré from the leadership of the Toubou rebellion. Another leadership struggle within the Front was between Habré and Siddik. Although Abba Siddik did not consider Goukouni a potential rival for his leadership, he showed greater animosity against Habré because of his comparable intellectual capacity and experience in guerilla warfare that Siddik did not have. These internal struggles for the leadership positions undermined the possibility of forming united resistance against the Malloum regime (Thompson & Adloff, 1981, pp. 70-73; Azevedo, 2005, pp. 71-73; see also Kelley (2018, Chapter 1)). Given the weakened state capacity caused by the Sahel drought's adverse effects, these internal struggles offered a way out for the Malloum regime to maintain power.

Although the FROLINAT was grappling with its internal struggles, General Malloum did not succeed in containing the rebellion due to the French military withdrawal. In 1977, it became apparent that the Chadian Army (FAT) lacked the power to put down the rebellion without external support. Such a military weakness was, to a certain extent, based on the negative impact of the Sahel drought on the Chadian agricultural economy (see Klomp (2022)). With the help of the Libyan military and financial support, however, Goukouni's forces were carrying out successful attacks against the government forces even in N'Djamena. Thus, Malloum recalled the French military help in 1978 to save his regime from the FROLINAT attacks. Moreover, given Habré's quarrel with Goukouni and Siddik, Malloum aimed to exploit this situation to his advantage. He appointed Habré as the prime minister by signing a *Charte Fondamentale* in return for the unification of the FAT and Habré's FAN. Contrary to the charter, Habré began acting as if he was the president of Chad and delivered inflammatory speeches on the delicate North-South relations. The imminent armed

conflict between the FAT and FAN erupted with an aborted strike at the *Lycée Félix Eboué* between Muslim and non-Muslim students and paved the way for the first battle of N'Djamena in 1979. With the help of Goukouni's *Forces Armées Populaire* (FAP) from the North, Habré was able to win the battle against Malloum. In the meantime, the Sara commandos, known as *codos*, led by Colonel Abdelkerim Kamougue, who was the foreign minister of the Malloum government, massacred tens of thousands of Muslims in the South as an act of revenge. It is also important to note that the French forces were hesitant to defend the capital city against rebel forces due to the looming ascendancy of Habré's power and status in Chadian politics. After the capital city's capture by the rebel forces in 1979, Nigeria intervened in the civil war and convened two conferences, namely *Kano I* and *Kano II*, in order to end the civil war. After the failure of the early efforts, Nigeria, backed by Libya, convened another two conferences, namely *Lagos I* and *Lagos II*, to form a transitional government between Goukouni/FAP and Habré/FAN. As a result of these meetings, *Gouvernement d'Union Nationale de Transition* (GUNT, Transitional Government of National Unity) was formed in which Goukouni was made the President, Colonel Kamougue as the Vice President, and Habré as the Defense Minister of Chad. With the establishment of the GUNT in 1979, Northern dominance was restored to the detriment of the South, and the First Chadian Civil War, which lasted 19 years, was over. Unfortunately, the state of peace would be short-lived (Azevedo, 2005, pp. 72-77; Rondos, 1983, pp. 5-6; Decalo, 1980a, pp. 52-54; see also Thompson & Adloff (1981, pp. 74-83)).

4.4 Conclusion

When Chad became independent from France in 1960, it was one of the least developed countries in the world: almost non-existent transportation and

communication infrastructure, a narrow cadre of intelligentsia trained in a few educational institutions, an agricultural economy vulnerable to weather conditions, and a weak state lacking the capacity of providing even basic social services and security to its citizens. Furthermore, when Tombalbaye became the president of Chad in 1960, the contemporary Chadian social fabric was fraught with historical ethnic animosities between Northern Muslim ethnic groups (the Arabs and the Toubou) and Southern Animist and Christian Sara people. In fact, all these ethnic hatreds, prejudices, and stereotypes were rooted in the pre-modern period when northern Muslim slave traders raided the non-Muslim Sara for wealth accumulation. On top of this historical background, French colonialism further entrenched the existing fault lines between northern and southern ethnic groups in a way to exploit the Chadian scarce natural and human resources for wealth transfer and the protection of French security interests against the British and Germans in West and Central Africa.

Nevertheless, all this historical baggage does not necessarily lead us to ignore the maladministration of Tombalbaye from independence to his demise in 1975. As the path dependency theory suggests, although the historical background limits the repertoire of choices that individuals/policymakers can take at critical junctures, the human agency, in part, can still divert the way history will take by specific choices (see Capoccia & Kelemen (2007); Soifer (2012)). In this regard, N'Garta Tombalbaye, who supported the oppressed Sara in almost every field against the historically dominant Northern Muslim ethnic groups by utilizing the state apparatus, caused historical ethnic animosities to turn into a hot conflict between the North and the South (see Kaufman (2001, 2015)). Furthermore, with his overt discriminatory and radically nationalist policies, he played the most prominent role in the continuation of the first Chadian Civil

War between 1965-1979. In addition to the adverse effects of Tombalbaye's maladministration on the civil war onset and duration, leadership struggles within the FROLINAT since its inception also prevented strong resistance to the Tombalbaye regime. Such disunity caused the FROLINAT to miss an opportunity to overcome a weak Chadian state capacity, which was further exacerbated by the Sahel drought and thus needed the French military and financial aid vehemently. The fact that the French followed an ambivalent policy regarding Chad's military and financial aid demands for ideological and strategic reasons in the post-independence period was also a detriment to ending the first Chadian Civil War in a relatively short time.

If the Chadian Civil War was essentially an ethnic conflict between the Muslim Arab North and non-Muslim African South that was entrenched by French colonialism and perpetuated by political leaders, be they Tombalbaye and the FROLINAT cadres, what role, if any, did the 8-year-long Sahel drought (1968-1976) play in this prolonged civil war? Based on my minimalist process tracing backed by the FBIS historical records, it becomes evident that the Sahel drought positively contributed to the prolongation of the civil war, although not strong compared to other factors. By undermining both people's livelihoods and already weak state capacity, the Sahel drought played a *multiplier* role in prolonging the ongoing civil war. First of all, the Sahel drought negatively affected the livelihoods of mainly northern social groups that make their living from agriculture and animal husbandry, causing people to migrate to new places for water, food, and work. More importantly, some of these people participated in bandits and/or rebel groups for economic reasons. Second, considering that Chad, whose GDP is mostly dependent on agriculture and animal husbandry, was adversely affected by the Sahel drought, the state had major problems even in providing

basic social services and security to its people during drought periods. Failure to deliver emergency aid to drought-stricken people promptly and effectively due to infrastructure problems and political reasons heightened the already existing grievances against the Tombalbaye regime. Although this situation did not necessarily increase participation in the FROLINAT, I argue that the increase in grievances provided a crucial psychological motivation for the war continuation. Furthermore, the request of Tombalbaye for the French military and financial aid during the Sahel drought-affected periods reveals how the Chadian state capacity was adversely affected by the drought, even at the point of providing security, which is one of the main tasks of states.

From the above discussion, it is evident that my first and second propositions, namely (i) the loss of livelihoods and (ii) the decreased state capacity, are supported by my process tracing regarding the impact of the Sahel drought on the first Chadian Civil War (see *Part II*: *Propositions*). Nevertheless, it is important to note that the evidence supporting these two causal mechanisms is not robust. In other words, the evidence I have found did not pass Van Evera's (1997) doubly-decisive test since it was not certain *and* unique. Given that it is an arduous task in social sciences to find evidence that can pass the doubly-decisive test, my minimalist process tracing aimed to find some evidence passing at least the hoop and/or smoking-gun tests for a plausibility probe (see Beach & Pedersen (2019, p. Chapter 8)). In this regard, my propositions are still valid since I found, albeit limited, evidence to support the aforementioned causal mechanisms in the FBIS historical records. More clearly, my propositions, at least, pass the smoking-gun test. The reason why my propositions do not pass the hoop test but pass the smoking-gun test is that the evidence I found in the FBIS historical records was unique but not certain (see Van Evera (1997, pp. 75–76)). This outcome is in line with my

minimalist process tracing, in which the ultimate aim was, at least, to find a plausibility probe between droughts and civil war durations.

All in all, one can conclude from the above case study/process tracing that although limited compared to other factors, the Sahel drought impacted the duration of the first Chadian Civil War. This impact occurs in two ways, namely (i) the loss of livelihoods but predominantly (ii) the decreased state capacity, in a way that these two causal mechanisms are assumed to alter the balance of power between the FROLINAT and FAT: (i) an increase in the FROLINAT's public support and mobilization capacity due to heightened grievances and economic imperatives/interests and (ii) a decrease in the Chadian state capacity in providing social services and conducting effective counterinsurgency operations. In the end, such changes in relative power are expected to change the strategic calculations of protagonists about whether to continue or exit the war, thus, the duration and outcome of the civil war (see *Chapter 3*: *Figure 5*). Moreover, the Sahel drought demonstrates how intertwined environmental issues and human and state security are, as human security literature posits in contrast to traditional security studies (see *Chapter 1*). Despite the common wisdom that they lead to famines and human catastrophes, droughts can also contribute to state insecurity by undermining states' capacity to provide social services in times of need and maintain counterinsurgency operations against rebel groups. Therefore, a much more holistic view of security is needed in order to understand how security issues are broad and deep.

Chapter 5

SUDAN

In the previous chapter, to examine and elaborate on the causal mechanism between droughts and civil war dynamics, I investigated the first Chadian Civil War (1965-1979) as the most-likely case in which the eight-year-long Sahel drought occurred. Though not strong, I found that persistent droughts impact the duration of civil wars by undermining both the livelihoods of people and the state capacity in a way that drought-induced changes in relative power may alter the decision of protagonists about whether to continue or exit the war. In this chapter, however, I will focus on another case from North Africa: Sudan. In contrast to Chad, Sudan is an equifinality case in which even short drought periods can cause prolonged civil wars by suggesting (an) alternative causal mechanism(s) (see *Tables 8* & *9* in *Part II*). Before examining the control case (Ethiopia) in the ensuing chapter, the Sudan case here is expected to assess whether droughts are necessary conditions for prolonged civil wars and, if not, expected to provide an alternative causal mechanism between droughts and civil war dynamics. To this end, I will focus on the extent of three short-term drought periods and their impacts on the second Sudanese Civil War after giving background information on the civil war case. After tracing the process of the second Sudanese Civil War, I will evaluate the evidence found in the conclusion and endeavor to reach a conclusion about the validity of my propositions and the viability of (an) alternative causal mechanism(s).

5.1 Introduction

Similar to Chad, Sudan is at the intersection of diverse geographic and cultural heritages. Although these heritages make Sudan a transfer point of ideas, cultures, and technologies between the Middle East and Africa, the same heritages undermine Sudan's abilities to construct a unifying national identity, which two times led to experiencing prolonged civil wars between the North and South. Among African countries, Sudan was the largest country until the secession of the South in 2011. Despite its vast territorial size, Sudan is considered one of the world's least developed countries (LDCs) and ranked 172 out of 191 countries by the 2021/2022 United Nations Human Development Index (UNDP Team, 2022b, p. 307). Undoubtedly, the impact of the *Turkiyya*, *Mahdiyya*, and *Anglo-Egyptian Condominium* eras on Sudan's institutions and social fabric and the two prolonged civil wars between 1955-1972 and 1983-2005 have contributed to the continuation of Sudan's underdevelopment, including nation-building problems and factionalism. Furthermore, the country's agriculture-based economy and the discovery of oil reserves in the South (*Abyei & Bentiu*) towards the late 1970s make Sudan vulnerable to environmental problems and external interventions. All these factors, to some extent, explain why Sudan has been experiencing persistent social, economic, and political issues since its independence from the Anglo-Egyptian Condominium in 1956.

As mentioned earlier, civil wars include complex processes, and thus it is hard to explain cases with a single factor. Nevertheless, in this sub-section, I endeavor to explain the impact of three drought periods (1987, 1990 & 1996), each less than a year, on the second Sudanese civil war (1983-2005). After achieving its independence, Sudan experienced several critical junctures in its history: the democratic and military experiments until the rise of Ja'far al-Numayri in 1969 along with the first civil war

(1955-1972), the *Islamization* of the Sudanese politics started by the al-Numayri regime and continued by the al-Bashir government along with the second civil war (1983-2005), and the secession of South Sudan in 2011 as a result of the 2005 *Comprehensive Peace Agreement* (CPA). In the immediate post-independence period, Sudan struggled with state- and nation-building problems. The northern Muslim Arab and non-Arab ethnic groups deliberately excluded the southern people, who are mainly Animist and Christian *Nilotic* people, from both processes. Against these discriminatory and exclusionary policies, the *Torit Mutiny* erupted within *Equatoria Corps* in 1955 and transformed into the (First) *Anya Nya Rebellion*. The first civil war ended with the 1972 *Addis Ababa Agreement* when a military coup called the 1969 *May Revolution* led to the rise of a military officer, Ja'far al-Numayri, in Sudanese politics. Although al-Numayri promised fair representation and regional autonomy to the South, he did not fulfill his commitments. As al-Numayri lost southern public support, his socialist regime began to transform into a more Islamic one in order to get much more support from the Muslim North. In 1983, when he declared *Islamic Revolution* and started imposing the *Sharia Law* even in the non-Muslim South, the second civil war erupted between the Khartoum government and the *Sudan People's Liberation Movement/Army* (SPLM/A) led by John Garang. After al-Numayri's overthrow by a military coup in 1985, the Islamization of Sudan was initiated under the leadership of another military officer, Omar al-Bashir, who came to power through a military coup in 1989 and was supported by an Islamist politician, Hassan al-Turabi. Increasing international pressures due to the government forces' human rights violations and war crimes in the South and the government's support for international terrorism as well as rising tensions over the sharing of oil reserves/revenues with the South, pushed the al-Bashir regime to reach a

compromise with SPLA: the signing of the 2005 Comprehensive Peace Agreement and the eventual secession of South Sudan in 2011.

Although I aim to examine the impact of three short-term drought periods on Sudan's second civil war, I argue that the droughts (1987, 1990 & 1996) had minimal impact and were not a necessary cause of the 22-year-long civil war. Given several irrigation schemes using the *Nile River* against droughts, such as *al-Jazīrah Scheme*, Sudan is much more resilient to environmental problems than Chad, particularly to droughts, which are the endemic problem of the Sahel region. Furthermore, after the discovery of oil in Abyei and Bentiu, the Sudanese economy has not been solely dependent on agricultural production. Therefore, I argue that the root causes of the prolonged second Sudanese civil war should be rather searched into three key factors: (i) the historical animosities between the Muslim North and the non-Muslim South, which was deepened and perpetuated by the Turkiyya, Mahdiyya, and British colonialism, (ii) the maladministration of authoritarian military regimes, namely al-Numayri and al-Bashir, and most importantly, (iii) the disputes over the sharing of oil reserves and revenues between the central government and the South since the late 1970s. It is important to note that the first two factors are common with the Chadian case. The explanatory factor that makes a difference in the case of Sudan is the discovery of oil and the disputes over how to share oil revenues between the Khartoum government and the South. The three short drought periods, on the other hand, played auxiliary roles in the al-Bashir regime's counterinsurgency operations for controlling oil reserves on the North-South borderline by creating intentional famine and manipulating international emergency aid. Moreover, in contrast to the findings in *Chapter 3*, exclusionary and discriminatory state policies against the South can be easily

identified as one of the salient factors in explaining why Sudan has experienced intermittent prolonged civil wars throughout its history.

To elaborate on my arguments above, I start by providing background information on Sudan, namely its geographical, ethnic, and economic structures, the legacy of the Turkiyya, Mahdiyya, and Anglo-Egyptian Condominium, and the decolonization period and al-Numayri regime. Then, I follow the chronological order of al-Bashir's rise in Sudanese politics from the 1985 military coup to the 2005 Comprehensive Peace Agreement, in which both the second Sudanese civil war and the three short-term drought periods occurred. To support my propositions about how these droughts (1987, 1990 & 1996) can even minimally impact civil war dynamics, I provide evidence from historical records of the FBIS whenever possible.

5.2 Background of al-Bashir Era

As I pointed out in the Chadian case, civil wars are complex processes in which several variables play an important role in generating domestic armed violence between government forces and rebel groups. As in Chad, the Sudanese case requires examining the role of geography, various opposing ethnic groups, factionalism, proselytizing religions and sects, political and economic discrimination by the state, British colonialism, and external interventions. Therefore, as Johnson (2003, pp. 1–2) argues, conceptualizing the Sudanese civil war as a mere violent struggle between the North *versus* the South, Muslim *versus* Non-Muslims, or Arabs *versus* Dinka and Nuer people is problematic since such a perspective reduces complex civil war dynamics into simple dichotomies. For this reason, I provide some background information on Sudan's geographical features, ethnic diversity, economic structure, foreign administrations, such as Turkiyya and Anglo-British Condominium, and the al-Numayri regime in the

post-decolonization period in order to understand the complex processes of the civil war onset in the al-Numayri era (1983) and its continuation under the rule of al-Bashir (1989-2005).

5.2.1 Geographic, Economic & Social Structures

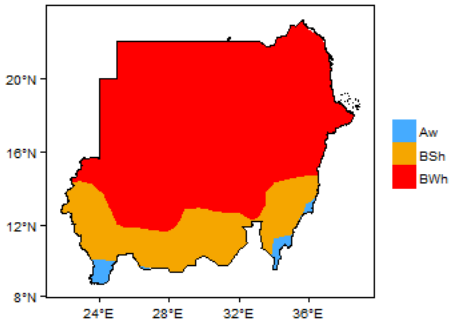
Located at the intersection of the Middle East and Africa and thus under the influence of both cultures, *Bilad al-Sudan* (Land of Blacks) consists of several geographic and climatic zones: *Nubia* in the riverain region, *Red Sea Hills* in the northeast, *Jabal Marra* (Marra Mountains) in Darfur/the west, vast sand plains in the central region, deserts in the north, and even rainforests in the south. Despite its diverse geographical features, Sudanese geography is generally categorized into three zones: rocky deserts in the north, sand plains in the center, and a clay belt in the south (Holt, 1961, p. 4).[135] Lying between the Egyptian border and the capital city (Khartoum), the northern region consists of rocky deserts with almost no precipitation. Although the Nile River runs through the northern rocky deserts, its alluvial strip is at most two kilometers wide, and its productivity depends on the annual flood. The central region around the *Jabal an-Nuba* (Nuba Mountains) has no reliable water sources and consists of sand plains known as the *qoz*. The central-west region is known as Darfur, which has no perennial streams, and thus people and animals depend on permanent wells for water. Located around the volcanic massif of the Jabal Marra, Darfur is a semi-desert area with a few water sources and, thus, has a dispersed population. Conversely, the central-east

[135] Despite these three general geographical categories, others (e.g., Bechtold (2015, pp. 62–63), Kramer et al. (2013, Introduction)) argue that Sudan can be categorized into five different regions according to the areas' distinctive characteristics: rocky deserts of northern Sudan, mountainous western Sudan (*Jabal Marra*), sand plains of central Sudan around *Jabal an-Nuba* (Nuba Mountains), the *Ironstone Plateau* around *Jabal Hadid*, and the southern hill masses.

and northeastern regions consist of desert and semidesert areas with sufficient water sources for subsistence agriculture and animal grazing. The coastal areas along the Red Sea Hills, however, are dry and barren, consisting of rocks and coral reefs. Last, the south of the central region, from the Nuba Mountains to the borders of the Democratic Republic of the Congo and Uganda, is a vast swamp and clay area around *Jabal Hadid*, known as *al-Sudd* and *Ironstone Plateau*, respectively. This region is the backbone of Sudan's agricultural economy, in which export-oriented cotton production is mostly cultivated there, particularly in the *al-Jazīrah region* -the land between *White Nile* and *Blue Nile* (Bechtold, 2015, pp. 63-66; see also Holt (1961, pp. 3-5)).

As can be seen, similar to Chad, there are sharp geographical and climatic contrasts between the northern and southern regions in Sudan (see *Figure 12* below). These contrasts have also affected what kind of economic activities can be carried out in each region. Although the northern regions are mainly rocky deserts without permanent water sources and precipitation, and thus the least populated areas of Sudan, the central and central-north regions in the *Nile Valley* (Nubia) are suitable for cultivating crops on farms with the help of irrigation systems. The *Three Towns* (Khartoum, Khartoum North & Omdurman) in the Nile Valley are thus one of Sudan's most populated cities. Around Darfur/Jabal Marra in the west, the main livelihood activity is subsistence agriculture and nomadic pastoralism. Similarly, in the east, people occupy mainly with nomadic pastoralism but can also farm with irrigation systems. The southern regions, however, include a variety of occupations, from animal farming to industrial agriculture. The central and southern regions, thus, are the backbone of Sudan's agricultural economy, where cotton for export and sorghum and millet for domestic consumption are cultivated. Particularly the al-Jazīrah region, with

the aid of irrigation schemes, has become the locomotive of irrigated cotton production since the Anglo-Egyptian Condominium. It is important to note that the discovery of oil reserves in the South (Abyei & Bentiu) in the late 1970s and its export through a pipeline from Khartoum to Port Sudan has further increased the region's importance for the Sudanese economy (see DeLancey (2015)). The southern, eastern, and western populations, however, are not that dense compared to the central region. Migrations due to uneven regional development, ecological degradation, and civil wars are some of the main factors behind uneven population density (Kramer et al., 2013, Introduction; see also Bechtold, 2015, pp. 63-75).



Aw: Equatorial savannah with dry winter | BSh: Hot steppe climate | BWh: Hot desert climate

Figure 12: Climatic Zones of Sudan[136]

[136] This figure was created by using the CRU TS 3.21 Dataset by the Climatic Research Unit at the University of East Anglia, UK. Source: Harris et al. (2014). Updated High-Resolution Grids of Monthly Climatic Observations – the CRU TS3.10 Dataset. *International Journal of Climatology*, 34(3), 623-642. For more information regarding the climatic zones of other countries, please see the Climatic Research Unit website: https://www.uea.ac.uk/web/groups-and-centres/climatic-research-unit/data.

All these geographical features and economic activities also coincide with the Sudanese ethnic fabric. Though a mere reductionism, the Sudanese ethnic structure can be categorized as the Muslim North *versus* the non-Muslim South, in which each ethnic categorization includes a variety of ethnic and religious sub-groups. In general, the North consists of Muslim Arabs and non-Arabs, whereas the South includes non-Muslim black Africans. It is important to note that Muslim Arabs and non-Arabs are also black Africans. The main determining factor here is not race or skin color but religious identifications clustered in certain regions. By northern ethnic groups, Islam is seen as a sign of superiority and status due to its historical domination and civilizational heritage in the Middle East and North Africa. In contrast, the South is considered primitive heretics who need to be civilized by the North (see Kaufman (2015, Chapter 3)). In detail, Sudan has 600 ethnic groups and more than 400 languages. While Arabic is the *lingua franca* and is mainly spoken in the Arabized Muslim North, English is the most spoken language in the African Animist and Christian South. Culturally, while the North is closer to the Arab world, the South is much more linked to Africa, particularly Uganda. Although the numbers are not reliable, almost 40% of the Sudanese population is believed to be ethnically Arabs. The Arabs of the Muslim North are generally categorized into two ethnic sub-groups: (i) the *Ja'aliyyin*, indigenous sedentary tribes who are Arabized over time, and (ii) the *Juhayna*, nomadic Arab tribes who reject the Ja'ali descent. In addition to Muslim Arabs, the North also hosts non-Arabs and non-Muslims, who have been able to protect their cultures from the influences of Arabs and Islam, such as the Muslim non-Arab *Beja people* in the north-east, the non-Muslim non-Arab *Nuba people* around Jabal an-Nuba, and the Muslim non-Arab *Fur people* around Jabal Marra. The South, on the other hand, rejects any

Islamic inheritance and Arab descent. Furthermore, the South is much more heterogeneous compared to the North. Nevertheless, the non-Muslim African South corresponds to one-third of the Sudanese population and consists of three major Nilotic ethnic groups: (i) the *Nuer*, (ii) the *Dinka*, and (iii) the *Shilluk*. While the Dinka are the single largest tribe in the South, occupying with animal husbandry and seasonal migration for pasturage, the Shilluk are sedentary people who raise cattle and cultivate crops in their lands. The Nuer, on the other hand, live in the inaccessible areas of al-Sudd and occupy with animal husbandry (Bechtold, 2015, pp. 76–96; Collins, 1984, pp. 3–8; Holt, 1961, pp. 5–12).

5.2.2 Legacy of Turkiyya, Mahdiyya & Anglo-Egyptian Condominium

Undoubtedly, such ethnic, religious, and economic diversity contributed to why Sudan has problems in constructing a unifying identity, particularly in the post-independence period. More importantly, the eras of Turkiyya, Mahdiyya, and the Anglo-Egyptian Condominium deepened the differences and animosities between Sudan's various ethnic groups and religious sects even more. From a historical perspective, one of the most important turning points for Sudan was the introduction of Islam through *Sufi sheiks* (teachers) and Muslim Arab merchants who traded on the ancient trade routes from the south (*Sennar*) to the north (Egypt) and from the west (Darfur) to the east (*Suakin*). In the intersection of these two trade routes, *Shendi* became a commercial center where mainly non-Muslim enslaved Africans were traded as domestic servants or soldiers abroad (see Holt (1961, pp. 12–15, 28-32)). It is worth highlighting that the slave trade was not a practice that Islam brought to Sudanese people. Instead, Muslim leaders just continued what ancient pagan and Christian kingdoms, such as *Kush*, *Meroë*, and *Nubia*, established: *razzia* (slave-raiding). The

main reason why Muslim leaders continued the slave trade was the importance of enslaved soldiers, mainly Nubians, in their armies (Johnson, 2003, pp. 2-4; see also Ofcansky (2015, pp. 3–8) & Khalid (2010, Chapter 1)). Although Islam and Muslim leaders contributed to Sudan's economic and political unity, particularly around urban and commercial centers in Nubia and the Nile Valley, they also sowed the seeds of the division between the Muslim Arabized North and the non-Muslim African South through ethnic and religious differences along with the ongoing slave trade (Ofcansky, 2015, pp. 8–10).

In fact, before the Turkiyya[137], neither *Mamluks* nor *Ottomans* exerted authority over the Sudanese interior, except the Red Sea coast for commercial reasons. Therefore, until 1821 when Muhammad Ali invaded Sudan, the Christian *Funj* Kingdom in the south and the Islamic *Fur* Kingdom in the west had, to some extent, autonomous administrations. Furthermore, the stateless Nilotic peoples in the South, namely the Dinka, Nuer, and Shilluk, were protected from the influence of Islam and Muslim leaders because of geographical barriers around their homelands (Ofcansky, 2015, pp. 12–14; see also Holt (1961, Chapter 2)). In order to exploit Sudan's gold mines for his treasury and recruit slaved soldiers for his army (the *Jihadiyya*), Muhammad Ali Pasha

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[137] For both Collins (2008, p. 10) and Holt (1961, p. 37), the term 'Turkiyya' does not accurately reflect the historical facts since any rulers who were not of Sudanese origin, even the British officials in the Condominium era, were seen as 'the Turks' by the Sudanese. Also, since medieval times, Egypt and its sphere of influence were governed by Turkish-speaking elites in Cairo, who showed allegiance to the Ottoman Sultan in Istanbul. While the Turks mainly occupied the important high-level political and military offices, Egyptian Arabs were only allowed to occupy financial and religious offices. After the death of Muhammad Ali Pasha, however, Arabic gradually replaced Turkish, and Egyptian Arabs started to occupy higher administrative offices. Therefore, both Collins (2008) and Holt (1961) argue that the most appropriate term that can be used to describe that period is the *Turco-Egyptian* era.

of Egypt[138], the Albanian viceroy of the Ottoman sultan in Istanbul, invaded Sudan without experiencing any strong resistance from the Ja'aliyyin Arabized tribes, except the *Shaykiyya*. At first, the Turco-Egyptian rule was welcomed mostly by northern Muslims as they exempted some sheiks and local chiefs from taxation and formed the embryo of a modern bureaucratic state through increasing trade and investing in infrastructure, such as road, river transportation, and large agricultural schemes. However, imposing harsh taxes on northern Muslims and applying the Sharia Law to non-Muslim southerners through an appointed Egyptian *Qadi* (supreme judge) gradually alienated both the Muslim Arabized North and the non-Muslim African South.[139]

It is important to note that as the new administration implemented new taxes and land reforms, the northern Muslim tribes, such as the Shaykiyya and *Baqqara*, increased the slave raids against non-Muslim southern groups. Furthermore, some officials and local chieftains, such as al-Zubayr Rahma Mansur Pasha, collaborated with these slave

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[138] Between 1798-1801, Napolean Bonaparte invaded Egypt in order to bring the ideals of the *Enlightenment* and *French Revolution* to the Orient and protect French security and trade interests in the region. With the help of Great Britain, the Ottoman Empire was able to terminate the French invasion, and the Ottoman Sultan appointed Muhammad Ali Pasha as viceroy to Egypt in order to reestablish his authority. As Muhammad Ali consolidated his power in Egypt through economic, military, and administrative reforms, he tried to expand his sphere of influence to become more autonomous and eventually independent from the Ottoman Sultan in Istanbul, which ultimately caused military clashes between them. For more information about Muhammad Ali Pasha of Egypt, please see: Cleveland & Bunton. (2009). *A History of Modern Middle East* (Fourth Edition). Westview Press. (pp. 64–74).

[139] It is important to note that religious reforms did not only alienate southern non-Muslims but also northern Muslims against the Turco-Egyptian rule. On the grounds that traditional *fuqaha* (Islamic jurists), Qur'anic *khalwas* (Islamic schools), and Sufi *tariqahs* (mystic Islamic orders) were the main obstacles to the formation of a modern Islamic society, the Turco-Egyptian rule discouraged their activities and shunned these religious leaders and institutions in its administration. Instead, the Turco-Egyptian rule imposed a *Sunni* (orthodox) religious jurisprudence, known as *Malikiyya* or *Maliki School*, and supported a Sufi tariqah, the *Khatmiyya*, which collaborated with the Turco-Egyptian administration. For more information, please see: Johnson (2003, p. 3), Collins (2008, p. 17-18) & Khalid (2010, Chapter 1).

raiders and even controlled the slave trade through a *zariba* (thorn enclosure) system in order to accumulate personal wealth and power. Therefore, Holt (1961, p. 4) rightly argues that "it was during this period of the nineteenth century that we can identify the beginning of a North-South divide in the Sudan." Ironically though, the successors of Muhammad Ali Pasha, known as *khedives*, signed the 1877 *Anglo-Egyptian Convention of Abolition* under British pressure in order to terminate the ongoing slave trades with the supervision of first Samuel Baker and then Charles Gordon. Although the slave trade continued unofficially, the northern Muslim *jallaba* (slave raiders/traders) considered the abolition another threat to their economic well-being, in addition to increased taxes. The southern non-Muslim Africans, on the other hand, abhorred the Turco-Egyptian rule due to their involvement in and facilitating the slave trade since the beginning (Collins, 2008, pp. 10–21; Johnson, 2003, pp. 4–6; Khalid, 2010, Chapter 1; see also Ofcansky (2015, pp. 14-17); Holt (1961, Chapters 3-5)). All these northern and southern grievances and enmity against the Turkiyya paved the way for a theocratic rule in Sudan: Mahdiyya.

The Mahdiyya era (1885-1898) began in 1881 on *Aba Island* when a *Sammaniyya*[140] sheik, Muhammad Ahmad ibn Abdallah, saw a vision that Prophet Muhammad appointed him as the *Mahdi*[141] (guided one). After leaving the Sammaniyya

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[140] As a Sufi tariqah, Sammaniyya was brought from Arabia to central Sudan by Ahmad al-Tayyib, who was a member of a Sudanese holy family. The founder of the Mahdiyya, Muhammad Ahmad, was also a follower of this Sufi order until he left. The Sammaniyya provided followers for Muhammad Ahmad and the Mahdi movement, and it is still active in the central Sudan. For more information about the order and his founding leader, please see: Kramer et al. (2013). 'Sammaniyya'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

[141] In Islam, particularly among unorthodox believers, called *Shiites*, Mahdi is believed as a divinely guided leader who will bring order and justice before the end of the world. The Mahdi belief has spread among Muslims, mainly through Sufi tariqahs. In the 19th century, Muhammad Ahmad utilized the Mahdi

tariqah, Muhammad Ahmad declared that he was a *mujaddid* (renewer of religion) of true Islam and the expected Mahdi of the Muslim community to restore the corrupt and unjust world. Those disturbed by the Turco-Egyptian rule, mainly pious social groups such as Sufis and fuqaha, slave traders such as the Ja'aliyyin Arabs, and his own tribe, the Baggara Arabs, were united under his leadership and formed their own brotherhood, called *Ansar*, to rise against the Turco-Egyptian rule. Traditional religious groups and notables, such as the *Khatmiyya*[142], who was on good terms with the Turco-Egyptian rule, became increasingly uncomfortable with Muhammad Ahmad's politico-religious vision. Even though Muhammad Ahmad was able to gather anti-Turkiyya social groups under his banner in a short time, he did not live long enough to see that his vision became a reality in Sudan. His *khalifah* (successor) Abdallahi ibn Muhammad, however, was able to overcome internal divisions between *awlad al-bahr* (the Ja'aliyyin Arabs) and *awlad al-garib* (the Baqqara Arabs), and attempted to materialize the Mahdi's goals by *jihad* (holy war), not only in Sudan but also in the world.

It is worth highlighting that the ultimate aim of Khalifah Abdallahi was to transform the Mahdiyya movement into an Islamic monarchy centered around his kinsmen in *Omdurman*. The British, on the other hand, were aloof about the Mahdiyya

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belief to establish his control in Sudan. For more information about the Mahdi belief, please see: Kramer et al. (2013). 'al-Mahdi'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

142 As a Sufi tariqah, Khatmiyya was introduced to Sudan by Muhammad Uthman but established and led by the al-Mirghani family. The order has branches in Egypt, Eritrea, and Saudi Arabia but is most powerful in northern and eastern Sudan. While the order has historically been a vigorous opponent of the Mahdi movement, it had good relations with both the Turco-Egyptians during the Turkiyya and the British during the Condominium eras. In the decolonization period, the Khatmiyya supported the unification with Egypt in order to undermine the power of the Mahdi movement. In the post-independence period, the order has been against the Ansar-affiliated political parties. For more information about the Khatmiyya tariqah, please see: Kramer et al. (2013). 'Khatmiya' & 'Al-Mirghani, Ali Ibn Muhammad Uthman'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

movement as long as they did not pose a direct threat to their interests in Sudan. Although Italian, German, and Belgian colonial forces avoided intervening in the management of Nile waters and posing an immediate threat to the security of the *Suez Canal*, the French were adamant about changing the use of the upper Nile water basin to their advantage. To that end, the French sent an expeditionary force led by Captain Jean-Baptiste Marchand to *Fashoda* in 1898. To control their interests in Sudan, maintain the *status quo* in the region, and stop the Fashoda Crisis escalation, the British in London and Egypt concluded that the best solution was the conquest of Sudan by a military force, which General Horatio Herbert Kitchener would lead. With the *Battle of Omdurman*, the Jihadiyya army and Mahdist state were brought to an end by the British forces (Collins, 2008, pp. 21–32; Johnson, 2003, pp. 6–7; Khalid, 2010, Chapter 1; see also Ofcansky (2015, pp. 17-22); Holt (1961, Chapters 6-7)).

In fact, the Mahdist state was an early form of Sudanese nationalism and represented the embryonic national liberation movement by including non-Muslim southern Africans in the Jihadiyya army and administration. However, this does not mean the end of racial and religious discrimination against southern non-Muslim Africans. Even though private slave trading decreased during the Mahdiyya, the South was generally perceived as a place to be plundered by the central region in times of crisis and need. Soon after the realization that the Mahdist state was a continuation of the Turco-Egyptian rule in a different form, the South saw Ansar as a new wave of Arab aggression. Furthermore, similar to the Turco-Egyptian rule, the Mahdiyya was a continuation of traditional administrative relations in which local chiefs and sheiks in the periphery showed allegiance to the center through religious and tribal ties. Therefore, it is right to claim that the Mahdiyya also sow the seeds of sectarianism

among Muslim groups through radical Islamization policies, in addition to the ongoing conflict between Dar al-Harb (house of war/the South) *versus Dar al-Islam* (house of Islam/the North) (see Khalid (2010, Chapter 1); Johnson (2003, pp. 6-7)). With the advent of the Anglo-Egyptian Condominium, such ethnic, religious, and sectarian fault lines were further deepened and sustained due to the implementation of specific administrative rules for the South in contrast to nationalist movements' vision of a unified Sudan.

The British occupation of Sudan was, in fact, a result of the *Scramble for Africa* by European powers (see Rodney (1982, pp. 135–145)). Rather than the Ansar/Mahdi movement's threats to British interests, the interests of European powers in the Nile Valley, particularly the French, led Great Britain to invade and control Sudan by eliminating the Mahdi movement. Thus, the first burgeoning nationalist movement in Sudan, though problematic, vanished into history. It is worth highlighting that since the British had no intention of annexing Sudan to the British Empire[143], they were in search of an intermediate formula in which they could recognize Egypt's historical claims. The formula sought was proposed by Lord Cromer in which Sudan was given a special political status: *Condominium*. According to the 1899 *Anglo-Egyptian Agreement*, Sudanese sovereignty was jointly shared by the British crown and Egyptian khedive through a governor-general responsible for military and administrative issues. No concessions were given to any European powers, and both powers ignored the claims of the Ottoman sultan in Istanbul. Furthermore, although the agreement gave equal

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[143] Similar to the French view of Chad, the British did not see Sudan as a piece of land valuable enough to be worth annexing. The main reason for the establishment of the Anglo-Egyptian Condominium was to secure the British interests in the region through utilizing Sudan's strategic location. For more information, please see Khalid (2010, Chapter 1).

partnership in ruling Sudan, the British were the *de facto* ruler of the Condominium, in which Egyptian rights were mostly discarded. With this administrative mechanism, the British had a greater say in ruling Sudan while sharing the financial burden of the Condominium with Egypt and responding to the khedive's historical claims superficially (Collins, 1984, pp. 8–11; see also Khalid (2010, Chapter 1)).

The primary task of the Anglo-Egyptian Condominium was to pacify the Sudanese territory in order to re-establish central authority. In this regard, the British supported al-Mirghani family/the Khatmiyya tariqah and the Ja'aliyyin Arabs in Nubia, who were vigorous opponents of the Mahdi movement. Military officials in administrative positions were also replaced with qualified civilians, and local chiefs and sheiks were supported in the periphery. Although such modernization steps were taken in the Muslim Arab North, the British did not follow the same policies in the non-Muslim African South for mainly three reasons. First, the British did not want Egypt to claim any rights on the upper Nile River basin where most Southerners lived. Second, the British did not want to leave the historically oppressed Southerners under the dominant Northern rule. Last, there was no need to reward the Southerners in return for their opposition to the Mahdi movement. At first, neither the British nor the Southerners had a positive view of each other. While the British considered the Southerners backward people, the Southerners saw the Anglo-Egyptian Condominium as the second Turkiyya. Furthermore, the British did not find any collaborative local chieftainships and sheikdoms that could be used against each other to re-establish authority as they did in the North. Thus, the South was mainly considered a reservoir for the Sudanese battalions, where the British carried out very few modernization and development

projects until the post-World War I period (Johnson, 2003, pp. 9–11; Collins, 1984, pp. 11-16; see also Khalid (2010, Chapter 1)).

With the end of World War I, the British strategy towards the South changed from indifference to *indirect rule* in which the South would be administered with indigenous institutions, laws/customs, and people as long as they were in line with African culture and British norms, rather than dominant Arab culture and norms. To further fortify the indirect rule, the British also implemented a *Closed District Ordinance* in the same years to secure African culture from the intrusion of the Muslim Arab culture. As mentioned above, the main problem of the South was the lack of administrative structures and qualified civilians who could take part in the administration. Therefore, the British first aimed to construct administrative institutions around agricultural centers and develop a qualified workforce through *Gordon Memorial College* (later *Khartoum University*) and missionary schools. It is worth highlighting that while the British supported the unification of Northern Muslims around the Khatmiyya tariqah, they encouraged the diversity of religion among Southern non-Muslims and allowed the Christianization of the South by Protestant and Catholic missionaries. The ultimate aim of the British was to generate and support an indigenous Christian South free from Arab and Muslim influences. In this direction, the British emphasized teaching vernacular languages and English in schools, formed a separate military unit consisting of Southerners (*Equatoria Corps*), and restricted free passage and trade between the North and the South. They even denied using Arab names and attire in the non-Muslim South and replaced Friday with Sunday as the official day of worship. Ironically though, the British did not support the economic development of the South as they did in the North. The economic development of the North was

supported by investing in infrastructure and agricultural schemes, such as railways, seaports, river transportation, and al-Jazīrah Scheme in riverain areas due to their strategic importance for the British Empire, whereas the South was mostly neglected. Such different policy choices further deepened and sharpened the existing cultural and economic divide between the North and the South (Johnson, 2003, pp. 11–17; Collins, 1984, pp. 22-24; Ofcansky, 2015, pp. 22-27; see also Khalid (2015, Chapter 1); Holt (1961, Chapter 8)).

5.2.3 Decolonization, Independence & al-Numayri Era

In fact, the Gordon Memorial College, which was established mainly to train mid-level officials for the better administration of the Anglo-Egyptian Condominium, formed the core cadre of the Sudanese nationalist movement among its *graduates*. These Western-educated graduates met with European ideas during their education/training in the College, including nationalism and self-determination. Unsurprisingly, these graduates rejected both the British occupation and the role/help of local chiefs and sheiks in the British administration. Instead of paying allegiance to local chiefs and sheiks, these graduates took Egyptian nationalism as a role model for Sudanese independence. One of the graduates, Ali Abd al-Latif, formed the *White Flag League* during the 1920s in order to drive out the British occupation and establish a united state with Egypt instead. It is worth highlighting that establishing a united state under the Egyptian monarchy or a completely independent Sudan became the main division line among Sudanese nationalists. When the nationalist movement was gaining strength, the assassination of the governor-general, Sir Lee Stack, in Cairo in 1924 led to the British order that all Egyptian military and civilian officials leave Sudanese territory. It was not a mere coincidence that the British indirect rule, in which local chiefs and sheiks were

given much more authority in the administration than the Western-educated graduates, was implemented after this assassination. The main concern of the British administration was to keep Egypt out of Sudan in order to secure its regional interests as much as possible. In the face of the British administration's policy changes, the graduates formed the *Graduates' General Congress* in 1938 to voice their grievances and complaints about the British administration. Over time, the General Congress opened its door to all educated people and transformed from a social and educational organization to a political movement with the help of Egypt (Collins, 1984, pp. 16–20; Johnson, 2003, pp. 21-23; see also Holt (1961, Chapter 9)).

As mentioned above, the Sudanese nationalist movement was not a unified front. While the *Abu Rauf Group*, supported by the Khatmiyya tariqah, favored the unification with Egypt, the *al-Murada-Hashmab Group*, supported by the Ansar/Mahdi movement, was much more racially diversified, anti-sectarian, and anti-Egyptian. From these two groups, two political parties emerged that would leave their mark on Sudanese political history: the *Ashiqqa Party* (later the *National Unionist Party*) led by Ismail al-Azhari and the *Umma Party* led by Sayyid Abd al-Rahman al-Mahdi. It was clear that post-independence Sudan would be divided along religious affiliations since traditional Sudanese society still paid much more allegiance to their religious and cultural identities. Therefore, compared to Sudanese nationalism, religious and cultural affiliations were much more easily utilized by the rival al-Mirghani and al-Mahdi families to garner mass support for their political positions. In the meantime, to appease the growing nationalist demands, the British established an *Advisory Council* in which the Northern Muslim local chiefs dominated and excluded the representation and demands of the non-Muslim South. Although the British aimed to keep Egypt out of

Sudan on the way to independence in a controlled manner, a military coup by the *Free Officers Movement* in Egypt (1952) changed the fragile political situation. The new military rule was inclined to work with the British to give Sudan independence. In the 1953 election, al-Azhari and his Nationalist Unionist Party (NUP), supported by the al-Mirghani family/Khatmiyya tariqah, won the majority of the representative parliament. For most Sudanese, the Umma Party and al-Mahdi family/Ansar were seen as veiled tools of the British administration. However, it did not take long for al-Azhari to understand that Sudanese society was also opposed to the unification with Egypt. One year after the *Torit Mutiny*, which triggered the *Anya Nya Rebellion* and first *Sudanese Civil War* (1955-1972), al-Azhari declared the independence of Sudan in 1956. The British thus left Sudan without solving the endemic problems: nation- and state-building (Collins, 1984, pp. 21–27; Johnson, 2003, pp. 23–29; Ofcansky, 2015, pp. 27-31; see also Khalid (2010, Chapters 2-3); Holt (1961, Chapters 10-11)).[144]

The seeds of the 1955 Torit Mutiny were, in fact, sowed with the *Sudanization* policy in which the aim was to appoint educated indigenous people to administrative positions. On top of historical discrimination against the Southerners, the Northern nationalist Muslims attempted to hold almost all bureaucratic positions within their hand without acknowledging the demands and grievances of the Southerners. Even the British officers in the Equatoria Corps, for instance, were replaced with the Northern

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[144] For more information about the Sudanese people's perspective on the British administration, please see: Deng. (1984). In the Eyes of the Ruled. In R. O. Collins & F. M. Deng (Eds.), *The British in the Sudan, 1898-1956: The Sweetness and the Sorrow* (pp. 216–244). Palgrave Macmillan. To compare the British and French colonial rules and their legacies on colonized societies, please see: Athow & Blanton. (2002). Colonial Style and Colonial Legacies: Trade Patterns in British and French Africa. *Journal of Third World Studies, 19*(2), 219–241; Blanton et al. (2001). Colonial Style and Post-Colonial Ethnic Conflict in Africa. *Journal of Peace Research, 38*(4), 473–491.

Muslim Arabs. To some extent, the Sudanization or, more accurately, *Northernization* policy was legitimated by the lack of adequately educated and experienced Southerners. However, the Northerners did also not have much knowledge and experience about the South due to the Closed District Ordinance. Furthermore, the fact that the British, who were seen as a protection against the Northern dominance, would leave Sudan also caused existential fears among the Southerners. Interestingly, although the mutiny spread to the different parts of the South, it did not gain enough social support since most Southerners saw the Equatoria Corps as the coercive apparatus of the colonial administration. On the other hand, the British supported the al-Azhari government to contain the mutiny rather than protect the Southerners. Many rebels thus either fled to Uganda or hid in the bushes and formed the first Anya Nya and *Sudan African Nationalist Union* (SANU), a separatist rebel group and party, respectively. Despite all these problems of the Torit Mutiny, the Southerners nevertheless recognize the mutiny as the beginning of the First Civil War (1955-1972) (Johnson, 2003, pp. 27–29; see also Khalid (2010, Chapter 3)).

In 1958, when General Ibrahim Abboud took power by a military coup, the al-Azhari and the successor PDP-Umma collation government led by Abdallah Khalil were still struggling with two issues: establishing (i) a unitary *versus* a federal state and (ii) a secular *versus* an Islamic state.[145] In general, the ultimate aim of the North was to

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[145] After some Khatmiyya followers in the NUP defected to form a new political party, the People's Democratic Party (PDP), in 1956, the Umma Party formed a coalition with the PDP in order to overthrow the al-Azhari government in the upcoming 1958 election. With the help of this coalition, pro-Mahdist Abdallah Khalil became the second civilian prime minister of Sudan. Al-Azhari's avoidance of sectarian politics led two rival groups to form a coalition to overthrow his government. The PDP-Umma alliance, however, was not long-lived, and the historical power struggle between the Khatmiyya and Ansar re-emerged shortly. Despite many promises to the South, both civilian governments did not take a step to change the Northern dominant position. In the hope of ending the civil war in the South, rebuilding

establish a unitary Islamic state, whereas the South demanded a federal secular state. The division in the North between the secularists and Islamists and the rejection of the Northern vision by the South were the main reasons why the civilian governments were not able to reach a compromise between fiercely rival actors. After a short period of time, it became clear that the military junta was also far from providing solutions to Sudan's endemic social, political, and economic problems. General Abboud, for instance, declared a state of emergency, banned all political parties, imposed *Islamization* and *Arabization* policies on the South, and expelled all missionaries from the South. As a result of a growing authoritarian administration and implementing draconian policies, General Abboud started to lose his popularity and stepped down in 1964 due to broad popular uprisings known as *October Revolution*. The South, on the other hand, started to consider armed violence the only option and thus formed the Anya Nya rebel group in 1963. In the political arena, the SANU, led by William Deng, mainly represented the Southern demands and concerns. Although the Umma Party won the 1965 election, the internal division within the party led to an ineffective government in dealing with Sudan's endemic social, economic, and political problems, which caused another military coup in 1969 (Ofcansky, 2015, pp. 31–36; Johnson, 2003, pp. 29-36; see also Khalid (2010, Chapter 3)).

Involved in several coup attempts against General Abboud, Jaafar al-Numayri succeeded in seizing power with the 1969 military coup, also known as *May Revolution*. Like other coup leaders, al-Numayri justified his coup on the grounds that he would restore democracy, end the ongoing civil war in the South, and fix the economy. After

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democratic rule, and then relinquishing it to civilian rule in a short time, Abdallah Khalil handed over power to the army in 1958 (see Khalid (2010, Chapter 3)).

controlling the power of traditional Muslim groups, such as Ansar, al-Numayri also dealt with the communist groups that attempted a coup against him. Alienating Muslim and communist groups to his rule, al-Numayri aimed to get Southern support by ending the ongoing civil war in the South. To this end, al-Numayri promised Southern leaders regional self-government and economic development projects. Meanwhile, in the South, Joseph Lagu formed the *Southern Sudan Liberation Movement* (SSLM) in 1971, supported by Ethiopia, Uganda, and Israel. In 1972, all the conditions were ripe enough for the *Addis Ababa Agreement* since the al-Numayri government was inclined to end the civil war for political considerations, and the South was unified under the leadership of Joseph Lagu. At first, al-Numayri was seen as the savior of the South against the Northern dominance, but it soon became clear that there were problems in the implementation of the agreement terms. These implementation issues were mainly clustered around two areas: (i) the meaning of regional autonomy and (ii) the security of the South. While the concept of regional autonomy meant federation to the SSLM, the status of former Anya Nya rebels was another concern for the South. It is important to note that from signing the Addis Ababa Agreement in 1972 to the onset of the Second Civil War in 1983, the *Southern Regional Government* was not autonomous as written in the agreement. Many times, al-Numayri intervened in the South, from economic projects to electoral processes, by utilizing internal divisions. Despite all these obstacles that the South faced, the Northern Muslims continued to consider the agreement a surrender to the non-Muslim South and took part in three coup attempts against al-Numayri. Realizing after the 1977 election that his social support was declining, al-Numayri turned away from the idea of a socialist state and focused on gaining the support of Northern Muslim groups and the West through the *national reconciliation*

policy. Although the economic bases of the Second Civil War were essentially related to where the Southern boundaries would be at the point of determining the water and oil resources and the use of Nile waters through the *Jonglei Canal*, the final blow came at a time when al-Numayri declared the breaking up of the southern autonomous region, disarming of and then transferring the southern military units to the North, and finally, the imposition of the *September Laws* based on Sharia throughout the country.[146] The failure of the promises made to the South and the re-implementation of discriminatory policies, combined with international economic embargoes and the drought-affected economic crisis, resulted in the overthrow of the al-Numayri regime in 1985 by another military coup after a popular uprising known as *intifada* (Ofcansky, 2015, pp. 36-42; see also Johnson (2003, Chapter 4); Kaufman (2015, Chapter 3)).

5.3 al-Bashir Era (1985-2005)

In line with the background information above, it was expected that the Southern Animist and Christian Nilotic people, who were historically oppressed by the Northern Muslims and thus have a negative collective memory against the North, would revolt against the implementation of Sharia by al-Numayri throughout the country. But this time, compared to the Anya Nya I, the southern rebel group SPLA led by John Garang

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146 The September Laws were derived from Islamic Sharia, including, for instance, the banning of drinking alcohol, the implementation of *zakat* (an Islamic form of purifying personal wealth through donation), the application of *hudud* penalties (harsh Islamic criminal penalties), and the implementation of Islamic laws in Sharia courts by newly appointed *qadis* (judges). Furthermore, despite being a socialist and consuming alcohol, al-Numayri stopped drinking and gambling, started performing the Friday prayers every week and dressing like an Islamic sheik, organized Holy Qur'an festivals, wrote a book about on the Islamic form of government, and established an Islamic bank in order to appear like a devout Muslim leader in the eyes of the Sudanese people. For more information on what al-Numayri did after 1977 to gain the support of northern Muslims, please see: Kaufman (2015, Chapter 3) and Kramer et al. (2013, Introduction: Post-Independence).

was more organized and dedicated to achieving the status of equal citizenship, either in a unitary or federal secular Sudanese state. The North, on the other hand, embarked on a social engineering project in order to create a unitary Islamic state of Sudan, masterminded first by al-Turabi and perpetuated by al-Bashir after the two fell apart in 1999. Although ethnic and religious discourses uttered by both the Northern and Southern leaders seemed to be in the foreground during the second Sudanese Civil War (1983-2005), the main issue was on how to demarcate the lines between the North and South since the region around Abyei and Bentiu was home to oil fields. In order to control the Southern oil-rich areas, the *National Islamic Front* (NIF) regime declared jihad against the Animist and Christian South and followed a systematic intimidation policy, such as supporting pro-government militias, utilizing famines as a counterinsurgency strategy, and manipulating international relief aid, *et cetera*. Considering that the NIF regime's support for international terrorism became more visible, particularly after the 9/11 attacks, and that the government forces' gross human rights violations in its war against the South became the headlines in the newspapers, particularly after the uprising in Darfur in 2003, the international community put the NIF regime under intense economic and political pressure, thus pushing the NIF to sign a peace agreement with the SPLA in 2005.

5.3.1 Transitional Government, Palace Coup & NIF Regime

The al-Numayri era (1969-1985) that started with the May Revolution ended with a military coup led by General Siwar al-Dhahab. The *Transitional Military Council* (TMC) and the *Transitional Government* established after the coup mainly consisted of senior officers of the al-Numayri regime. So much so that the leader of the SPLM/A, John Garang, called the TMC a new "Numayri regime without Numayri" (Khalid, 2010,

Chapter 6). In the following years, confirming what Garang said, the al-Bashir government rewarded the TMC cadres within the NIF. Despite the SPLM's calls for democratic governance and a pluralistic negotiation process, the TMC remained aloof and turned down most of the SPLM's conditions for a peace process.[147] In the 1986 election, which was held without any notable changes in the Sudanese political and social structure, the Umma Party won most of the seats in the parliament, and Sadiq al-Mahdi reemerged as the Prime Minister. Ahmad al-Mirghani of the *Democratic Unionist Party* (former NUP) became the President, while both the Southern political parties and the NIF were excluded from the government. Soon after, however, the historical animosities between the al-Mahdi and al-Mirghani families re-surfaced on how state resources would be shared within the Umma-DUP coalition. Seeking to strengthen his weakening political position, al-Mahdi formed a new coalition with the NIF and appointed Hassan al-Turabi as the Minister of Justice. Prime Minister Sadiq al-Mahdi, trying to manage both peace negotiations with the SPLM/A and the demands of the NIF for the implementation of the Sharia law simultaneously, was ousted by a bloodless military coup led by Brigadier Omar al-Bashir in 1989.[148] In fact, the coup

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[147] In 1986, for instance, the SPLM and several Sudanese political parties met in Ethiopia in order to discuss the conditions for a peace process with the central government. At the end of the four-day-long negotiation, the *National Alliance for National Salvation* declared an agreement on how to create a 'New Sudan,' called the *Koka Dam Declaration*. The agreement urged all the parties to eliminate all forms of discrimination, repeal the September Laws, abolish all the military pacts between Sudan and other states, adopt the 1954 Constitution, and declare a ceasefire. Except for the NIF and DUP, though the latter signed the document later, all major parties signed the Declaration. Despite such a consensus on the Declaration, the TMC rejected the conditions of a peace process elaborated in the agreement. For more information on the Koka Dam Declaration, please see: Kramer et al. (2013). 'Koka Dam Declaration (24 March 1986)'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

[148] For more information on Sadiq al-Mahdi's political maneuverings for personal power without an ideological stance, and thus many times led his political career and the country to political catastrophes, please see Khalid's critiques of al-Mahdi's political style (2010, Chapter 9).

d'état was carried out after President al-Mirghani agreed with SPLM/A leader Garang for the *Sudan Peace Initiative*, and Prime Minister al-Mahdi tacitly supported the process. Seeking to form a new coalition with the DUP and thus make peace with the SPLM/A, al-Mahdi dissolved his coalition with the NIF. Seeing that Prime Minister al-Mahdi had given up the Islamization project of Sudan, the NIF leader al-Turabi declared jihad against the South, and in return, John Garang declared a ceasefire for the establishment of a new government that was expected to implement the al-Mirghani-Garang accord. Given that the Sudanese bureaucracy started to be dominated by the NIF cadres since the al-Numayri era, it was not a surprise that a NIF-affiliated group of officers overthrew the al-Mahdi government (Khalid, 2010, Chapter 6; Kramer et al., 2013, Introduction; Ofcansky, 2015, pp. 42–44).

Contrary to the higher expectations from the civilian rule, Sudan's third democracy experiment (1986-1989) was, once again, concluded by a military coup led by Brigadier Omar al-Bashir on the grounds that Prime Minister al-Mahdi did not act decisively on both the Islamization of Sudan and how to end the ongoing war with the South. Soon after, the *Committee of Forty* declared that the aim of the coup was to establish a unified Islamic Sudan based on Sharia. As the former military regimes did after the coups, the military junta called the *National Salvation of Revolutionary Command Council* (RCC) restricted political life to a great extent by banning all parties, arresting political leaders, abolishing the constitution, *et cetera*, which over time decreased the popular support for the junta. Unknown disappearances of dissident voices after being held in *ghost houses* (detention centers) by the newly re-constructed intelligence service *Internal Security Bureau* were known unknowns at that time. Consequently, by the winter of 1989-1990, Sudan started to experience a brain drain in

which many skilled Sudanese sought refugees in other countries for a better life. In 1993, however, the RCC disbanded itself and paved the way for establishing the *Transitional National Council* and *Assembly* instead, both dominated by the *National Congress Party* cadres (successor of the NIF after 1998). After these changes, Omar al-Bashir, who aimed to continue the Islamization policy started by al-Numayri, thus causing many gross human rights violations against Muslims and non-Muslims alike in the following years, became the new President of Sudan. In the first election in 1996 following the coup, the NIF won the majority of the parliament as the sole legitimate party in the government (Collins, 2008, pp. 187–191; Ofcansky, 2015, pp. 44–50; see also Kramer et al., (2013, Introduction)).

In fact, during the intifada that brought the end of the al-Numayri era, the *Muslim Brotherhood*-affiliated[149] National Islamic Front was not a part of the intifada. The key players were rather traditional political parties and trade unions, united under the banner of the *Alliance for National Salvation*. Even though the NIF did not take the lead in the

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[149] Also known as *al-Ikhwan al-Muslimun*, the Muslim Brotherhood was founded by Hassan al-Banna as a religious and political organization in Egypt in 1928. Advocating for a Sharia-based government, the Brotherhood started its activities in Sudan in the 1940s but officially established its Sudan branch in 1954 by collaborating with another Islamic organization called the *Islamic Liberation Movement*. Apart from the al-Mahdi and al-Mirghani families, the Brotherhood developed its own politico-religious agenda under the leadership of Gordon College graduate al-Rashid al-Tahir Bakr. Although the Sudanese Branch inherited the organizational structure from Egypt, Hassan al-Turabi became the new leader after being made changes in the organizational structure in 1962. Once finishing his Ph.D. at Sorbonne University in Paris in 1964, al-Turabi became the secretary-general of the Brotherhood and the dean of the Faculty of Law at Khartoum University. After the 1969 May Revolution, al-Numayri oppressed the Brotherhood along with other Islamic organizations. However, with al-Numayri's policy of Islamization after 1977, the Brotherhood gained momentum in both Sudanese social and political lives. In 1983 when al-Numayri declared the September Laws, for instance, al-Turabi was already appointed as the Attorney General. Particularly after the 1989 military coup, the Brotherhood (the National Islamic Front since 1976) increased its social base by absorbing other Islamic organizations. For more information about the Muslim Brotherhood, its founder Hassan al-Banna, its Sudanese Brach, and how it turned into the NIF by al-Turabi, please see: Kramer et al. (2013). 'Muslim Brotherhood'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.; Euben & Zaman. (2009). *Princeton Readings in Islamist Thought: Texts and Contexts from al-Banna to Bin Laden*. Princeton University Press. (pp. 49-78).

popular uprising against the al-Numayri regime and the RCC hid the leading role of the NIF in the coup,[150] the mastermind behind the *palace coup* was an Islamic ideologist: Dr. Hassan al-Turabi, an Islamic jurist with a Ph.D. from Sorbonne University.[151] Although al-Turabi was known for his liberal interpretation of Islam in the West, he was not hesitant to give a *fatwa* (a ruling on a point of Sharia) for jihad against Muslim and non-Muslim populations, such as non-Muslim Nilotic people in the South and Muslim Nuba people around the Nuba Mountains, who were not deemed as the constitutive elements of Sudan by the North. Given that he aimed to integrate liberal democratic values with Islam, al-Turabi had oftentimes been criticized for hypocrisy, particularly since he exhibited an ambivalent stance on jihad. Besides such an intellectual desire, Hassan al-Turabi aimed to implement his ideas by constructing an Islamic state through a gradual Islamization of the Sudanese society.[152] In the Islamic sphere of Sudan, in

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[150] Ten years after the 1989 coup, al-Turabi disclosed that the military coup was totally a NIF project (Khalid, 2010, Chapter 7). So much so that, to camouflage that the NIF was the primary power behind the coup, al-Turabi voluntarily confined himself to prison with other political leaders by the RCC order. As an indication of his symbolic imprisonment at that time, almost all the NIF cadres, including Omar al-Bashir, took the *bay'a* (oath of allegiance) to al-Turabi after his release from prison. During his confinement in prison, al-Turabi explained his Islamic vision of Sudan and tried to persuade other imprisoned political leaders of his ideas (Collins, 2008, pp. 185–187).

[151] Although al-Turabi advocates a representative democracy relying on consultation and with limited executive powers, his ideas were at odds with the Sudanese experience under the NIF regime. For more information about al-Turabi's idealistic, though oftentimes conflicting and pragmatic, political views on democracy, state, and jihad, and in what historical and intellectual context such political views were developed, please see: Euben & Zaman. (Eds.) (2009). *Princeton Readings in Islamist Thought: Texts and Contexts from al-Banna to Bin Laden*. Princeton University Press. (pp. 207-223).; De Waal & Salam. (2004). Islamism, State Power and Jihad in Sudan. In A. de Waal (Ed.), *Islamism and Its Enemies in the Horn of Africa* (pp. 71-113). Indiana University Press.; Khalid. (2010). *War and Peace in Sudan: A Tale of Two Countries* (Kindle Edition). Routledge. (Chapter 7).

[152] According to De Waal & Salam (2004, pp. 83–89, 100-106), however, the Islamization project of al-Turabi never kept its distance from violence and pragmatism as long as the NIF regime held political power. The gross violations of human rights and freedoms in the al-Turabi years were the result of these contradictory Islamist ideas and practices.

which many sects, such as the Mahdiyya, Khatmiyya, and *Fallata*,[153] and many prominent Islamic figures, such as Sadiq al-Mahdi and Mahmoud Mohammed Taha,[154] coexist, al-Turabi first started his project by transforming the Sudanese society through Islamic social organizations and, over time, moved this transformation into a political dimension by forming pragmatic coalitions even with secular forces. In 1977 when al-Numayri started his reconciliation policy with Islamist forces in order to get public support from the Muslim North for his weakening regime, al-Turabi found the opportunity he had been looking for a while. Established in 1976 as the Sudan branch of the Muslim Brotherhood, the NIF exploited the al-Numayri era to gain more power and support. Although alTurabi was appointed as the Attorney General of Sudan by al-Numayri in 1979 and many NIF cadres began to take part in the administration and army thereafter, al-Turabi did not play a role in drafting the 1983 Sharia-based September Laws. Nevertheless, just before the 1985 coup d'etat, al-Turabi was able to leave his coalition with al-Numayri and thus would play a decisive role in the trajectory of Sudanese politics through the 1989 bloodless coup (De Waal & Salam, 2004, pp. 71–83; see also Khalid (2010, Chapter 6-7)).

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[153] A pejorative term used for West Africa-origin Hausa and Fulani people occupying with agriculture in the western parts of Sudan. Despite being Muslim, the Muslim North sees these people as inferior in terms of culture. Many settled in western Sudan due to financial hardships while trying to make the pilgrimage to Mecca via Darfur. For more information about the Fallata, please see: Kramer et al. (2013). 'Fellata'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

[154] Established the *Republican Party* in 1945, Mahmoud Muhammed Taha, also known as *Ustaz Taha*, favored Sudanese independence. Although he did not ally with any other party in Sudan and had no electoral success, Taha and his party became more active in advocating Islamic reforms in the Abboud regime during the 1960s. Due to his book, the *Second Message of Islam*, in which he made a difference between the verses (*ayahs*) of the Qur'an revealed in Medina and Mecca, Taha was found an apostate (*murtad*) and executed by the al-Numayri regime in 1985. For more information on Mahmoud Muhammed Taha and his Republican Party, please see: Kramer et al. (2013). 'Republican Party (I)'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

During the 1990s, Hassan al-Turabi, who seized power under the shadow of Omar al-Bashir, accelerated his Islamization project (*da'wa*) to establish an Islamic state by transforming Sudanese society. In this regard, he started a series of initiatives in and out of Sudan by utilizing the state apparatus and resources. To transform society in a gradual but systematic way through Islamic social organizations providing education, and social and financial services, the *Ministry of Social Planning* was established, and Ali Osman Taha was appointed as the Minister. The Islamization efforts were staffed with volunteers and carried out mainly in the South, where most Christian and Animist ethnic groups lived, and the SPLA operated. By da'wa, the NIF aimed to achieve two goals: (i) the Islamization of the population and thus (ii) the pacification of the SPLA. In addition to such persuasion-based strategies, the NIF did not hesitate to use coercive state power. In social life, for instance, women were forced to abide by the Islamic dress code by the *Popular Police Force*. Furthermore, women were publicly discriminated against in business life in which they were not seen as equals to men.[155] Amending the Sudan Penal Code in order to make it comply with Sharia, apostasy became subject to the death penalty. Moreover, everyone, whether Muslim, Christian, or Animist, was subject to *hudud* penalties, including amputation for stealing, stoning for adultery, and public flogging for prostitution. In the field of security, on the other hand, a more organized militia force called the *People's Defence Force* (PDF) was formed against the SPLA by imposing military conscription for the youth. With such security measures, the NIF aimed to indoctrinate/Islamize the youth in military camps, thus creating a much more Islamic military wing as an alternative to the *Sudanese Armed Forces* (SAF)

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[155] Ironically though, al-Turabi was married to a famous feminist, Wisal al-Mahdi: the sister of Sadiq al-Mahdi, who was one of his most important political rivals (Collins, 2008, p. 191).

(Collins, 2008, pp. 191–194; De Waal & Salam, 2004, pp. 89–93; see also Khalid (2010, Chapter 7)). In brief, in the early 1990s, it was understood by the SPLM/A that the NIF regime would not compromise on the Sharia-based September Laws initiated by al-Numayri in 1983. Instead, al-Turabi and the NIF cadres accelerated the project of establishing an Islamic state through the Islamization of Sudanese society, which would fail in the coming years.[156]

After consolidating his Islamization project that he started within Sudan, al-Turabi made an international effort to export the Sudanese experience to other Muslim societies. In this regard, the first opportunity for al-Turabi came when Iraq was defeated by the US coalition in the First Gulf War (1990-1991). Given the humiliation of an Arab nation by secular Western and Arab states and thus created a religious fervor in the Islamic world, al-Turabi thought that his ideas could come to fruition among Muslims throughout the world. In 1990, for instance, al-Bashir announced a new visa policy that Muslim Arabs could enter Sudan without holding a visa, which paved the way for Sudan to meet with radical Islamist groups, such as *Afghan-Arab mujahideen*. Furthermore, in 1991, al-Turabi established the *Popular Arab and Islamic Congress* (PAIC) in Khartoum as a forum for Islamic revolutionists. As a permanent secretary of the PAIC, al-Turabi also facilitated the creation of the *Armed Islamist Internationale*, an umbrella organization for Islamic terrorism. By 1992, al-Turabi had become a well-known figure in the Muslim world by distributing his publications, including essays, tape recordings,

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[156] According to De Waal & Salam (2004, pp. 93–100), the da'wa was unsuccessful because of four primary reasons: (i) the institutional capacity of the Islamization project was very limited in the South, (ii) the economic model, including Islamic banks, funds, and practices, did not reveal the promised development, (iii) the non-Muslim South was not enthusiastic about embracing the project, and last, (iv) the project was entrapped with ethnic cleavages since Islam does not have a proposition/argument about sub-*ummah* (the community of Muslims) social groups, such as ethnicities.

radio broadcasts, and videos. As a result of these policies, Sudan had become the hub of jihadists where they were trained in secret military bases.[157] Due to its open or covered support for Islamic terrorist organizations/attacks, such as the 1993 World Trade Center bombing, Sudan had been accused of being a rogue state by the international community and was added to the category of state sponsors of terrorism by the US. All in all, by 1994, al-Turabi's Islamist ideology penetrated every aspect of life in Sudan, be it cultural or military (Collins, 2008, pp. 194-200; De Waal & Salam, 2004, pp. 75-83; see also Khalid (2010, Chapter 7).

5.3.2 Formation of SPLA, Militia Forces & Early Splits

Looking at the developments in the South, the 1980s came to the fore with the establishment of the SPLA under the leadership of John Garang, a Dinka-origin former head of the Staff College who had a Ph.D. in agricultural economics from the US.[158] It

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[157] It is important to note that after the Soviet forces were defeated by the mujahideen in Afghanistan in 1988, the leader of the terrorist organization *al-Qaeda*, Osama bin Laden, also came to Sudan for organizing and leading the jihad through funds from the Gulf states. Bin Laden was welcomed by the NIF regime: he was exempted from customs duties and married to al-Turabi's niece, and in return, he pledged $5 million to the PAIC. Furthermore, some al-Qaeda members were given diplomatic passports and Sudanese citizenship. As a result of these facilities provided by the NIF regime, bin Laden established several umbrella companies in order to manage the incoming funds: he purchased military equipment and used them for training would-be jihadists in secret military bases around Khartoum's semidesert areas. In turn, al-Turabi and the NIF used the network of al-Qaeda for its international activities under the name of the PAIC. In 1996, after the US sanctions and pressures against Sudan, bin Laden had to leave Sudan in order to shift his base into areas ruled by the *Taliban* in Afghanistan (Collins, 2008, pp. 196-197; cf. FBIS Record (1996)).

[158] As the founding father of South Sudan, John Garang (1945-2005) was born into a Dinka family but became orphaned at the age of 11. In the 1960s, he fled to Uganda and became friends with future Ugandan President Museveni at a secondary school. In the 1970s, he went to the US to pursue his bachelor's degree and participated in the Anya Nya I. After the 1972 Addis Ababa Agreement, Garang entered the SAF and became the chief aide of Southern General Joseph Lagu. In 1974, he returned to the US for military training and then got his Ph.D. in agricultural economics. Upon his return to Sudan, he began teaching at the Staff College and the University of Khartoum due to his military and academic credentials. When the 1983 *Bor Mutiny* erupted, Garang was a colonel in the SAF. Despite being sent by al-Numayri to mediate with the mutineers, Garang joined them and took the position of the SPLA's

is important to note that although many Anya Nya I guerillas accepted the conditions of the 1972 Addis Ababa Agreement, some were skeptical about the al-Numayri regime's credibility and thus maintained their military presence with the support of neighboring countries, namely Ethiopia and Uganda. This dissident guerilla group then formed the *Anya Nya II* in 1978. Furthermore, with al-Numayri's re-implementation of Sharia and his order to transfer the *Southern Command* to the North in 1983, Southern soldiers mutinied in *Bor*. The Southern rebellion in the early 1980s seemed disunited and thus was easy to be controlled by the al-Numayri regime. Therefore, al-Numayri sent John Garang to Bor to mediate with the mutineers, but he took refuge in Ethiopia along with them. By 1983, Garang succeeded in unifying the rebels under the banner of the SPLA to a large extent, despite the use of the Anya Nya II by al-Numayri against him. The SPLA's manifesto mainly emphasized three points regarding the causes of the rebellion: (i) the (deliberate) failures to implement the 1972 Addis Ababa Agreement by the al-Numayri regime, (ii) the unequal development between the North and the South since independence, and (iii) the attempt of successive regimes to establish a Sudanese identity based on Arab culture and Islam (see FBIS Record (1985a)).[159] The SPLA's

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commander-in-chief. After long years of struggle with the NIF regime, Garang was able to force the Khartoum government to sign the 2005 Comprehensive Peace Agreement and thus became the Vice President of Sudan. Only seven months after the CPA, Garang was killed in a helicopter crash in Equatoria. As a successor of Garang, Salva Kiir became the first President of South Sudan after the 2011 Referendum on separation. For more information on Garang's life, please see: Kramer et al. (2013). 'Garang de Mabior, John (1945-2005)'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

[159] It is important to note that the SPLA's grievances and the causes of the 2003 Darfur Crisis were largely similar: (i) the domination of the Northern Muslims and (ii) the marginalization of other non-Muslim ethnic groups in Sudan's political, economic, social, and cultural life by the successive post-independence Khartoum governments. The grievances of the Fur people were detailed in *The Black Book*, thought to be written by the *Justice and Equality Movement* (JEM). Such a similarity in grievances also reveals how discriminatory policies are an endemic problem in Sudan, not just between the North and the

proposed solution was to unite all rebel groups against Sudanese elites, be they from the North or South, who merely focused on maintaining their status and parochial interests. By not positioning itself/himself against the Northern Muslim groups, the SPLA/Garang demonstrated that it/he invoked a unifying solution for all Sudanese, not just the Southerners. However, emphasizing the unitary state form and an encompassing national identity would lead to internal divisions within the SPLA, which the regime and external actors exploited in the ensuing years. By supporting such local anti-Dinka Nuer militias against the SPLA in the *Equatoria* region, the al-Numayri and successive regimes aimed to rekindle the historical Nuer-Dinka conflicts emanating from resource competition in order to control the SPLA in the South. With this strategy, the successive Khartoum governments were able to depict the Southern rebellion as a tribal conflict to the international community and conduct its counterinsurgency operations through local surrogates (Johnson, 2003, pp. 59–70; see also Jok & Hutchinson (1999); Khalid (2010, Chapter 8); Young (2003)).

In fact, the strategy of using local militias against the SPLA started after the 1986 election when Sadiq al-Mahdi became the Prime Minister. Since al-Mahdi did not have inroads within the army like the Khatmiyya and the Muslim Brotherhood, he was inclined to conduct a proxy war in the South through surrogates, such as the *Messiria* and *Rizeigat Murahaleen*, militia forces of the Baqqara Arabs who adhered to the Mahdi movement. Many Sudanese, who suffered from drought-induced economic hardships in the early 1980s, participated in these militia groups for security and survival. In addition

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South but between the center and periphery (see De Waal (2007a)). To compare the JEM's grievances with the SPLA, please see: El-Tom. (2011). *Darfur, JEM and the Khalil Ibrahim Story, with a Complete Copy of The Black Book: Imbalance of Power and Wealth in Sudan* (1st Edition). Red Sea Press. (pp. 227-346).

to the loss of their livestock due to droughts, mechanized agriculture schemes recommended by the World Bank and financed by al-Turabi's Islamic banking system also took away their land-use rights. Furthermore, many Northern Arabs started to raid the Southern regions in order to compensate for their loss of assets during drought periods (see FBIS Record (1990), (1992)). These pro-government militia forces, for instance, caused many gross human rights violations against the Dinka population, such as the abduction of women and children, which were denounced as slavery by the international media. Considering that the civilians had become the frequent target of the Murahaleen, Prime Minister al-Mahdi tried to regularize pro-government militias under a separate military force. Despite other senior officers in the army opposing this military strategy, Brigadier Omar al-Bashir played a role in its development. In brief, for many drought-stricken Northern Sudanese, participating in such militia forces was a security umbrella against looting and banditry and a tool to make a living. By 1989, however, the SPLA was militarily capable enough to secure its northern borders from these Baqqara Arab militias (Johnson, 2003, pp. 81–83; see also Prendergast (1991); Khalid (2010, Chapter 9)).

It is important to note that from its formation in 1983 until 1987 when it changed its strategy, the SPLA was not so popular among the Southern population.[160] Expecting

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[160] The SPLA's initial strategy was to use force to neutralize the civilian population assisting the pro-government militia forces in Equatoria and Bahr-al Ghazal. In 1987, however, the SPLA acknowledged the importance of public support in controlling areas after liberation from the militia/government forces. Therefore, it changed its military strategy to use mobile units by forging deep links with the Southern population. This change increased public support for the SPLA, and several formerly pro-government militias switched to their cause. As a result, the SPLA had gained important military victories against the government forces by the early 1990s when it, once again, switched back to conventional warfare. The SPLA's military rise, however, would be reversed by the split between John Garang and Riek Machar in 1991 (Johnson, 2003, pp. 83–84).

a quick military victory with external support from Ethiopia, Libya, and the Eastern Bloc countries (see FBIS Record (1995)), the SPLA did not make the necessary investment in forging deep links with the Southern population. Instead, the SPLA was formed as a purely military rebel organization under the strong leadership of John Garang. Despite the SPLA having formal units and procedures to promote intra-organization democracy, John Garang held a dominant position in the organization along with other Dinka leaders. The first convention, for instance, was held in 1994: 11 years after its establishment. The overemphasis on leadership was also related to the lack of a clear ideological stance within the SPLA. Despite its declared Marxist goals, the intraorganizational debates/splits generally stemmed from personal power struggles rather than ideological nuances. Given its participants' lack of ideological motivation, the SPLA allowed, and even sometimes encouraged, personal business ventures in Sudan's civil war-induced informal economy, such as smuggling and looting.[161] In addition to Garang's single-handedly authoritarian rule and the Dinka's dominant position in the SPLA at the expense of the Nuer, the idea of establishing a unitary secular state, known as *New Sudan*, also caused strife among other opposition groups and later splits within the SPLA during the 1990s. Unable to form an encompassing national identity since its independence, Sudan embarked on a new attempt to form a new Sudanese identity under Garang's leadership, in which ethnic, religious, tribal, and regional sub-identities would be melted under one overarching national identity: *Sudaneseness*. Nevertheless, Northern and Southern people did not welcome such an

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[161] Given the ruthlessness and indiscipline of the SPLA forces in exploiting the local population, even the local Dinka people formed anti-SPLA milia forces supported by the Khartoum government, known as the *Friendly Forces* (Young, 2003, p. 430).

idea. Even if Garang expressed his support for the New Sudan idea at every opportunity and became a part of the *National Democratic Alliance* (NDA), an alliance formed by opposition groups against the NIF regime in 1989, the idea/project of establishing a unitary secular state did not form a consensus even among the Southern rebels. The Northern traditional political parties were still insistent on a decentralized Islamic state under the firm control of the North, whereas the Southern political parties and rebels were still calling for a separate, at least federal, secular state. In such a political atmosphere in which the Mengistu regime, supporting the SPLA since its formation, collapsed in Ethiopia,[162] the SPLA split into mainly two factions: (i) *SPLA-Mainstream/ Torit* led by John Garang, and (ii) *SPLA-United/Nasir* led by Riek Machar.[163] In

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[162] With the collapse of the Mengistu regime in Ethiopia in 1991, the SPLA lost not just its secure bases but also military/non-military aid, supply lines, and a radio station. Furthermore, many South Sudanese refugees were repatriated to Sudan, where many were put to starvation by the Khartoum government's deliberate policies during drought periods. The *UN World Food Programme*, for instance, was intentionally prevented from running *Operation Lifeline Sudan*, aiming to deliver emergency aid to people affected by droughts-induced famine. The Mengistu regime supported the SPLA because Garang's Dinka forces aided Mengistu in his counterinsurgency operations against Nuer rebel forces supported by the Khartoum regime (Johnson, 2003, pp. 87–90; Collins, 2008, pp. 200-203).

[163] In fact, the SPLA split into three factions after a failed coup attempt against John Garang in 1991: the SPLA-Mainstream/Torit led by Dr. John Garang (Dinka), the SPLA-United led by Dr. Riek Machar (Nuer), and the SPLA-Nasir led by Dr. Lam Akol (Shilluk). The main causes of the split were (i) Garang's authoritarian rule, (ii) the Dinka's dominant position in the SPLA, and, more importantly, (iii) the disagreements over Garang's New Sudan vision. While Garang supported a unitary, secular, and democratic state, the dissidents favored an independent Southern state. After the 1991 split, South Sudan experienced a civil war-within-a civil war, in which Machar's Nuer forces massacred 2,000 Dinka civilians in Bor, known as the *Bor Massacre*. Militarily weak against Garang's SPLA-Mainstream/Torit, the other two factions united under the SPLA-United/Nasir began receiving government support in 1992. After a short while, however, Machar and Akol separated ways, and while Akol continued using the SPLA-United/Nasir, Machar changed its name to the *South Sudan Independence Army* (SSIA). After signing the 1997 *Khartoum Agreement* under the slogan of peace from within, these anti-Garang factions were united under the *South Sudan Defence Forces* (SSDF) by the Khartoum government in order to undermine the unity and power of the SPLA-Mainstream/Torit and secure oil fields from the SPLA control. Although Riek Machar aimed to rebuild the SSIM after giving up on the Khartoum Agreement in 1998, his former commanders did not support him due to his lack of credibility and government support. Therefore, he returned back to the SPLA-Mainstream/Torit in 2002 (Jok & Hutchinson, 1999, pp. 127–130; Young, 2003, pp. 430–432; see also Johnson (2003, Chapter 7-8)).

addition to supporting Machar's forces against the SPLA-Mainstream/Torit, the Khartoum government also used another Nuer rebel organization to undermine the power of Garang and Machar, thus preventing Southern oil field areas from the attacks of the two rebel leaders: the *South Sudan Unity Army* (SSUA) led by Paulino Matip Nhial. With this divide-and-rule tactic, the NIF regime was able to extend the ongoing civil war by hindering the unity of Southern rebel forces against government forces and thus control the Southern oil fields to the Northern advantage (Johnson, 2003, pp. 83–90; Collins, 2008, pp. 203-209; see also Jok & Hutchinson (1999); Johnson (2003, Chapter 7-8); Khalid (2010, Chapter 8-9); Young (2003)).

While the SPLA was dealing with the internal strife, there was a slowly burgeoning development in the North: the NIF regime was about to fall apart due to the power struggle between al-Turabi and al-Bashir. In fact, al-Turabi and al-Bashir did not agree with each other on many issues. Al-Turabi approached many issues from a more ideological perspective, whereas al-Bashir was more pragmatic in dealing with them. The first disagreement arose during the First Gulf War in 1991. While al-Turabi supported the occupation of Kuwait by Saddam Hussein for the sake of military aid and criticized the subsequent First Gulf War (1990-1991) as a Western attack against Islam, al-Bashir was fiercely opposed to the occupation from the very beginning and did not take a harsh stance towards Arab countries supporting the US coalition forces. Furthermore, al-Turabi's ties with radical Islamic organizations through the PAIC and his support for terrorist attacks against the West, such as the 1993 World Trade Center bombing and the 1998 terrorist attacks against the US embassies in Nairobi and Dar es

Salaam[164], generated a concern within the NIF that Sudan would be considered a pariah state by the international community.

In the Arab world, on the other hand, Syrian President Hafez al-Assad and Egyptian President Hosni Mubarak were disturbed by al-Turabi's support for the banned Muslim Brotherhood in their countries. Egypt was particularly worried about al-Turabi's claims on the contested sovereignty of the *Halaib Triangle*[165] on the Red Sea coast (see FBIS Record (1993a)). The final blow to Sudanese relations with Egypt and the Arab world, however, came with an assassination attempt against Mubarak when he arrived in Addis Ababa to attend the 1995 Organization of African Unity (OAU) annual meeting. After a short while, Ethiopia announced that Sudan was behind the conspiracy, and the UN Security Council demanded an investigation. This assassination attempt was a turning point not just for the Arab states threatened by Islamist terrorism but also for the West. The emphasis on and support for jihad inside and outside the country by al-Turabi alienated both the Western and Arab states so that even al-Bashir, who had sworn allegiance to al-Turabi, became uncomfortable with the isolation of Sudan. As an indication of this annoyance, the visa policy for the mujahideen, by which they found a safe haven and received military training in Sudan, was abolished by President al-Bashir. Moreover, Osama bin Laden left the country to shift his base to the Taliban-held

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164 Three weeks after the al-Qaeda terrorist attacks against the US embassies in Nairobi and Dar es Salaam, the US Navy retaliated by launching Tomahawk cruise missiles to destroy the *al-Shifa Pharmaceutical Factory* in Khartoum North on the ground that the factory was producing a type of nerve gas, *Empta*. However, it was later revealed that the evidence was dubious (Collins, 2008, p. 239).

165 A disputed territory occupied by Egypt where the border near the Red Sea between Egypt and Sudan is demarcated. The importance of the Halaib Triangle comes from the historical Nile water question between Egypt and Sudan. For more information on the Halaib Triangle, please see: Shinn. (2015). Government and Politics. In L. Berry (Ed.), *Sudan: A Country Study* (5th Edition, pp. 221–298). U.S. Government Printing Office. (pp. 277–278).

areas of Afghanistan with al-Turabi's help, and Venezuelan terrorist Illich Ramírez Sánchez, known as *Carlos the Jackal*, was turned over to French security officials (Collins, 2008, pp. 214–217, 218-221; Ofcansky, 2015, pp. 53-56; Shinn, 2015, p. 226; see also Khalid (2010, Chapter 7)).

5.3.3 Droughts, Famines & Conduct of War

The year 1996 was a turning point for Sudan from many perspectives. In order to alleviate the complaints about his authoritarian rule in the post-coup period, al-Bashir held the first election in 1996. The NIF won the majority of the Parliament as the sole legitimate party; thus, al-Bashir was elected as the President, and al-Turabi became the Speaker of the National Assembly. Although al-Turabi declared several times in the past that he was hesitant to be busy with active politics, he showed that he was a pragmatic parliamentarian rather than a staunch Islamist theologian. Particularly after the 1998 plane crash, in which Vice President Zubair Mohamed Salih was dead, al-Bashir changed his cabinet and passed a draft constitution to increase his presidential powers. On the other hand, the multi-party system, banned since the 1989 coup, was reinstated by the National Assembly. With this change, al-Turabi found an opportunity to increase his power on the *National Council* by reorganizing the NIF into a new party: the *National Congress Party* (NCP). While al-Bashir opposed such changes as they could limit his power in the party, al-Turabi was adamant about expanding his power base with these changes at the expense of al-Bashir. With al-Turabi's guidance, for instance, the NCP General Assembly abolished its Leadership Office and Council. Instead, the NCP established a new *Leadership Authority* loyal to al-Turabi, in which the nominations of vice presidents, ministers, and senior officials had to be approved before ratifying by the Assembly. The next step of al-Turabi, the Secretary-General and

Chairman of the Leadership Authority thereafter, was to draft new legislation transferring the presidential powers to National Assembly, which the NCP controlled. A few days before these changes were voted on, al-Bashir dissolved the National Assembly and declared a state of emergency in 1999. In the end, al-Turabi's attempts to gradually increase his power at the expense of al-Bashir backfired, and thus, the Islamization project was shelved by one of his close followers, President Omar al-Bashir. Unsurprisingly, the split between al-Bashir and al-Turabi was welcomed by Sudan's neighbors and the Arab world as the end of al-Turabi's Islamist regime. Banned from all political activities within the NCP, al-Turabi established a new party, the *Popular National Congress* (PNC), without having loyalists in the army and bureaucracy as in the past. Given that al-Turabi did not have a broad social base as Khomeini had in Iran, losing loyalists in the state apparatus caused detrimental effects on his idea of establishing an Islamic state in Sudan. Furthermore, al-Turabi was jailed by President al-Bashir on the grounds of treason after attempting to join the NDA and signing the memorandum of understanding with the SPLA in 2001 (Collins, 2008, pp. 221–228; Ofcansky, 2015, pp. 5053; see also Khalid (2010, Chapter 7)).

The year 1996 was a critical juncture not only for the splits within the NIF, but also for the Southern rebellion. To overcome the destruction caused by the split with Riek Machar within the SPLA and the collapse of the Ethiopian Mengistu regime, John Garang took serious measures. He began to forge deep links with the Southern people, discipline rebel forces, and cultivate intra-organization democracy to some extent, and thus, he was able to hold South Sudan's first *National Convention* in 1994. By increasing public support and controlling complaints about the leadership, the SPLA/Garang was able to achieve important military successes on the battlefield against

government forces. In 1994 and 1995, for instance, the SPLA was able to control Equatoria and the Bahr al-Ghazal, respectively. Facing a succession of rebel victories in those regions, al-Bashir embarked on a new military strategy: he started to forge (i) the *People's Defence Force* (PDF) consisting of conscripted young males between 16-18, and (ii) the *Murahaleen* supported by the Khartoum government against the Southern population around oil fields. Although the number of young recruits for the PDF was not as high as expected, pro-government militias became much more effective in mobilizing droughts-stricken Northern Muslims against the South for economic benefits.[166] Nevertheless, the SPLA emerged as an unstoppable rebel force by 1996, thanks to its increased social support and organizational restructuring. The transformation of the SPLA on the battleground would be later fortified by John Garang in the political arena: the SPLM/A signed the *Asmara Accords* in 1995 with the National Democratic Alliance,[167] consisting of northern conservative parties (e.g., Umma and DUP), other rebel groups (e.g., *Beja Congress*), and trade unions. Although the NDA components did not agree on the state structure and the role of religion in the past, leadership problems within the NDA (Umma/al-Mahdi *versus* DUP/al-Mirghani) paved

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166 It is important to highlight that the existence of the Murahaleen was formalized by adopting them into the PDF in which the army supported and directed the militia forces (Mawson, 1991, p. 146).

167 Formed in 1989 as a united opposition against the NIF/al-Bashir regime, the NDA consisted of all banned parties and figures. The NDA aimed to overthrow the al-Bashir regime and restore democracy by canceling the September Laws and re-implementing the 1972 Addis Ababa Agreement. The SPLM/A officially joined the NDA in 1993 to implement Garang's New Sudan vision. In this regard, the NDA components signed the Asmara Accords in Eritrea in 1995. The disunity among Northern parties, however, prevented the NDA from becoming a formidable military force against the Khartoum government. After the 2005 Comprehensive Peace Agreement between the SPLM/A and the Khartoum government, the NDA signed its own agreement with al-Bashir. For more information on the NDA and Asmara Accords, please see: Kramer et al. (2013). 'National Democratic Alliance (NDA)' & 'Asmara Declaration of 1995'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

the way for the adaptation of Garang's New Sudan vision over time (Collins, 2008, pp. 209–213; Shinn, 2015, p. 259; see also Khalid (2010, Chapter 10)).

In fact, there was another significant development going on that would affect the course and conduct of the civil war from the late 1980s to the mid-1990s: so-called *drought-induced famines*. In those years, Sudan experienced three droughts, each less than one year long (1987, 1990, and 1996). Nevertheless, such short drought periods caused widespread famines, particularly in the South, requiring international emergency relief. Interestingly, although the Sahel drought (1968-1975) caused catastrophic impacts on Chad, it did not significantly affect Sudan. But the following drought period in the 1980s, culminating its adverse effects mostly in 1987, led to detrimental impacts on the southern Dinka and northern nomadic Arab/Arabized tribes, such as the Baqqara. Just between 1988-1989, for instance, more than 300,000 Sudanese perished primarily from drought-induced starvation (cf. Keen (1995)).[168] Moreover, by 1991, the number of drought-stricken people at risk of starvation reached almost ten million (Prendergast, 1991, p. 49). The sharp contrast between the Sahel drought and the successive short drought periods in terms of their impacts is largely based on two factors. First, since the early 1970s, the al-Numayri regime embarked on restructuring the Sudanese agricultural sector to rely on export-driven cash crops, primarily cotton, which were financed by the World Bank and the Arab world through mechanized agricultural schemes and al-Turabi's Islamic banking system. As farmers cultivated cotton and sorghum in these monocrop systems irrigated by the Nile River waters, the agricultural sector and farmers became more vulnerable to the amount of precipitation and droughts as well as the

[168] According to Keen (1995), however, the number of deaths from so-called drought-induced starvation was estimated at around 500,000 people in southern Dinka regions in 1988.

volatile world market prices. As a result, many Sudanese faced hunger during periods of droughts or falling cash-crop prices at the world agricultural commodity markets (see Prendergast (1991)). Second, but more importantly, such transformations in the agricultural sector during the 1970s led to significant developments that would impact the course and conduct of the second Sudanese Civil War. By recruiting the drought-stricken Muslim Arab and anti-Dinka Nuer tribes as pro-government militia forces, such as the Murahaleen and the Anya Nya II, respectively, the al-Bashir regime aimed to achieve primarily two goals: (i) conducting its counterinsurgency operations through local surrogates/militias, thus depicting the Southern rebellion to the international community as a resource competition between tribes, and (ii) extending the ongoing conflict in a way to assume control over southern oil fields by forcing people to leave those areas through starvation and pro-government militias (see FBIS Record, (1988b)). Moreover, during famines, the al-Bashir regime also undermined the SPLA's recruitment activities in the South by deliberately manipulating international emergency aid to its supporters' advantage (see Collins (2008, pp. 200-211, 228-238); Khalid (2010, Chapter 9); Prendergast (1991); Mawson (1991)). In brief, the famines of the late 1980s and mid-1990s were the results of the Khartoum government's deliberate maladministration rather than a direct impact of droughts or weak state capacity to provide basic social services.[169] Instead of addressing the root causes of famines, the al-

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[169] In the relevant literature, famines are generally attributed to five factors: (i) natural disasters, seen as acts of God, such as droughts, earthquakes, and floods, (ii) market forces in which food/cash crop prices are so volatile, (iii) rapid population growths exceeding the limits of agricultural production, (iv) inappropriate farming methods that reduce agricultural production, and (v) policy failures by governments, be they intentional or not (Keen, 1995). As both Keen (1995) and Prendergast (1991) rightly argue, the drought-induced famines during the NIF/al-Bashir regime were a result of deliberate government policies rather than a natural phenomenon. For more information on what the concept of famine entails and its relationship with the case of Sudan, please see: Keen. (2008a). Complex

Bashir regime aimed to utilize the droughts and famines in order to take Abyei and Bentiu oil-rich regions under control through pro-government militias. To this end, the Khartoum government was inclined to extend the ongoing war for a longer period in order to gain an advantageous position (see Keen (1995; 2008b, Chapter 3-4)).[170]

As mentioned earlier, during the Anglo-Egyptian Condominium, the English were aware of Sudan's lack of natural sources. As the French did in Chad, they established large-scale irrigation schemes in regions that were more suitable for cotton production in terms of climate.[171] In 1911, for instance, the *Sudan Plantations Syndicate*, a British private enterprise, launched Sudan's first agricultural scheme with the Sudanese government and local farmers in order to cultivate high-quality cotton for the British textile industry: the al-Jazīrah[172]. To extend and protect cotton cultivation from natural hazards in the al-Jazīrah region, the Condominium also constructed an irrigation dam in Sennar in 1925, which diverted water from the Nile to irrigate more than two million acres of land in the region. With these massive agricultural projects, Sudan had become one of the leading exporters of cotton in Africa, along with Chad. Therefore, the region had become one of the most densely populated areas in Sudan, and cotton, along with sorghum and sesame, had become the locomotive of the

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Emergencies. Polity Press. (Chapter 5).; Ojaba et al. (2002). Food Aid in Complex Emergencies: Lessons from Sudan. *Social Policy & Administration*, *36*(6), 664–684.

170 David Keen's other book, *Useful Enemies* (2012), in which he examines the economic function of wars, is a helpful source for understanding how prolonging a civil war could be beneficial, particularly to powerful actors. For more information on how not ending a war is more advantageous to some parties in an ongoing war, please see: Keen. (2012). *Useful Enemies: When Waging Wars Is More Important Than Winning Them*. Yale University Press. (Introduction).

171 In fact, the first mechanized agricultural production in Sudan through water pumps was embarked by the Turco-Egyptian rule during the 1860s, in which the floodwaters of the two rivers in eastern Sudan, the *Gash* and *Barka*, were used to grow export-oriented cotton (DeLancey, 2015, p. 175).

172 For more information on the al-Jazīrah Scheme, please see: Kramer et al. (2013). 'The Gezira (al-Jazira)' & 'Gezira Scheme'. *Historical Dictionary of the Sudan* (4th Edition). The Scarecrow Press.

Sudanese economy until the discovery of oil in Abyei and Bentiu in 1978.[173] It is important to note that the British invested in Sudan not just by launching agricultural schemes but also contributed to the development of Sudan's trade volume by bringing the telegraph to the country, constructing railways linking the South to the key locations in the North, and building new ports in the Red Sea, such as Port Sudan (Ofcansky, 2015, p. 24; see also DeLancey (2015, pp. 174-181)). All these measures, mainly taken by considering the British interests in Sudan and the region alike, led to (i) the uneven development of the North at the expense of the South, but (ii) the more resilient agricultural production/sector in the Sudanese economy (see Khalid (2015, Chapter 1); Holt (1961, Chapter 8); Kramer et al. (2013, Introduction)).

In 1950, however, the al-Jazīrah Scheme was nationalized by the Sudanese government as one of the world's largest agricultural irrigation projects at that time. Furthermore, since cotton prices were high in the international markets due to the Korean War (1950-1953), the government and many entrepreneurs launched large-scale mechanized rain-fed farming and pump projects in order to cultivate cotton in more areas. The excessive increase in cotton production, however, led its price to enter a downward trend starting from the 1960s. Nevertheless, in the late 1960s and early 1970s, when the Sahel drought was most severe, the al-Numayri regime prioritized the policies of drilling water wells and using water pumps with funds from the World Bank and the International Monetary Fund (IMF). The aim was to reduce the impact of

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[173] Although oil exploration was embarked on in the Red Sea Littoral in 1959, the Northern Arab/Arabized Muslim elite was hesitant to continue oil exploration for security reasons: the discovery of oil reserves in the South and the prospective oil revenue could strengthen the idea of an independent South Sudan. Nevertheless, the Southern elite was able to persuade the Khartoum government to explore oil after signing the 1972 Addis Ababa Agreement (Moro, 2006, p. 76).

droughts on agriculture, though not successful as expected (see Burr & Collins (1999, pp. 64–66)). Similarly, another large irrigation project, the *Jonglei Canal*, was launched by al-Numayri in the late 1970s but halted by the SPLA attacks in later years. As a result, in the early 1980s, the Khartoum government's *bread-basket strategy* failed: the total agricultural production decreased by almost 50%, and the government's debt to international institutions grew extensively. Aware of increasing economic grievances, al-Numayri started to implement the austerity and privatization policies of the World Bank and IMF for financial stability. Moreover, with al-Numayri's reconciliation policies with northern Muslims in the late 1970s, al-Turabi was able to establish an Islamic banking system in which funds from Gulf countries were obtained for agricultural schemes. Such measures, however, further marginalized the people in the periphery by taking their land use rights away in favor of large private enterprises in the agricultural sector. In these monocrop schemes, changes in annual production and, thus, changes in cash crop prices at the world markets during drought periods made rural people more vulnerable to economic crises. Therefore, in drought periods, starvation-caused deaths and the need for emergency relief had become ordinary phenomena in Sudan (Prendergast (1991); Khalid (2010, Chapter 5); see also Johnson (2003, pp. 43–44); DeLancey (2015, pp. 174–181); Ofcansky (2015, pp. 41–42)).

All these economic and political problems, along with the recurrence of civil war, led to the overthrow of the al-Numayri regime in 1985. Shortly after the coup, the military junta proved that it was incapable of solving all these accumulated problems. After the 1986 election, Prime Minister Sadiq al-Mahdi was also not capable of overcoming these problems, mainly due to the power struggle between the DUP and the NIF in his coalition. Therefore, Sudan experienced another military coup in 1989, which

paved the way for the NIF regime. Nevertheless, by continuing the use of Messiria and Rizeigat militia forces, al-Mahdi left a legacy to be followed by al-Turabi and al-Bashir: using the Arab militia forces (the Baqqara) against the SPLA in the *Dinkaland*. Although many senior military officers were initially opposed to this strategy due to gross human rights violations against civilians, Omar al-Bashir was among those who created the militia strategy of the Khartoum government at that time. Even though the strategy of using pro-government militia forces seemed at first like an unavoidable choice by the Khartoum government, which was stuck with economic, political, and social problems, it was beneficial for the government as well as the northern Muslim groups in many respects (see Keen (1995; 2008b, Chapter 3); Mahmud & Baldo (1987, pp. 26-27, 29–30)).

From the Khartoum government's perspective, oil resources, which were discovered in the late 1970s around the Dinkaland on the North-South border, could be financial salvation for the shrinking economy and the weakening government position against the SPLA in the ongoing civil war. Furthermore, recruiting surrogates could be helpful for the Khartoum government to depict the ongoing civil war as a resource conflict between local ethnic groups rather than jihad against southern non-Muslims. Thus, many gross human rights violations in the South, particularly against non-Muslims and Muslims in the Nuba Mountains, could have escaped the international community's attention. In the meantime, however, the NIF regime could continue its jihad against the Southern Christians and Animists by forcing them to leave oil-rich areas through gross human rights violations by militia forces, intentional famines and starvation against the South, and the manipulation of international emergency aid in favor of Northern Muslim areas (see De Waal (1997, Chapter 5); De Waal & Salam

(2004, pp. 100–106); Johnson (2003, Chapter 10); Keen (2008b, Chapter 4)). From the northern Muslim groups' perspective, on the other hand, droughts and famines created a conducive environment in which they could be supported militarily, financially, and legally by the government; thus, they could compensate for what assets they lost during times of economic crises by raiding/looting the southern cities and abducting the Dinka people for free labor/slavery in the North (see El-Affendi (2001); Human Rights Watch (1999); Lobban (2001)).[174]

First and foremost, although the droughts of the 1980s-1990s contributed to the formation of famines, their impact was limited compared to the Murahaleen raids. In fact, the North (e.g., South Kordofan) was much more affected by droughts than the South (e.g., Upper Nile & Bahr al-Ghazal) since Southern regions had much more water resources and a climate more suitable for agriculture. Nevertheless, it was the southern Dinka who faced the detrimental impacts of droughts. Such a result was more related to the Arab militia forces, whom the Khartoum government supported through military and financial means as well as legal immunity from prosecution. Just during the Baqqara Arab raids of the 1988 dry season, for instance, almost a million cattle were stolen (Keen, 2008b, p. 78; Mahmud & Baldo, 1987, p. 28).[175] Losing one of the most important livelihoods, many Dinka people had to migrate to northern cities (e.g., Wau and Aweil) or Ethiopia along railway routes for survival, where they would have to deal with diseases and sanitation problems in famine camps or garrison towns. While the

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[174] For more information regarding that the human rights violations were not related to Islam but to the Khartoum government and the ongoing civil war, please see: El-Affendi. (2001). Islam and Human Rights: The Lessons from Sudan. *The Muslim World, 91*(3–4), 481–506.

[175] Since Dinka cattle captured by the Murahaleen in the South were not suitable for the northern climatic conditions, the Baqqara militia forces mostly acquired them to sell later (Mawson, 1991, p. 140).

young men had to move further south or migrate to Ethiopia since they were seen as potential SPLA recruits by the Khartoum government, the old were mostly killed by the militia forces. Just in 1988, for instance, 100,000 people from Bahr al-Ghazal moved to Ethiopia in order to register for refugee camps. Similarly, in slightly more than two months, the number of displaced people increased by 20,000 in a famine camp in northern Meiram (Mawson, 1991, p. 143). Besides looting cattle and grains, the Murahaleen militias also abducted children and young women for free labor/slavery and sexual abuse, in which they were treated as animals or commercial commodities. Just in 1988, for instance, 75,000 Dinka were enslaved in Kordofan by the Murahaleen as domestic servants, herders, or concubines. Moreover, the Murahaleen began demanding a ransom to free the enslaved Dinka. Just between 1995-2001, more than 30,000 Dinka slaves were redeemed through fundraising campaigns mainly organized by the *Christian Solidarity International* movement (Lobban, 2001, pp. 33–35). Although there were problems between the army and the militia forces due to the Khartoum government's excessive support for the Murahaleen, the illegal acts of the Murahaleen were mostly tolerated by the army. Moreover, soldiers and Arab merchants (jallaba) gradually formed a covert economic partnership in the border areas over the proceeds from the booty (Keen, 2008b, pp. 109–112; Mahmud & Baldo, 1987, p. 28). Witnessing the benefits of joining the pro-government militia forces, many young northern Arabs became a part of the Murahaleen. Nevertheless, as the SPLA regained control in the South, and thus, the diminishing returns of the raids, the attractiveness of these militia forces gradually declined among the Northern Arabs. Furthermore, considering the brutality of the Murahaleen against their ethnic kin, many young Dinka participated in the SPLA for security reasons as well as revenge (see Johnson (2003, Chapter 10); Keen

(2008b, Chapter 3); Lobban (2001); Mahmud & Baldo (1987, pp. 26-27, 32); Mawson (1991)).

In addition to the militia strategy elaborated above, the Khartoum government also followed another strategy in order to depopulate the oil-rich areas from Dinka and Nuer domination with minimal military and financial burden. This depopulation strategy consisted of two tactics: (i) pressuring oil exploration companies to act with pro-government militia forces (see Christian Aid (2001); Moro (2006)) and (ii) manipulating the international emergency aid in favor of northern Muslims (see De Waal (1997, Chapter 5); Human Rights Watch (1999)). In the late 1970s, when oil resources were discovered mostly in SPLA-held areas along the North-South border, the successive Khartoum governments aimed to control these oil-rich areas. The ultimate goal was to fix the economic problems and win a military victory against the SPLA with the help of oil revenues (see FBIS Record (1995)). When Sudan made its first oil export to Singapore in 1999, for instance, the government revenue increased by 20%, and just between 1998-2000, Sudan's arms imports increased steadily from $166 million to $327 million (Khalid, 2010, Chapter 9). With rising oil revenues in particular, the Khartoum government was able to purchase Antonov bombers and helicopter gunships from Russia and China for its counterinsurgency operations in the South (Patey, 2007, p. 1006).[176] Despite violating the terms of the 1972 Addis Ababa Agreement, al-Numayri attempted to control those regions with a kind of gerrymandering strategy in the past, but the SPLA was adamant about protecting such

[176] The oil revenues were used by the Khartoum government not only for armament but also for the displacement of other social groups from specific regions through various projects. One of them was *Merowe Dam*, the largest hydropower project in Africa. To construct the project, approximately 50,000 Nubians were dislocated from the area by the security forces (Moro, 2006, p. 79).

lucrative resources from northern domination with military resistance.[177] Therefore, it was not a mere coincidence that the most severe conflicts between the government and rebel forces took place around Abyei and Bentiu. In this regard, for instance, SPLA leader John Garang said the following on Ethiopia-based SPLA Radio as to why the SPLA attacked the government forces around oil-rich areas in the initial phase of the second civil war:

> "He [al-Numayri] unconstitutionally and unsuccessfully tried to change the boundaries of the southern region, there since the 1980 people's regional government act. By this way he wanted to deprive the south of mineral riches and prime agricultural land, such as northern upper Nile, Bentiu, *et cetera*. Natural resources wherever they are found in the Sudan belong to the whole Sudanese people. […] But Numayri selfishly agitated to the extent of attempting to legislate the formal exclusion of these areas from the south" (FBIS Record, 1985a).
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> "By bringing to a grinding halt […] the extraction of oil from Bentiu, the SPLA denied Numayri the vitally needed revenue which would have enabled him to revive the ailing economy, thereby tightening his grip on power to the detriment of the broad Sudanese masses" (FBIS Record, 1986b).

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[177] The first attempt by the North came in 1980 when the National Assembly passed a decentralization bill in which oil and mineral-rich areas in the South were included in the North. Although al-Numayri annulled the bill due to Southern reactions at that time, the second Northern attempt came shortly after. In 1981, the Khartoum government created a new state, *al-Wahida/Unity State*, consisting of oil-rich Bentiu and neighboring areas. Moreover, the power of granting oil exploration licenses was given to the President and the Minister of Energy and Mining. The last blow of the al-Numayri regime before the 1985 coup was to redivide the South into three separate regions: Equatoria, Bahr al-Ghazal, and Upper Nile. Facing the North's attempt to seize oil reserves and prospective oil revenues without considering the South's interests, the SPLA carried out its first attacks on the oil wells around Bentiu (Moro, 2006, pp. 77–80).

Despite supporting the Murahaleen and anti-Dinka rebel groups in order to control oilrich areas through the population displacement strategy, the Khartoum government also forced oil companies to support or act with pro-government militias to depopulate exploration fields from the Dinka and Nuer people. *Chevron*, and later a Canadian company, *Talisman Energy*, complied with the demand of the Khartoum government and, thus, obtained an oil exploration and production warrant. A Swedish oil company, *Lundin Energy*, also acted with the Khartoum government and pro-government militias in order to depopulate the 75-kilometer-long *oil road* from its base in Rub Kona to the exploratory well in Thar Jath along the *Block 5A* oil concession area (Christian Aid, 2001, pp. 6-8). Nevertheless, the human rights violations committed by the militia forces they supported, particularly in the Nuba Mountains, drew the international community's reaction (cf. Patey (2007)). Therefore, they had to abandon their operations in Sudan by selling their assets and concession below their fair value (Collins, 2008, pp. 228-234; DeLancey, 2015, pp. 197-201; Khalid, 2010, Chapter 9; see also Patey (2007)).[178]

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[178] It is worth noting that China has been one of the most important allies of the Khartoum government in oil production/export and arms supply. After Chevron and Talisman Energy ended their operations in Sudan due to international pressures, the state-owned *China National Petroleum Corporation* (CNPC) continued its operations without any hindrance (Collins, 2008, p. 234; Patey, 2007, p. 1010). According to Patey (2007), however, the differing attitudes of North American (e.g., Chevron & Talisman) and European as well as Eastern oil companies (e.g., Lundin, CNPC, Petronas & ONGC) in oil exploration and production operations were not related to non-governmental organizations' pressures about human rights violations in Sudan. The political relationships between their origin country and Sudan rather dictated which action they would choose. For instance, although Chevron and Talisman faced international reactions to their operations in Sudan, Lundin did continue its operations for a longer period due to the European Union's strategy of constructive engagement with Sudan. For more information on oil companies' operations and preferences in Sudan, please see: Patey. (2007). State Rules: Oil Companies and Armed Conflict in Sudan. *Third World Quarterly*, *28*(5), 997–1016.

Besides militias and oil companies, the al-Bashir regime was not hesitant to exploit relief aid to depopulate the oil-rich areas from the southern Dinka and Nuer. In other words, despite being expected to have catastrophic impacts on the Khartoum government, so-called drought-induced famines became advantageous for counterinsurgency operations against potential SPLA recruits through manipulating emergency relief (see FBIS Record (1985b)). Furthermore, the famine in the South was considered by the NIF regime an opportunity to Islamize the non-Muslim South through Islamic humanitarianism (*da'wa*) (De Waal, 1997, pp. 103–104; see also De Waal & Salam (2004)). The aim of manipulating international emergency aid at the expense of the South was the same: (i) the reduction of the military and financial burden on the successive Khartoum governments, (ii) the depopulation of the South, particularly the SPLA-supporting Dinka, from oil-rich areas, and (iii) the protection from the international community's accusations and sanctions by using proxies, be they militia forces, oil companies or even relief aid. First and foremost, although famines evolved over the years, emergency reliefs were reached to those in need only after the worst situation. Furthermore, international relief was delivered to government-controlled areas/towns rather than rebel-controlled areas/towns. For instance, in Bahr al-Ghazal, where the famine was felt most by the Dinka, the aid was mainly distributed to garrison towns (e.g., Wau and Aweil), but exceedingly small in relation to needs. In 1988, when the 1987 famine reached its peak, most Southern people started moving to famine camps or garrison towns in the North for survival. In the same years, however, the aid began to decrease, and thus, rations remained far below the need. In famine camps and shanty towns around northern cities (e.g., Khartoum), Southern people also had to deal with sanitation issues and diseases, such as unsafe drinking water, diarrhea, malaria, and

guinea worm.[179] On the worsening of the situation, some non-governmental organizations, particularly *Oxfam*, embarked on organizing campaigns to draw international attention to famine in Sudan (De Waal, 1997, p. 97).

Despite the worsening situation, the Khartoum government was hesitant to declare famine due to its supposedly negative impacts on the NIF regime. Instead, as the factors behind starvation, al-Bashir mainly blamed the poor transportation infrastructure of Sudan as well as the international community for providing insufficient assistance. After a while, however, negotiations between the *International Committee of the Red Cross* (ICRC), the Khartoum government, and the SPLA were started about future relief operations in 1988. Such efforts culminated in the creation of *Operation Lifeline Sudan* (OLS) in 1989 (Keen, 2008b, pp. 129135).[180] In fact, the OLS was divided into two sectors: a northern Khartoum-based *versus* a southern Nairobi-based. While the Northern Sector conducted its relief operations in the government-held areas through roads and railways, the Southern Sector mainly dealt with its relief operations in the SPLA-controlled areas through airlifts. Each relief operation was subject to the approval of Khartoum, but the al-Bashir regime was hesitant to give permits mostly to the Southern Sector due to supposedly security reasons (see FBIS Record (1989a),

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[179] Due to prospective food riots in the shanty towns of Khartoum, the al-Bashir regime also forced 30,000 displaced Southern people to leave Khartoum and demolished their homes when they moved (De Waal, 1997, p. 103).

[180] The first attempt to announce the food shortage in the South to the international community came from the *Sudan Council of Churches* in 1986. Although some aid convoys were arranged for the South, the SPLA prevented most of them from reaching the areas in need due to potential army attacks. In the same year, the first major UN humanitarian assistance started under the name of *Operation Rainbow*. After approximately 250,000-300,000 people died due to starvation in 1988, the UN, together with warring parties and several international organizations, launched Operation Lifeline Sudan in 1989 in order not to experience the same human catastrophe ever again. At that time, the OLS was considered the biggest humanitarian assistance in history, which took place in an ongoing civil war (Ojaba et al., 2002, pp. 669–677, 673).

(1994)). After the 1990 and 1996 droughts, for instance, the government did not approve the entry of the UN assessment teams into drought/famine-hit areas in the South. Moreover, Khartoum permitted only air access to a limited number of places with a restrictive number and capacity of airplanes. It is important to note that despite the denial of the Khartoum government, deadly famines were not related to the shortage of relief resources but rather maldistribution practices (see De Waal (1997, Introduction); Keen (2008b, Chapter 4)). For instance, the food relief provided by the European Community at that time waited in wagons for more than two years in a railway station in el-Muglad, very close to a famine camp where the displaced Dinka were starving to death (De Waal, 1997, p. 94).[181] Ironically, though, all these relief efforts further undermined the termination of the Sudanese humanitarian crisis.[182] Put blatantly, relief aid convoys were frequently raided by militia or rebel forces for economic imperative/interest, and thus, created a war economy in which warring parties aimed to accumulate wealth through illicit trade and/or plunder. A former SPLA leader, Kerubino Bol, for instance, received military aid from both sides by frequently switching his side between the Khartoum government and the SPLA. He also increased his personal wealth

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[181] Although there was no evidence of a grand plan for famine-based genocide, the al-Bashir regime's acts and policies were seen as planned near-genocidal acts and motives (De Waal, 1997, p. 95; see also Mahmud & Baldo (1987, Chapter 2)). A similar debate was carried out in academic circles after the Darfur Crisis. For more information on the debate, please see: Ekolo. (2010). Darfur and the Genocide Debate. *African Journal on Conflict Resolution, 9*, 33-52.; Straus. (2005). Darfur and the Genocide Debate. *Foreign Affairs, 84*(1), 123–133.

[182] For more information on the debate about why and how relief aid rather exacerbates the ongoing humanitarian crises by contributing to warring parties' war efforts in civil wars, please see: De Waal. (1997). *Famine Crimes: Politics & the Disaster Relief Industry in Africa* (1st Edition). Indiana University Press. (Introduction).; Moyo. (2009). *Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa*. Farrar, Straus and Giroux. (Part I).; Shearer. (2000). Aiding or Abetting? Humanitarian Aid and Its Economic Role in Civil War. In M. R. Berdal & D. Malone (Eds.), *Greed and Grievance: Economic Agendas in Civil Wars* (pp. 189–204). Lynne Rienner Publishers.; Ojaba et al. (2002). Food Aid in Complex Emergencies: Lessons from Sudan. *Social Policy & Administration, 36*(6), 664-684.

by raiding the aid convoys during the second Sudanese Civil War, thus becoming a warlord who had a vested interest in prolonging the civil war (see Human Rights Watch (1999)). Besides the Khartoum government and some warlords, the SPLA also utilized food aid as a military tool to undermine Khartoum's both military power and social support (see FBIS Record (1986a)). For instance, the SPLA kept garrison towns (e.g., Wau and Aweil) under siege by preventing food aid from reaching people in need -most of them were Southerners, and thus, tried to get concessions from the Khartoum government by leaving people hungry (Keen, 2008a, p. 113).

5.3.4 International Pressures, Peace Process & End of Civil War

All in all, from the civil war onset in 1983 to the early 2000s, the successive Khartoum governments internally displaced nearly 5 million people, and additional 500,000 people became refugees in neighboring countries, mainly in Ethiopia. More than two million people also lost their lives due to war-related factors in the same period (Ojaba et al., 2002, p. 665). Although Northern Arabs (e.g., the Baqqara) were affected by all these war and drought-related catastrophes, the most affected social group was the Southerners, mainly the Dinka. More in detail, just between 1998 and 2001, the Khartoum government was able to displace more than 200,000 Southern people from the oil-rich areas. Additional 180,000 people were added to this list between 2002 and 2003 when Khartoum started to earn petrodollars by selling the Southern oil through Port Sudan (Moro, 2006, p. 80). It is worth noting that during the 1990s when famines were most severe, international food aid provided economic relief to the NIF regime in its war efforts. Just in 1990, the ongoing civil war was costing the Khartoum government $1 million per day. By exporting its homegrown sorghum, the NIF regime was able to continue its war effort by relying on international food aid instead, mostly from the US

(Ojaba et al., 2002, pp. 668–669). Particularly since the early 2000s, the al-Bashir regime continued jihad by transferring oil revenues mostly to its war efforts against the SPLA. Furthermore, by ameliorating the balance of payments through petrodollars, Sudan was able to attract funds and investments, particularly from the Gulf and Middle East countries. The economic embargoes imposed by international organizations and Western countries (e.g., IMF, World Bank, and US *Sudan Peace Act*[183]) were also lifted one by one in the post-Turabi period with the relative improvement of relations with the US (Collins, 2008, pp. 234–238; see also Khalid (2010, Chapter 9)).

In the late1990s and early 2000s, it became clear that the ongoing civil war turned into a stalemate in which neither warring party was able to gain a military victory over the other. Therefore, the balance of power between warring parties was ripe enough for a peace negotiation between Khartoum and the SPLA and, thus, a peace agreement afterward. The missing parts of the puzzle were international pressures and a mediator being trusted by both sides (see Zartman (2000, 2001)). In fact, the pressure of the international community on Sudan, mostly economic sanctions and arms embargo, had been going on since the early 1990s. The sanctions/embargoes were mainly related to the Khartoum government's Islamist policies and gross human rights violations, particularly against Muslims and non-Muslims alike near the Nuba Mountains (e.g., the

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[183] Signed by the then US President, George W. Bush, in 2002, the Sudan Peace Act required submitting semi-annual reports to the US Congress on peace negotiations between the Khartoum government and the SPLA and calling for economic sanctions in the absence of negotiations. The Act condemned all types of human rights violations perpetrated by the Khartoum government, including the recruitment of the Murahaleen and the manipulation of international aid. The Act also barred US oil companies from engaging in Sudan's petroleum industry -that provision was dropped in the Act's later version (see Kramer et al. (2013, Chronology: Independent Sudan); Patey (2007, p. 12)).

Dhein Massacre; see Mahmud & Baldo (1987); Anonymous (1988)).[184] However, particularly three developments in the late 1990s and early 2000s further accelerated Sudan's isolation from the Arab and Western worlds: (i) the failed assassination attempt against Egyptian President Mubarak in 1995, (ii) the 9/11 terrorist attacks on the World Trade Center in New York in 2001, and (iii) the eruption of the *Darfur Crisis/War* in 2003. As discussed earlier, the assassination attempt against Hosni Mubarak was met with an increasing reaction against al-Turabi's Islamist policies in the Arab world. The other NIF-linked Muslim Brotherhood groups in the region, particularly in Egypt, were most affected by this situation. The relationships of al-Turabi with Islamic terrorist organizations through the PAIC and his support for terrorist attacks in the region engendered a reaction against the NIF both in the greater Middle East and the West. In response, the Arab world and the West imposed military, financial, and diplomatic sanctions against the NIF regime. Petrodollars, particularly the relations with China over oil production and trade, led the Khartoum government to resist these pressures and sustain its counterinsurgency operations against the SPLA. The 9/11 terrorist attacks, however, changed the whole calculation in Khartoum. The impending *Global War on Terror* campaign by then US President George W. Bush pushed the al-Bashir regime to improve relationships with the US since Sudan was included in the category of terrorism-supporting countries due to al-Turabi's activities in the Islamic world during the 1990s (see FBIS Record (1993)). Worrying about increasing pressure on the regime,

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[184] The booklet written by Mahmud & Baldo (1987), *The Dhein Massacre*, which relies on eyewitness testimonies, presents critical evidence about the atrocities of the Murahaleen on the Dinka. Written by anonymous (1988) writers, on the other hand, the "Sudan's Secret Slaughter" piece points out firsthand evidence of the atrocities and gross human rights violations against the Nuba people by the government and pro-government militia forces.

al-Bashir supported the Global War on Terror campaign and thus cooperated with the US in intelligence sharing. Seen as more moderate than al-Turabi, al-Bashir, and his new approach, were welcomed by other countries, especially the US and the Arab world, after the collapse of the coalition between al-Turabi and al-Bashir in 1999. Although the pressure on the Khartoum government gradually began to be eased, the 2003 Darfur Conflict and the subsequent human rights violations in counterinsurgency operations further increased international pressure on the regime (De Waal 2007a, 2013; see also Ekolo (2010); Straus (2005)).[185] Under these circumstances, it was calculated by the Khartoum government that a peace agreement with the South/SPLA would reduce international pressure and thus offer some space for the regime to be maintained (Collins, 2008, pp. 238–244).

On the SPLA side, however, the late 1990s and early 2000s were a period of increased hope for peace, if not military victory. First and foremost, John Garang was able to overcome the internal strife with Riek Machar and thus consolidated his personal power in the SPLA. By restructuring the organization, he was also able to improve the links with the Southern public. Furthermore, the NDA became more united and effective under the *de facto* leadership of John Garang, who was leading the NDA's military operations against the government forces. The military victories the SPLA got from the mid-1990s were, in part, the accumulation of all these changes/efforts. Although the al-Bashir regime attempted to utilize Nuer-origin splinter groups (e.g., SPLA-

[185] The eruption of conflict in Darfur coincided with the ongoing peace negotiations between the Khartoum government and the SPLA, in which the main controversy was whether other peripheral/rebel regions/actors would be included in the ongoing peace process. While the Khartoum government wanted to keep the peace process limited to the South, the SPLA aimed to involve other regions/actors as well in order to reach its New Sudan vision. The Darfur Crisis/Conflict erupted at a time when the peace talks with the SPLA came to a halt (De Waal, 2013, p. 286).

United/Nasir) and later the PDF and Murahaleen with military and financial support through petrodollars, the SPLA was resistant enough to maintain its cause against all these proxies with the help of droughts/famines, increasing international pressure, and crises/conflicts that erupted in the peripheral areas (e.g., JEM in Darfur, Beja Congress in the East, *Ingessena* in the Blue Nile; see De Waal (2007a)). Given the stalemate between the SPLA and the government forces on the ground, the al-Bashir regime found the remedy to be involved in peace processes. The ultimate aim of the Khartoum government's involvement in all these peace processes, some of which were carried out simultaneously, was to buy time enough for a more advantageous position against the SPLA on the ground (Collins, 2008, pp. 245–258; see also Johnson (2003, Chapter 9-10)).

In fact, the first peace negotiation attempt came shortly after the 1989 coup in which al-Bashir requested to be a mediator from a country that had sent the most humanitarian aid: the US. After realizing that the Khartoum government utilized such peace talks as a strategy to buy time and thus have a better military position against the SPLA, then US President Bill Clinton issued an executive order in 1997 to increase economic and military sanctions against Khartoum. Similarly, SPLA leader Garang explained the government strategy of initiating multiple peace talks as the following on SPLA Radio: "They only talk and double talk about peace while in fact they prepare for yet another military offensive to, as they say, wipe out the SPLA once and for all" (FBIS Record, 1988a; see also FBIS Record (1994b), (1994a)). In the meantime, despite the OAU Charter,[186] then Nigerian President and OAU chairperson Ibrahim Babangida

[186] In the changing politico-military order of the post-Cold War period, Western powers were reluctant to intervene in internal conflicts in Africa, particularly after the US-led operation in Somalia (1992-1993)

showed a great effort as a mediator between al-Bashir and Garang in the *Abuja Talks* (*I* & *II*) during the early 1990s. The aim of Nigeria/Babangida was to give another chance to the SPLA to reach a peace settlement with the Khartoum government before too late since, in those years, the SPLA was struggling with its splinter groups and thus facing an imminent military defeat. Nevertheless, despite the failure of the Abuja Talks, the warring parties came to an interim arrangement where all Sudanese would be treated as equal citizens in a united Sudan without facing any discrimination and/or exclusion based on race, culture, and religion. It is worth noting that despite such an arrangement, the Khartoum government kept its discriminatory policies against non-Muslims in the North, where all churches were considered non-governmental organizations and thus came under government control (Khalid, 2010, Chapter 9; see also Back (2016)).

The peace initiative, which played the most critical role in ending the second Sudanese Civil War, was put forward by the *Intergovernmental Authority on Development* (IGAD).[187] After the invitation by President al-Bashir for a mediator role in 1993, IGAD brought the civil war-affected countries together and provided a platform for open dialogue between the SPLA and the Khartoum government by declaring the

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and the Rwanda Genocide (1994). Given the isolationist foreign policies of the West, African leaders sought 'African solutions to African problems' mainly through regional or sub-regional organizations, such as the OAU (later AU), ECOWAS, and IGAD. Although the OAU Charter mandated the non-interference in domestic politics and the territorial integrity of member states, these regional/sub-regional organizations have sought to fill the political void in conflict resolution mechanisms with varying success rates (see Back (2016)).

[187] As a sub-regional organization in Africa, the *Intergovernmental Authority on Drought and Development* (IGADD) was established in 1986 with the efforts of drought-stricken countries, namely Somalia, Sudan, Uganda, Kenya, Ethiopia, Eritrea, and Djibouti. In 1996, the name of IGADD was later changed to the Intergovernmental Authority on Development (IGAD). The organization aimed not only for environmental/food security and economic integration in Eastern Africa but also to maintain peace and security by initiating conflict resolution mechanisms in the region (see Back (2016, pp. 144–145); the IGAD website: https://igad.int/about/).

1994 *Declaration of Principles*. The declaration mainly framed the boundaries of the peace negotiations: a secular constitution, decentralization in a united Sudanese state, equal distribution of resources, the rule of law, respect for universal human rights, *et cetera*. Although four members of IGAD, namely Ethiopia, Uganda, Kenya, and Eritrea, played significant roles in peace negotiations, other North American and European states participated in the peace process later under the name of the *Friends of IGAD*: the UK, the US, Germany, Canada, Italy, Norway, and Holland. With additional members, IGAD was later renamed *IGAD Partners Forum*. In fact, the reason behind the participation of Khartoum in the IGAD peace initiative was much more related to the split in the NIF coalition and the SPLA's military victories against government forces on the ground during the 1990s. Furthermore, the SPLA's internal struggles in the same period led the IGAD initiative to be continued, albeit with interruptions, by both sides. The imminent issues of IGAD were the sustained military attacks against non-combatants, gross human rights violations by government forces, and the status of the other three regions (e.g., Darfur, the Nuba Mountains, and Beja). Nevertheless, both Egypt and Libya took the initiative of making the aforementioned regions a part of the ongoing peace process between Khartoum and the SPLA. Although the joint *Egypt-Libya Initiative* sought to reach a comprehensive solution by including the NDA members in the ongoing peace process, the Khartoum government aimed to undermine the unity of the opposition by holding two separate peace talks simultaneously. Despite al-Bashir's time-buying tactics for a better position either on the ground or at the bargaining table, the SPLA and the Khartoum government were nevertheless able to sign the Geneva *Memorandum of Understanding* in 2001. Given the stalemate situation on the ground and the internal as well as external pressures on Khartoum, President al-

Bashir and SPLA leader John Garang met for the first time in Uganda in 2003 after the 2002 *Machakos Conference* in Kenya in order to pledge their commitment to the ongoing peace process (Collins, 2008, pp. 260-267; Khalid, 2010, Chapter 9; see also Back (2016); Johnson (2003, Chapter 11)).

When an insurgency by the JEM and SLM (*Sudan Liberation Movement*) erupted in Darfur in 2003, the international community condemned the heavy military intervention supported by the *Janjaweed* militia group. Fearing the collapse of the Islamist regime in the face of increasing international pressure, the Khartoum government was much more inclined to embrace the ongoing peace process. Despite not condemning Sudan's non-compliance with its demands regarding the Darfur Conflict, the UN Security Council members nevertheless recommended ending the ongoing peace process with a peace agreement within a year. All these developments paved the way for the signing of the 2005 *Comprehensive Peace Agreement* between the SPLA and the Khartoum government. The critical issues attempted to be solved by the CPA included (i) the formation of a united national army along with separate regional armed forces, (ii) the distribution mechanism of wealth between the North and the South, particularly oil revenues, and (iii) a six-year interim period in which the South would have an autonomous government until the 2011 *Independence Referendum*. In 2011, however, the Southerners opted for an independent South Sudan under the leadership of Salva Kiir and thus ended Garang's controversial vision of New Sudan (Collins, 2008, pp. 268–271; see also Johnson (2003, Chapter 11)).

5.4 Conclusion

Similar to Chad, when Sudan became independent from Britain in 1956, it was one of the least developed countries in the world, but its strategic location had always

put Sudan under the spotlight of world politics. Although the Anglo-Egyptian Condominium made investments in infrastructure (e.g., railways, telegraph, Port Sudan, agricultural schemes) in order to develop the Sudanese economy, Sudan continued to be an agricultural economy until the discovery of oil reserves along the North-South borderline in the late 1970s. Although Britain made all these investments for its own economic and security interests in the region, it contributed to the economic development of Sudan, albeit unevenly in terms of regional balance. It is worth noting that the root causes of Sudanese civil wars are not just related to uneven regional development. Besides political-economic factors, the two prolonged civil wars between the Arabized Muslim North and the non-Muslim Nilotic South were also fed by ethnic animosity stemming from the slave raids/trade that has been going on in different forms since the Turkiyya period.

Nevertheless, such an ancient hatred argument does not discard the role of maladministration in igniting and sustaining ethnic conflicts (see Kaufman (2001, 2015)). The historical struggle between the center (Khartoum) and peripheral regions (South, Darfur, Beja, and Blue Nile) in religious, cultural, economic, and political domains has been perpetuated by successive governments from various ideologies, such as al-Mahdi, al-Numayri, al-Turabi/al-Bashir. As essentially ethnic conflicts, the two Sudanese civil wars were mainly the result of two simultaneous processes: (i) the imposition of Northern identity on the South, which consists of Northern Muslim Arab characteristics, and (ii) the exploitation of resources by the center at the expense of peripheral social groups in order to maintain the dominant/hegemonic Northern position (see De Waal (2007a)). To this end, the Khartoum government, be it civilian or military, secular or traditional/fundamentalist, was never hesitant to utilize all the political tools

at its hand, such as agricultural schemes, famines, and even international emergency relief.

It is important to note that the maladministration of political leaders was not a unique problem for Khartoum. John Garang did also contribute to the disunity of the SPLA due to his personalistic and authoritarian leadership. Although he was able to overcome the internal strife with Riek Machar over the SPLA leadership, such personal struggles contributed to the longevity of the second civil war, just like the split in the NIF between al-Turabi and al-Bashir. Furthermore, splinter groups on the rebel side gave an advantage to the NIF/al-Bashir regime: the Khartoum government supported Nuer forces against the Dinka in the South with financial and military help. Furthermore, external actors, particularly Ethiopia and the US, played a significant role in extending the civil war by supporting/protecting the SPLA and/or drawing international attention/pressure to the human rights violations of the government's counterinsurgency operations.

If the second Sudanese Civil War was essentially an ethnic conflict between the Arabized Muslim North and African non-Muslim South, which was entrenched by the Turkiyya and Anglo-Egyptian Condominium and by the maladministration of political leaders, be they al-Turabi/al-Bashir and John Garang, what role, if any, did three short drought periods (1987, 1990 & 1996) play in the continuation of this conflict (1983-2005)? First of all, rather than the droughts themselves, al-Numayri's policy preferences in the agricultural sector made Sudan vulnerable to varying precipitation levels, thus conducive to famines. From the Anglo-Egyptian Condominium to the al-Numayri era, Sudan was resilient to droughts' adverse effects due to utilizing Nile River waters in agricultural schemes, such as al-Jazīrah Scheme. With the economic crisis in the early

1980s, however, al-Numayri changed Khartoum's agricultural policy and brought the agricultural sector in line with the austerity and privatization policies of the World Bank and IMF. Therefore, the Sudanese agriculture-based economy became sensitive to world market prices of cotton and precipitation levels in mechanized monocrop/cash crop farms. In brief, the famines experienced in the late 1980s and early/mid-1990s were mostly the result of these political choices (see Sen (1981, Chapter 8)).

Regardless of their root causes, famines provided an environment for the NIF/al-Bashir regime to pursue a scorched-earth policy: mainly the pro-government Murahaleen militia forces conducted gross human rights violations against the SPLA supporter Dinka under the guidance, support, and protection of the Sudanese officials, namely the army. The loss of livelihoods caused by drought-triggered famines allowed many Baqqara Arabs to fight alongside the Khartoum government as militia forces, in which they made a living mostly by looting and raiding the South. Furthermore, al-Bashir was not hesitant to manipulate international emergency relief in favor of the North and thus further undermine the SPLA's social base. Such a drought-induced complex emergency paved the way for the Khartoum government to pursue a brutal counterinsurgency operation against the South (see Keen (2008a, Chapter 5); Ojaba et al. (2002)). The ultimate goal of this militia strategy was to create an advantageous position for Khartoum on the ground by prolonging the civil war in a way that oil reserves came under its control. The underlying reason for the prolongation of the second civil war was essentially about who would control oil resources and, thus, future oil revenues. By the late 1990s, for instance, al-Bashir was able to sustain its war effort with oil revenues in addition to increasing international emergency aid. Although oil revenues were not enough for the Khartoum government to get an outright military

victory over the SPLA, they were also an obstacle to the government's military defeat due to the role of petrodollars in counterinsurgency operations. In brief, the existence of oil reserves/revenues was the harbinger of the prolonged civil war ending with a peace settlement between the drought-stricken government and rebel forces.

From the above discussion, it is evident that my first proposition, namely (i) the loss of human livelihoods, is supported by my process tracing, but not my second proposition, which is (ii) the decreased state capacity (see *Part II*: *Propositions*). Although there is strong evidence that many people participated in the Murahaleen, a pro-government militia force, for economic reasons in drought periods, the evidence for rebel participation for the same reasons is sporadic but exists. However, this situation is more related to ethnic affiliations and revenge. In other words, in contrast to the findings in *Chapter 3*, exclusive and discriminatory attitudes and state policies of the Muslim Arabized North against the non-Muslim African South were the main motivations for people to join pro-government militia forces and/or rebel groups. Nevertheless, given the military and financial support of the government, it is not surprising that most of the nomadic tribes (e.g., Baqqara) fought alongside the government forces against the Dinka (see Eastin & Zech (2022)). Despite being from the same socio-cultural and regional background, a similar process took place between pro-government Nuer forces and the Dinka. With government military and financial support alongside grievances against the Dinka domination in the SPLA, most Nuer fought against the Dinka. Regarding my second proposition, droughts/famines did not necessarily undermine the state capacity of Sudan. Although there were problems in providing basic social services (e.g., delivering international humanitarian aid) to drought-stricken social groups, they were rather Khartoum’s deliberate attempts. Furthermore, oil revenues that began to

arrive in the late 1990s offered an exit option for the al-Bashir regime: (i) the compensation of the Sudanese agricultural economy's loss during drought periods and (ii) the maintenance of counterinsurgency operations for having a better position on the battleground or at the bargaining table.

All in all, the evidence supporting these two causal mechanisms above is strong. In other words, the evidence I have found passes Van Evera's (1997) doubly-decisive test since it is certain and unique. It is a well-known fact that finding evidence that can pass the doubly-decisive test is an arduous task in social sciences. Therefore, my minimalist process tracing aims to find some evidence passing at least the hoop and/or smoking-gun tests for a plausibility probe (see Beach & Pedersen (2019, Chapter 8)). Nevertheless, my propositions pass the doubly-decisive test and are strongly supported by the evidence at hand. What does all this tell us? Droughts-triggered famines in Sudan contributed to the prolongation of the civil war by increasing the rebel or pro-government militia participation. However, the state capacity of Sudan did not decrease in a way to undermine counterinsurgency operations against the SPLA/Dinka due to the manipulation of international humanitarian aid and predominantly oil revenues. Therefore, compared to Chad, the second Sudanese Civil War ended with a peace agreement rather than a rebel victory.

Chapter 6

ETHIOPIA

The previous two chapters are the primary cases of my dissertation, in which I examined how varying drought periods impacted civil war dynamics in Chad and Sudan. While Chad was the most-likely case in which both the persistent Sahel drought and the prolonged first Chadian Civil War occurred simultaneously, Sudan was an equifinality case in which even short drought periods led to the prolonged second Sudanese Civil War by providing an alternative causal mechanism. In Chad, the Sahel drought caused a prolonged civil war by undermining the livelihood of people but predominantly state capacity. In Sudan, however, the occurrence of a prolonged civil war was rather related to a power struggle over oil resources, in which short drought periods helped the central government build a counterinsurgency strategy by using famines and international emergency aid to its advantage. While the Chadian case confirms my theoretical model in which persistent droughts could lead to prolonged civil wars by undermining people's livelihoods and state capacity, the Sudanese case, however, points out how even short drought periods could lead to prolonged civil wars if there were a power struggle over natural resources between warring parties. To control whether these conclusions are valid, in this chapter, I will examine another case from East Africa: Ethiopia. In contrast to Chad and Sudan, Ethiopia is a falsification case in which even a persistent drought can fail to prolong the ongoing civil war due to not meeting my theoretical model's scope conditions (see *Tables 8* & *9* in *Part II*). Before concluding my overall argument in the ensuing chapter, the Ethiopian case here is

expected to show the scope conditions of my theoretical model (see *Figure 5* in *Chapter 3*) and whether persistent droughts are a sufficient cause for prolonged civil wars. To this end, I will focus on the impact of drought on the Ethiopian Civil War after providing background information on the civil war case. After tracing the process of the Ethiopian Civil War, I will endeavor to reach a conclusion about the scope conditions of my theoretical model.

6.1 Introduction

Similar to Chad and Sudan, Ethiopia is at the intersection of diverse geographic and cultural heritages, which often led to social, economic, and political problems, along with several rebellions, a revolution, and a civil war. Among African countries, Ethiopia is strategically important in world politics because of its border with the Red Sea, which is one of the most common transit routes in world trade. Despite its strategic importance in world trade, Ethiopia is considered one of the world's least developed countries (LDCs) and ranked 175 out of 191 countries by the 2021/2022 United Nations Human Development Index (UNDP Team, 2022b, p. 307). Although the *ancien régime* under Emperor Haile Selassie I attempted to modernize the state apparatus and develop rural society through several bureaucratic, land, and tax reforms, his enlightened despot policies fell short of overcoming the hegemonic block of conservative social groups, namely the nobility and the *Ethiopian Orthodox Church*. Furthermore, with the increasing impact of decolonization in Africa after World War II, the Empire had to deal with the nationalist and separatist goals of peripheral social groups such as *Eritrean*, *Tigray*, and *Somali* people, who were opposed to the dominant *Habesha* identity, consisting mainly of the Christian Semitic *Amhara* people. In addition to the historical class struggle among the crown, nobility, and peasants, the Empire's failure to respond

to growing and changing social and economic demands led to a revolution by *radical inteligência* in 1974, which was later hijacked by a military junta, the *Derg*. To achieve its socialist goals, the Derg embarked on several radical policies, ranging from creating peasant associations to expropriating rentals in urban areas. Although the Derg under Mengistu Haile Mariam tried to transform the state apparatus and social fabric by implementing consecutive radical socialist policies, the ruling core remained largely the same in terms of culture, ethnic base, and personalistic governing style. The rapid transformation and the failure of the military junta to meet the increased expectations led to the revival of historical animosities between the Christian Semitic Amhara ruling core and the peripheral Eritrean, Tigray, and Somali people for self-determination and independence. The Ethiopian Civil War, which lasted from 1974 to 1991, had largely come to an end for three main reasons: (i) a united/coordinated rebel front against the Mengistu regime was formed by the Eritrean (EPLF) and Tigray (TPLF) rebel forces, and (ii) the Derg's socialist economic policies failed in overcoming economic problems, particularly with the withdrawal of the Soviet support. In addition to the socialist policies implemented by the Derg, (iii) the 1984-1989 drought period also played a role in exacerbating economic problems and thus undermining state capacity.

As mentioned earlier, it is difficult to explain complex civil war dynamics using a few specific factors. Nevertheless, this chapter attempts to trace the impact of the 1984-1989 drought period on the demise of the Derg/Mengistu in 1991, which led to the military victory of the Eritrean People's Liberation Front (EPLF) and the subsequent independence of Eritrea in 1993. Furthermore, with the overthrow of Mengistu, the Tigrean People's Liberation Front (TPLF) took control of Addis Ababa to re-establish central control over the country. In fact, the Ethiopian Civil War or Revolution can be

traced back to Ras Tafari's accession to the throne. After the death of Emperor Menelik II in 1913, who attempted to establish central authority over peripheral regions like his predecessors Tewodros II and Yohannes IV, Ethiopia entered the *interregnum period* in which the Regent of Empress Zewditu, Ras Tafari Makonnen,[188] became the Emperor of Ethiopia in 1930. With his new regnal name, Emperor Haile Selassie I embarked on modernization programs aiming to transform the state apparatus and rural society, ranging from drafting the *1931 Constitution* to implementing new land and tax reforms, which were vehemently opposed by conservative social groups such as the nobility and the Church. Such modernization efforts, however, were disrupted by a short period of Italian occupation between 1936-1941, in which Eritrea was controlled by Fascist Benito Mussolini because of Eritrea's strategically important seaports in the Red Sea (e.g., *Massawa* & *Assab*). During the occupation years, Eritrea became more developed than other parts of Ethiopia due to massive Italian infrastructure investments, which later years facilitated the formation of a separate Eritrean identity. After the British *East Africa Campaign* in the region, Ethiopia was liberated from Italian occupation but became a semi-colonial state of the British Empire in the post-World War II period. Returning to his country after the end of the Italian occupation, Emperor Haile Selassie I continued his modernization efforts and tried to fix his deteriorated image by joining

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[188] Interestingly, Ras Tafari Mekonnen was related to slave rebellions in the Caribbean in the 18th century, in which his ascendence to the throne in Ethiopia in 1930 was considered the coming day of deliverance by African slaves in Jamaica. The *Rastafarians* considered Ethiopia as *Zion* and Ras Tarafi Mekonnen (later Emperor Haile Selassie I) as their expected *savior*. Although Emperor Haile Selassie I granted land endowments to the Rastafarians in the southern part of Addis Ababa, Mengistu Haile Mariam reduced their land endowments for potential security threats to his throne. Most Rastafarians have not integrated well with Ethiopian society. The most renowned figure and symbol of the Rastafarian movement were Bob Marley and his *reggae* musical style. For more information on the Rastafarian movement, please see: Shinn & Ofcansky. (2013). 'Rastafarians'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 347–348).

the United Nations and pioneering the establishment of the *Organization of African Unity* (OAU), which was later terminated and the *African Union* (AU) was created.

Although Emperor Haile Selassie I attempted to modernize the *ancien régime*, they were not able to meet the demands of Ethiopian society. The emperor tried to modernize the state bureaucracy, the army, and the economic structure with several reform programs, but almost all of them were met with fierce opposition from conservative and progressive social groups, as they were considered either designed to undermine their power and status or not sufficient to meet people's demands. In this regard, particularly the attempts to change the land tenure system, containing different applications in the North and South, and the newly emerging educated/literate radical elite (e.g., university graduates), left their mark in creating revolutionary conditions. Furthermore, Emperor Haile Selassie I had to fight the *Eritrean Liberation Front* (ELF) in order to prevent the separation of Eritrea from the Empire. The triggering factor was the annexation of Eritrea by Ethiopian forces with the claim that Eritrea was one of Ethiopia's provinces, although that claim was a violation of the 1952 UN Resolution in which Eritrea was given regional autonomy. The root cause, however, was the domination of the Habesha identity in Ethiopian politics at the expense of peripheral social groups, mainly the Eritrean, Tigray, and Somali peoples. Despite the support of Western countries (e.g., Britain & the US) for Emperor Haile Selassie I, widespread popular protests led to the overthrow of the emperor.

After the end of the initial phase, the 1974 Revolution was trapped in a leadership struggle in which several radical social groups began to argue over how to consolidate the revolution and what direction it would take. Seizing this political vacuum, the Ethiopian army took control of the country and hijacked the revolution as

a latecomer. In 1977, however, Mengistu Haile Mariam emerged as the leader of the military junta, the Derg, after liquidating his two rivals, Tafari Benti and Atnafu Abate. The Derg under Mengistu transformed the *ancien régime* into a totalitarian socialist state through several radical socialist reforms: the creation of a planned economy; changes in the land tenure system; the implementation of resettlement programs; the creation of cooperatives, collectives, and state farms; the propagation of a new state ideology and the indoctrination of masses; the establishment of a single vanguard party; the creation of unions and associations; and improvements in armed and police forces. Nevertheless, the Derg and Mengistu were not able to escape from the consequences of planned economies, as many socialist states faced during the Cold War: a deep economic crisis in the late 1980s. With diminished Soviet support under Mikhail Gorbachev in the late 1980s, Mengistu left the planned economic model and attempted to pursue a more liberal economic model for Western aid and loans. The armed struggle with the *Western Somali Liberation Front* (WSLF) in the south (Ogaden) during the 1970s and the ongoing clashes with the EPLF and TPLF in the north (Eritrea & Tigray) since the 1974 Revolution, along with the adverse effects of the 1984-1989 drought period, weakened Addis Ababa's power in the face of peripheral rebel groups. In 1991, the EPLF gained de facto independence, and the *Ethiopian People's Revolutionary Democratic Front* (EPRDF), an umbrella rebel organization led by the TPLF, took control of Addis Ababa; thus, a 30-year-long Eritrean War of Independence and a 17-year-long Derg regime in which the Ethiopian Civil War took place came to an end with a rebel victory.

Even though the overall argument of my theoretical model states that persistent droughts could lead to prolonged civil wars ending with either a rebel victory or peace

settlement, the Ethiopian Civil War (1974-1991) ended with a rebel victory in a relatively short time, despite the occurrence of a persistent drought in the years 1984-1989 simultaneously. Although the Ethiopian case initially seems to falsify my theoretical model and propositions, it nevertheless sheds light on the scope conditions in which the proposed theoretical model could exist. The Ethiopian Civil War was terminated by a rebel victory in a relatively short period of time despite the occurrence of a persistent drought in the last years of the civil war, mainly due to three factors: (i) the rebel forces in the north, namely the EPLF and TPLF, were able to form a united front against the Mengistu regime, and (ii) the planned economic model implemented by the Derg over the revolutionary years did not bring the expected prosperity to Ethiopian society, particularly after the withdrawal of Soviet financial and military support. Moreover, (iii) the 1984-1989 drought period, in part, played a role in undermining the already fragile Ethiopian agricultural economy. Given that undermined state capacity due to drought-induced economic and social problems (e.g., famines) is a common theme with varying degrees in my other cases (Chad & Sudan), I argue that (i) whether rebel groups are able to form a unified/coordinated rebel front against the central government and (ii) whether central governments are able to receive external support against economic problems and security threats are the scope conditions of my theoretical model and propositions. In other words, when rebel forces are able to form a united front against government forces and/or when central governments are unable to receive external support, be it financial or military, one can anticipate that persistent droughts contribute to shorter civil wars. Otherwise, one can expect relatively longer

civil wars, even if a persistent drought period occurs simultaneously with an ongoing civil war.[189]

To elaborate on the argument above, I begin by providing background information on Ethiopia, namely its geographical, ethnic, and economic structures; the re-establishment of the *ancien régime*; the short Italian occupation (1936-1941); and Emperor Haile Selassie I's modernization program, which led to the 1974 Revolution. Then, I follow the chronological order of Mengistu's rise in Ethiopian politics as the chairman of the Derg, from the 1974 Revolution to the collapse of the Derg regime in 1991, in which both the Eritrean War of Independence (1961-1991) and the Ethiopian Civil War (1974-1991), along with a persistent drought (1984-1989), occurred simultaneously. To support my propositions on how the 1984-1989 drought period can impact civil war dynamics, I provide evidence from historical records of the FBIS whenever possible.

6.2 Background of Mengistu Era

Like any other civil war case, the Ethiopian Civil War is a complex process in which several factors play a role in initiating, prolonging, and terminating the civil war. Therefore, as I did in the previous two civil war cases (Chad & Sudan), I examine the role of geography, ethnic groups, economic structure, Italian occupation, and the modernization project of Emperor Haile Selassie I, which triggered several riots on the

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[189] It is important to note that the outcomes of the Ethiopian case support Hypothesis 2(b): *In civil wars having multiple rebel groups, droughts are more likely to end prolonged civil wars with either a government or a rebel military victory* (see *Chapter 3*). However, Chapter 3 uses a global sample of civil wars so that there may be some contradictory outcomes with specific case studies, such as the Ethiopian Civil War. With a competing risks survival model in Chapter 3, I do not find any empirical evidence for Hypothesis 2(b). Nevertheless, Chapter 6 provides empirical evidence in contrast to the findings of Chapter 3.

road to the 1974 Revolution. Thus, I aim to understand the complex process of the civil war onset under the Derg/Mengistu regime (19741991) and its continuation thereafter.

6.2.1 Geographic, Economic & Social Structures

As an example of the "development paradox," Ethiopia is one of the least developed countries (LDCs), despite having abundant resources and a strategic location in the Red Sea, which is one of the most important transit routes of international trade (Wubneh & Abate, 1988, p. 3). Such importance has caused Ethiopia to always occupy an indispensable position in world politics, as it did during the Cold War.[190] Although its importance is mainly due to its strategic location in the *Horn of Africa*, Ethiopia still differs from other East African countries for two reasons. First, like Israel in the Middle East, the Ethiopian population is mostly non-Muslims (e.g., Christians & Animists) but surrounded by Muslim-dominated countries, such as Sudan and Somalia (Clapham, 1988, p. 25). Second, compared to other countries in the same region, Ethiopia has a climate and soil type that is more suitable for agricultural production since it receives more precipitation (Abate (1993); see also *Figure 13* below).

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[190] Although American interest in Ethiopia started in the 1920s, genuine relations started in the post-World War II period during the Cold War. Since the early 1940s, the US considered Ethiopia a vital security partner in the Horn of Africa and sent military assistance to Emperor Haile Selassie I. In return for sending its *Kagnew Battalions* to the *Korean War* (1950-1953) on the US side, Ethiopia was allowed to abolish the autonomous status of Eritrea and incorporate it into the Ethiopian Empire as an integral part. In turn, the US was permitted to open a telecommunication base near Asmara, the *Kagnew Station*, which was the biggest US base at that time and was established for counterintelligence operations against Soviet communication and propaganda. Under the Mengistu regime, however, the Kagnew Station was closed in 1977 owing to deteriorating relations with the US and the Derg. Although Ethiopia was an African country receiving the most US aid during the Emperor Haile Selassie I era, Mengistu developed cordial relations with the Soviet Union and other socialist countries from the 1974 Revolution to the collapse of the Derg regime in 1991. For more information on the Kagnew Station and the US-Ethiopian relations, please see: Shinn & Ofcansky. (2013). 'United States (U.S.)'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 405–407).

In fact, the variation in climate, soil type, and population density is in line with Ethiopian topography, in which the *Great Rift Valley* divides the mountain complex into *plateaus* and *lowlands* in a northeast-southwest direction. While the lowlands and semi-desert plains occupy the eastern and northern parts, the highlands, tropical rainforests, and savannah grasslands occupy the central and western parts of Ethiopia. In general, the lowlands are semi-arid areas with little rainfall and hot temperatures, whereas the highlands receive adequate rainfall and have cool temperatures.[191] Most Ethiopians, therefore, settle in the highlands and occupy livestock raising and subsistence agriculture. In contrast to sedentary people in the highlands, fewer people in the lowlands adopt a nomadic lifestyle and mainly engage in livestock raising with little or no agriculture. As an indication that Ethiopia is mostly a rural and peasant-based society, approximately 90% of its population engages in farming, which constitutes almost 60% of its GDP. Ethiopia also has the largest livestock population on the African continent. Nevertheless, almost 15% of its arable land is under cultivation, and the land tenure system is mostly tilted in favor of the northern aristocracy, nobility, and clergy at the expense of the southern peasantry. The scarcity of arable lands due to natural reasons and the discriminatory/exclusionary nature of the land tenure system would constitute the political economy of early riots in the Haile Selassie I era and the

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[191] Ethiopian climatic zones are conventionally categorized as (i) the *dega* (ii) the *weine dega* (iii) the *kola* according to regions' rainfall, temperature, and elevation. While the dega identifies cool regions between 2,300-3.300 m. high altitudes with 0º-10º C, the kola identifies hot regions between 500-1,500 m. high altitudes with a temperature of approximately 30º C. The weine dega, on the other hand, identifies temperate regions between 1,500-2,300 m. high altitudes with an average temperature of 15-20º C. For more information on Ethiopian climatic zones, please see: Abate. (1993). The Society and Its Environment. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 69–141). U.S. Government Printing Office. (pp. 77–78).; Wubneh & Abate. (1988). *Ethiopia: Transition and Development in the Horn of Africa*. Westview Press. (p. 6).

subsequent 1974 Revolution and civil war. Furthermore, Ethiopia is not as rich in mineral resource assets as its neighbor, Sudan. The contribution of mining (e.g., gold) to its GDP is very small (<1%). Moreover, it lacks a detailed oil and natural gas exploration program, which has been a major obstacle to the extraction of mineral resources. Finally, Ethiopia lacks an adequate transportation system due to the region's mountain complex, except for Eritrea, where the Italian occupation brought massive infrastructure investment to the region. Slightly more than 10% of the Ethiopian population during the 1970s, for instance, had access to roads. Therefore, Ethiopia carries a large part of its international trade through limited domestic railway networks and its two ports in the Red Sea: Massawa and Assab (Abate, 1993, pp. 72–79, 82–83; Tareke, 1991, pp. 32, 34–36; Wubneh & Abate, 1988, pp. 4–9; see also Wubneh (1993); Tareke (1991, Chapter 3)).

Similar to Chad and Sudan, the geographic, climatic, and economic contrasts among Ethiopian regions coincide with the Ethiopian ethnic fabric. As an indication of its ethnic diversity, the Ethiopian population speaks more than 70 languages and almost 150 dialects, which are generally categorized under *Cushitic*, *Semitic*, *Omotic*, and *Nilotic* language groups (Abate, 1993, p. 91; Tareke, 1991, pp. 32–33). Since the numerical size of Omotic (e.g., *Welamao*) and Nilotic (e.g., *Nuer* & *Anuak*) people is

relatively small (~5%),[192] I will rather focus on ethnic groups that are numerically large and politically more influential: the *Amhara*, *Tigray*, *Oromo*/*Galla*, and *Somali*.[193]

The Cushitic people consist of the Oromo/Galla, Somali, and *Afar* ethnic groups, occupying the southern, eastern, and southeastern parts of Ethiopia, namely the *Oromia*, *Ogaden*, and *Afer* regions, respectively. Of these Cushitic people, the largest group is the Oromo/Galla, who constitute 40% of the population. Despite being the most numeric ethnic group in Ethiopia, the Oromo/Galla people do not display cohesion in terms of economic activity, religion, or the social/political system. Nevertheless, most of them have a semi-nomadic lifestyle, in which they occupy pastoralism and subsistence agriculture. Moreover, one can find believers in Animism, Islam, and Orthodox Christianity among them; however, most of them were thought of as Muslims. Some fully integrated into the Amhara-dominated Habesha culture by learning Amharic, thus achieving prestigious positions in Addis Ababa. The Somali people, on the other hand, have historically been in conflict with the Habesha identity/*Abyssinian society* due to religious differences (Islam) and administrative issues (autonomy). Given the territorial dispute between Somalia and Ethiopia over the Somali-dominated Ogaden region, Addis Ababa has been reluctant to provide a true number of the Somali people in Ethiopia. The least numeric Cushitic group is the Afar people, who occupy a

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[192] Mostly occupying subsistence agriculture and animal husbandry, the Omotic and Nilotic people have historically been exposed to foreign influence. Therefore, many converted from Animism to Christianity and Islam through the impact of Christian missionaries/colonizers and Muslim traders/invaders, respectively. For more information on the Omotic and Nilotic language groups, please see: Abate. (1993). The Society and Its Environment. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 69–141). U.S. Government Printing Office. (pp. 98100).; Tareke. (1991). *Ethiopia: Power and Protest—Peasant Revolts in the Twentieth Century*. Cambridge University Press. (p. 33).

[193] For more detailed information about the ethnic configuration of Ethiopia and how it has formed over time, please see: Levine. (2000). *Greater Ethiopia: The Evolution of a Multiethnic Society*. The University of Chicago Press. (Chapter 3).

strategically important region of the Red Sea. Like the Somali, most are Muslim and live a nomadic lifestyle in the quasi-autonomous Afer region (Abate, 1993, pp. 94–98; Tareke, 1991, p. 33).

The Semitic people, on the other hand, comprise the Amhara, Tigray, *Harari*, and *Ader* groups, occupying the *Amhara* and *Harer* regions. Although the last two Semitic groups (Harari & Ader) are relatively small in size and largely confined to the Harer region, the Amhara and Tigray constitute the majority of the Semitic people. Furthermore, the first two Semitic groups (Amhara & Tigray), particularly the Amhara, have been the dominant ethnic groups in Ethiopian society since the ancient *Kingdom of Aksum*[194], constituting almost 50% of the total Ethiopian population: approximately 30% Amhara and 15% Tigray. Given their cultural and political dominance in Ethiopian society (see Clapham (1988, pp. 23–25)), one can easily find the Amhara in almost every region as civil administrators, military personnel, and settlers. Their language and urban center, *Amharic* and Addis Ababa, is the *lingua franca* and capital city of Ethiopia. The Tigray, however, is largely confined to their homelands, the *Tigray* and *Eritrea* regions. Last but not least, the two aforementioned Semitic groups are predominantly Orthodox Christians and mostly occupy agriculture (Abate, 1993, pp. 91–94; Tareke, 1991, p. 33; see also Clapham (1998, pp. 23-26)).[195]

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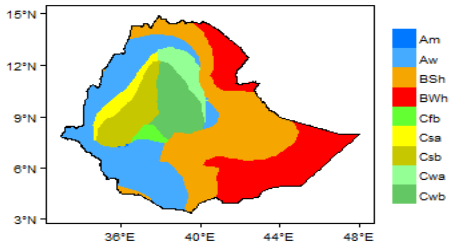
[194] For more information on the Kingdom of Aksum and the early periods of Ethiopia up to the re-establishment of the monarchy after the Age of Princes (*Zemene Mesafint*) in the mid-18th century, please see: Turner. (1993). Historical Setting. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 1–68). U.S. Government Printing Office. (pp. 6–24).

[195] For more detailed information on Ethiopian geography, climatic zones, ethnic groups, religions, and the relations between Judaism, Christianity, and Islam in Ethiopia from a historical perspective, please see: Trimingham. (1965). *Islam in Ethiopia* (2nd Impression). Barnes & Noble. (Chapter 1).



Am: Tropical monsoon climate | Aw: Equatorial savannah with dry winter | BSh: Hot steppe climate | BWh: Hot desert climate | Cfb: Temperate oceanic climate | Csa: Hot-summer Mediterranean climate | Csb: Warm-summer Mediterranean climate | Cwa: Monsoon-influenced humid subtropical climate | Cwb: Subtropical highland climate

Figure 13: Climatic Zones of Ethiopia[196]

6.2.2 Re-establishment of Monarchy, Early Modernization Attempts & Italian Occupation

Despite such diverse ethnic fabrics, there had historically been an Ethiopian identity based on the Habesha culture of Abyssinian society, in which membership in the Amhara ethnic group and affiliation with Orthodox Christianity were at the forefront.[197] The dominance of Amhara ethnicity and Orthodox Christianity in

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[196] This figure was created by using the CRU TS 3.21 Dataset by the Climatic Research Unit at the University of East Anglia, UK. Source: Harris et al. (2014). Updated High-Resolution Grids of Monthly Climatic Observations – the CRU TS3.10 Dataset. *International Journal of Climatology*, *34*(3), 623-642. For more information regarding the climatic zones of other countries, please see the Climatic Research Unit website: https://www.uea.ac.uk/web/groups-and-centres/climatic-research-unit/data.

[197] Although some (e.g., Young (1997, pp. 3–4)) do not agree with this argument because of insurgencies against the Amhara-dominated Habesha culture (e.g., Tigray, Eritrea & Ogaden), Levine (2000, Chapter 2) claims that Ethiopia has a complex but unifying central identity, in which several ethnic groups have contributed to its evolution over centuries. Although Levine rightly highlights the assimilationist aspect of the Habesha identity (e.g., most Oromo became Amhara culturally), I argue that there has been no inclusive Ethiopian identity in which non-Amhara/Tigray and non-Christian ethnic groups have an equal say in the administration of the Ethiopian state. Peripheral insurgencies in Eritrea and Ogaden were mainly the result of this exclusionist Habesha identity centered around being Amhara/Tigray and Christian.

Ethiopian identity has always been problematic among other peripheral non-Amhara Muslim ethnic groups, mainly the Somali and Eritrean. In fact, the formation of the Habesha identity has historical roots, going back to the Kingdom of Aksum, established by Arab migrants from southwest Arabia to control sea trade in the Red Sea, who converted to Christianity in the fourth century. With the spread of Islam in the Horn of Africa, however, the Kingdom and Church were isolated from their fellow Christians in Egypt (*Coptic Church*) and Eastern Europe (*Eastern Orthodox Church*). With the transition of the throne from the Northern *Zagwe Dynasty* to the Central *Solomonic Dynasty*[198], both the Amhara and Tigray formed a united front against Muslim invasion in the Horn of Africa with the help of the *Portuguese*, whose goal at that time was to reach the Kingdom of Prester John[199] as well as control sea trade routes. With a prolonged series of Oromo/Galla migrations in the 16th century from the southwest to the central highlands, the Solomonic Dynasty gradually lost control over Ethiopian territories. Furthermore, the Catholicism brought by the Portuguese, the European

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[198] Among the Amhara and Tigray ethnic groups, the Zagwe Dynasty was seen as a usurper since they did not have any lineage to ancient Israel. Given that the Kingdom of Aksum was an offspring of the union between *King Solomon* and the *Queen of Sheba*, the lineage of the Zagwe Dynasty to the Kingdom of Aksum, not ancient Israel, was considered insufficient by the Amhara and Tigray people to be the legitimate ruler in Ethiopia. Therefore, having a lineage to the Kingdom of Aksum and ancient Israel, the Solomonic Dynasty was viewed as the legitimate ruler of Ethiopia who came to restore the Solomonic line of the throne. For more information on the Solomonic Dynasty, please see: Turner. (1993). Historical Setting. In T. P. Ofcansky & L. Berry (Eds.), Ethiopia: *A Country Study* (4th Edition, pp. 1–68). U.S. Government Printing Office. (pp. 13–15).

[199] A mythical Christian priest-king who thought to send letters to other Christian kings. The rumors about his lost kingdom, where poverty was unknown, began circulating in Europe in the 12th century. These rumors and imaginations attracted many medieval Europeans, including Marco Polo, to search for Prester John and his lost kingdom. In the medieval era, European scholars/theologians argued that Prester John lived in Ethiopia which was thought as a part of India at that time. Particularly Portugal's Prince Henry (1394-1460) was interested in finding and convincing Prester John to join in his war against Islam. After the death of Prince Henry, however, the European interest in finding Prester John faded gradually. For more detailed information on Prester John, please see: Shinn & Ofcansky. (2013). 'Prester John'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (p. 339).

colonization by the British, French, and Italian (*Scramble for Africa*), and Egyptian attempts to control the Red Sea coast further deepened the existing security problem. In such a power vacuum known as *Zemene Mesafint* (Age of Princes)[200], a number of rulers (e.g., Tewodros II, Yohannes IV & Menelik II)[201] were nevertheless able to re-establish central political authority in the mid-19th century through a series of reforms and conquests (Turner, 1993, pp. 3–4, 6-33; Wubneh & Abate, 1988, pp. 9–15; see also Clapham (1988, Chapter 2); Tareke (1991, Chapter 2)).[202]

Although early restoration attempts started during the reign of Tewodros II, the most important steps in centralization were taken by Menelik II, whose fame was based on his military victory against Italy in the *Battle of Adwa* (1896). Like his predecessors

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[200] Known as the Age of Princes, the Zemene Mesafint indicates a specific period in Ethiopian history in which several warlords controlled peripheral areas of the *Gonder Kingdom* in the North against the Oromo/Galla migrations from the southwestern regions. During that time, Gonder monarchs were unable to control wealth and manpower against increasingly autonomous nobility in the peripheral regions. Around 1800, for instance, there were six different warlords/emperors in the Gonder Kingdom, claiming the right to rule the highlands, and thus the throne. For more detailed information on the Zemene Mesafint, please see: Turner. (1993). Historical Setting. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 1–68). U.S. Government Printing Office. (pp. 22–24).

[201] From the mid-19th century to the accession of Ras Tafari Makonnen, three different strong monarchs (Tewodros II, Yohannes IV & Menelik II) were able to re-establish imperial control against the nobility (*negusa nagast*) in the periphery and the European and Egyptian colonizers in the Red Sea through a series of reforms in the administration, the Church, the army, and the land tenure system, along with a series of military conquests. Particularly the military victory against Italy in the *Battle of Adwa* (1896) brought "Ethiopia new prestige as well as general recognition of its sovereign status by the European powers" during the reign of Menelik II (Turner, 1993, p. 32). The different lineages of these three monarchs also indicate how Ethiopian high political echelons were open to those who showed prowess and competence. For more detailed information on the early attempts at monarchial re-establishment in the 19th century, please see: Turner. (1993). Historical Setting. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 1–68). U.S. Government Printing Office. (pp. 24–33).; Wubneh & Abate. (1988). *Ethiopia: Transition and Development in the Horn of Africa*. Westview Press. (pp. 12–15).

[202] Regarding the scholarly debate on the differences and similarities of Ethiopian state- and nation-building processes with the Western European model, and how the Ethiopian state and identity have unique historical roots, please see: Clapham. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge University Press. (Chapter 2).; Tareke. (1991). *Ethiopia: Power and Protest—Peasant Revolts in the Twentieth Century*. Cambridge University Press. (Chapter 2).

(e.g., Tewodros II & Yohannes IV), Menelik II embarked on a series of reforms, ranging from administrative reforms to changes in the land tenure system, along with a series of military conquests against rebellious nobles in the peripheral regions. Such centralization/modernization attempts bore fruit in the Battle of Adwa against formidable Italian forces who aimed to colonize the Ethiopian Empire during the Scramble of Africa period. It is worth highlighting that the Ethiopian military victory brought not only fame to Menelik II and the recognition of Ethiopian independence among European powers, but also a sense of national pride to Ethiopians, which had a lasting impact on future generations. For instance, one of the common themes used by the *Young Ethiopians*, *Resistance Movement*, and *Black Lion Organization* for mass mobilization against the 1936-1941 Italian occupation was the sense of national independence emanating from the Battle of Adwa. Furthermore, the Battle of Adwa was compared to the 1905 Russo-Japanese War by the *inteligência* since it undermined the arguments of the so-called white supremacy and European *mission civilisatrice* (civilizing mission) over black Africans and the non-Western world. Despite its significance in domestic and international politics, the achievements of military victory were not transformed into economic security/prosperity due to *economic concessions* to European powers (railway to French and banking to British) and the 1900 *Boundary Delimitation Agreement* with Italy, in which Eritrea was recognized as an Italian colony. The latter, in particular, prevented the Ethiopian monarchy from having an outlet to the Red Sea for international trade, which was only solved when Eritrea was liberated from

the five-year-long Italian occupation in 1941 and established a federation with Ethiopia in 1952 (Turner, 1993, pp. 27-33; see Zewde (2016, Chapter 3)).[203]

Promising developments during the reign of Menelik II came to a halt when the emperor had health problems since he did not have an heir to the throne in his line. Worried that their interests in the Horn of Africa could be threatened by Menelik II's death, colonial powers (e.g., Britain, France & Italy), for instance, signed the 1906 *Tripartite Agreement*, in which they promised to maintain the *status quo* in the region. The period from Menelik II's illness and death (1910s) to Ras Tafari Makonnen's accession to the throne (1930s) was considered an *interregnum*, a period of power struggle between the royal family and nobility. Despite the fact that Menelik II attempted to hand over the throne to his nephew, Lij Iyyasu, along with his wife Empress Taytu Betul's indirect control of the throne, Ras Tafari was able to overcome the obstacles on his road to the throne by manipulating the opposition against Iyyasu and Empress Betul to his advantage. The opposition against Iyyasu was mainly centered around his reforms that alienated the nobility, the rumors that he became a Muslim, and the establishment of cordial relations with a Muslim empire, the Ottomans and Sudan. With the overthrow of Iyyasu, Ras Tafari first became the regent of Empress Zewditu in 1916, and then the heir to the throne. With the death of Empress Zewditu in 1930, Ras Tafari Makonnen was finally crowned as Emperor under the name of Haile Selassie I (Turner, 1993, pp. 33–35; see also Zewde (2016, Chapter 3)).

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[203] Although one can find scattered information on the Battle of Adwa and its impacts on Ethiopian history, the subsequent Italian occupation between 1936-1941, and the *interregnum* period, in which Ras Tafari Makonnen rose as the emperor, in the academic sources I reviewed, the most detailed information can be found here: Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapters 3-4).

In fact, Ras Tafari's attempts to become a modernizer emperor date back to when he became a regent to Emperor Zewditu in 1916. The most salient divergence between Empress Zewditu and Regent Tafari Makonnen was in the support they received. While Empress Zewditu was supported by conservative forces (e.g., nobility & Church), Regent Tafari was supported by progressive forces (e.g., *inteligência*) and foreign actors (e.g., Great Britain). Similarly, Empress Zewditu represented those who aimed for complete independence, but by protecting the *ancien régime*, whereas Regent Tafari was the leader of those who aimed for progress through dependence on European powers. In this regard, for instance, Regent Tafari made Ethiopia a member of the League of Nations (1923), made a grand tour to Europe (1924), and developed good relations with Western countries. Furthermore, he replaced the ministries/bureaucracy established by Menelik II with the young educated, who were thought of as more progressive and loyal. Becoming an Ethiopian emperor following a pompous coronation ceremony in 1930, Haile Selassie I accelerated his attempts to reduce the power of the old establishment for the centralization process around his personality. Although the emperor was seen as progressive, he nevertheless was cautious in not alienating the nobility too much. Therefore, he pursued a two-tier strategy: (i) he tried to consolidate the political power of the monarchy while (ii) not undermining the economic privileges of the nobility. In this regard, for instance, Emperor Haile Selassie I promulgated a new constitution in 1931, appointed the *nouveau riche* to administrative posts and granted hereditary rights to the nobility over tributary lands. The new constitution, in particular, regulated the succession process to the throne, the relations between the monarchy and nobility, the structure and functions of the bicameral parliament, and the absolute powers of the emperor. Instead of changing the land tenure system that exploited the

peasantry and tenants, the emperor guaranteed the land tenure rights of the nobility for the security of the throne. Furthermore, the emperor paid special attention to strengthening the army, particularly the *Imperial Bodyguard*, with the help of foreign advisers (e.g., Belgium, France, Sweden) and made changes in the provincial administration as well to control the rebellious peripheral regions (e.g., Tigray) (Clapham, 1988, pp. 27–28; Tareke, 1991, pp. 42–48; Turner, 1993, pp. 35–36; Wubneh & Abate, 1988, pp. 15–18; see also Zewde (2016, Chapter 3).

Despite being short, the 1936-1941 Italian occupation suspended the centralization and modernization steps that Emperor Haile Selassie I took in the late 1910s. As mentioned above, realizing that their regional interests could be threatened by an independent Ethiopia after the 1986 Battle of Adwa, the colonial powers (Great Britain, France & Italy) signed the 1906 Tripartite Agreement in order to maintain the *status quo* in the Horn of Africa. With the advent of the *National Fascist Party* in Italy in the 1920s, however, Benito Mussolini restarted Italian colonization attempts in Africa in order to restore the *Roman Empire*. Given the tacit British and French approval, the impotence of the League of Nations, and most importantly, the 1932 *Brenner Pass Confrontation* with Adolph Hitler regarding Italian irredentist claims over Austria, Mussolini embarked on the colonization of Ethiopia for power and glory. The triggering factor was the 1934 *Walwal Incident*, in which Italians violated Ethiopia's sovereign rights in defiance of the League of Nations Resolution. It is worth highlighting that both Great Britain and France were hesitant to take a stand against Italian occupation since they aimed to alienate Mussolini from Hitler by appeasing his *grandiose* goals. Using a disproportionate military force, including *mustard-gas*, Mussolini was able to control

Ethiopia without encountering strong military resistance in the north.[204] Although Southern Ethiopians resisted with a sense of another Adwa victory, the Italians hailed the victory of the *Second Italo-Ethiopian War* (1935-1937) as a settling of the past score. With the loss of the war, the emperor left Ethiopia and returned when the Italians were defeated with British help in 1941. Under its new name, *Africa Orientale Italiana* (Italian East Africa), Ethiopia attracted huge Italian investments, mainly around urban centers, in the form of road networks and new factories. Despite such infrastructure investments, the Italian colonial administration was burdened by heavy bureaucracy and corruption. Furthermore, Ethiopian social life, ranging from gender relations to food habits, was penetrated by Italian culture, which, in the end, triggered the reactions of conservative forces (e.g., nobility & Church). Last but not least, although Italians tried to reach the Fascist goal of *autarky* by setting up corporatist agricultural schemes, the expected yields never materialized. As a result, towards the end of the occupation, Italians were able to implement only 10% of their projected colonial scheme (Turner, 1993, pp. 36–42; see also Selassie (2009); Zewde (2016, Chapter 4)).[205]

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[204] The Walwa Incident or *Abyssinia Crisis* was one of the early warnings of the League of Nations' impotence with regard to maintaining international peace and security, since Italy/Mussolini did not comply with the League's resolution and occupied Ethiopia. Furthermore, during the occupation, the Italian Army committed war crime by resorting to mustard-gas, which was banned by the 1925 *Geneva Protocol*, an international treaty prohibiting the use of chemical and biological weapons in wars. For more information, please see: Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapter 4).

[205] Although Zewde (2016, Chapter 4) provides the most detailed information regarding Italian occupation, Selassie (2009, pp. 139-146) particularly highlights the adverse impact of Italian occupation on post-independence Ethiopia. Nevertheless, one can claim that short Italian colonization, more accurately 'occupation,' was less harmful to Ethiopian state- and nation-building processes compared to French and British colonization programs in Chad and Sudan, respectively (cf. Athow & Blanton (2002) & Blanton et al. (2001)).

6.2.3 Consolidation of Monarchy, Early Riots & Road to Revolution

Returning to his country after the end of Italian occupation in 1941, Emperor Haile Selassie I continued his modernization program from where he left off. But this time, he encountered stiff opposition to his reforms (e.g., coup attempts, peasant rebellions, separatist movements, and popular protests). Although the formation of such an opposition lay in the emperor's modernization program through economic and political reforms, it was also partly related to the fact that he left Ethiopia during the Italian occupation. While the conservative forces (e.g., nobility & Church) expected the restoration of the *ancien régime* and thus the maintenance of their privileges in the post-Italian occupation period, the progressive forces (e.g., *inteligência*) hoped to eradicate the remnants of the *feudal order*, such as the exploitative land tenure system and the privileged status of the nobility and the Orthodox Church. In addition to these two contradictory expectations, the emperor had to deal with the early warnings of secessionist movements in Eritrea, along with agrarian crises in multiple places, which emanated from the exploitative land tenure system and fiscal reforms. In most cases, however, Emperor Haile Selassie I was hesitant to harshly impose his reforms to maintain the balance of power between the monarchy on the one hand and the nobility and the Church on the other. Instead, he responded favorably to the demands of the rebel groups to maintain his throne, whose popular support had been waning since the Italian occupation. In 1942, for instance, the emperor decreed a new taxation system in which a fixed levy was placed on landowners according to the amount (e.g., *gasha* -40 hectares) and type of land (e.g., fertile, semi-fertile & poor). With the rebellions in the northern regions, however, the emperor either exempted the rebellious region from or reduced the amount of land for taxation. Furthermore, for the first time in 1948, he appointed an Ethiopian *abun* (patriarch) to the Ethiopian Orthodox Church instead of

the Egyptian one appointed by Alexandria (Coptic Church). Nationalizing the Church in order to appease the clergy, the emperor also strengthened state authority by simultaneously taxing church landholdings (Clapham, 1988, pp. 32-33; Tareke, 1991, pp. 80–85; Turner, 1993, pp. 42–50; Wubneh & Abate, 1988, pp. 17-23; see also Zewde (2016, Chapter 5)).

As is clear, aiming to maintain the balance of power for the security of his throne as well as the modernization of his country, Emperor Haile Selassie I pursued three-tiered policy reforms in the domains of foreign policy, economy, and domestic politics, which, in later years, led to agrarian revolts and secessionist movements in the periphery. Regarding the changes in Ethiopian foreign relations, Emperor Haile Selassie I had developed cordial relations with the US for military and financial aid/support since the beginning of the Cold War. The most obvious expression of rapprochement with the US was the opening of Kagnew Station in Asmara in 1943, by which the US Army was able to monitor the Soviet Union's communication and propaganda in the region. Although the British helped the Ethiopian army end the Italian occupation during World War II, British interventions in Ethiopian politics like a semi-colonizer state (e.g., the 1942 and 1944 *Anglo-Ethiopian Agreements* & British plans for the future of Eritrea & Ogaden), along with its dwindling power and status in the post-World War II period, alienated the emperor from Great Britain and pushed him to rely on the American presence through military, financial, education, and infrastructure investments and partnerships.[206] Cordial relations with the US culminating in the 1953 *Military and*

[206] While the first Anglo-Ethiopian Agreement (1942) imposed strict British control over Ethiopian diplomatic, administrative, economic, and security domains and paved the way for racist British attitudes and behaviors against Ethiopians, the second Anglo-Ethiopian Agreement (1944) gave relatively greater independence to Emperor Haile Selassie I in Ethiopian diplomatic, administrative, and economic

Financial Assistance Agreement, however, ended with the rise of Mengistu Haile Mariam during the post-revolution period, who advocated socialism and closer Soviet relations.

In addition to changes in foreign relations, Emperor Haile Selassie I embarked on reforming the old land tenure system similar to the European feudal system and the complicated taxation system in order to undermine the power of the nobility/gentry in favor of the central power around his personality. Before diving into what the emperor did in particular, it is worth highlighting Ethiopia's socioeconomic situation at that time. As mentioned briefly above, Ethiopia is a rural society in which approximately 90% of its population engages in farming, and the agricultural sector constitutes almost 60% of its GDP. Furthermore, over 90% of exports come from agricultural output, of which coffee constitutes almost 60% of the total export value, followed by pulses, and oilseeds. Ethiopia is also an African country with one of the largest livestock populations. Such a dominant agricultural sector also causes Ethiopian trade and industrial sectors to be relatively small, agriculture-oriented, and clustered around a few urban areas, such as Addis Ababa, Asmara, and Dire Dawa. In the 1960s, for instance, the trade sector constituted only 7% of the GDP, whereas the industrial sector constituted less than 5%. Furthermore, the trade sector is largely held by non-Amhara groups (e.g., Muslims, Jews & Greeks), whereas a large part of the industrial sector is held by foreigners (e.g., Italians, Dutch & British) and *petite bourgeoisie* after the entry and spread of mechanized/capitalist agricultural farming into the country during the 1950s and the

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domains. Furthermore, with regard to Eritrea and Ogaden, the British aimed to unite Eritrea with Sudan and Ogaden with British Somalia to prevent any security threats to their interests in the region as well as international trade routes. For more information, please see: Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapter 5).

1960s, respectively (Ottaway & Ottaway, 1978, pp. 17–21; see also Wubneh (1993); Zewde (2016, Chapter 5)).[207]

The above description of the Ethiopian economic structure clearly indicates how the agricultural sector, and thus the land tenure system, has become a central factor of Ethiopian society. Essentially, the land tenure system has historically been exploitative against peasants and has differed between regions (north versus south) since the reign of Menelik II. Therefore, as some scholars have pointed out (e.g., Markakis & Ayele (1986)), it is important to highlight the feudal-like land tenure system, which engendered conflicts between economic classes (e.g., landlords *versus* peasants) along ethnic fault lines in the post-Italian occupation period.[208] First and foremost, way before the 1974 Revolution, peasants were the ones who had shouldered the Ethiopian

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[207] The first mechanized/capitalist agricultural farming was introduced to the northern *Awash Valley* by foreign actors (e.g., Italians, Dutch & British) during the 1950s through economic concessions by the monarchy and in the form of sugar and cotton plantations. In the 1960s, however, agricultural schemes supported by the emperor and nobility spread to the southern *Rift Valley* in the form of large-scale mechanized farming, by which two new classes emerged as a result: (i) *petite bourgeoisie* entrepreneurs and (ii) landless peasants/farmers who became mere agricultural labor or land tenants over time. For more information on the development of mechanized/capitalist agricultural farming in Ethiopia, please see: Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (pp. 17–19).

[208] The root causes of the 1974 Revolution are one of the hotly debated topics among scholars studying Ethiopia. The main distinction between scholarly groups is rotated around whether economic (e.g., class structure, exploitation, *et cetera*) or political factors (e.g., ethnicity, identity, unresponsive regime, *et cetera*) led to the 1974 Revolution. While some (e.g., Markakis & Ayele (1986)) highlight the exploitative land tenure system and the class struggle between the northern landlords and southern land tenants as the primary causes of the 1974 Revolution, others (e.g., Clapham (1988), Ottaway & Ottaway (1978), Tareke (1991) & Young (1997)) point out the significance of political factors, namely ethnicity, culture, identity, and state formation over economic/class factors. In my view, although I do not exclude economic factors from the analysis of the 1974 Revolution and afterward, political factors deserve much more attention in the Ethiopian case for two reasons: (i) the same class structure had existed in Ethiopia since the reign of Menelik II and (ii) many past rebellions did not show the same class struggle along the North-South cleavage. In other words, the reason why the 1974 Revolution erupted in the reign of Haile Selassie I but not before and the location of rebellions before and after the 1974 revolution shed light on the saliency of political factors, mainly the unresponsiveness of the monarchy and the dominant Habesha identity/culture at the expense of other ethnic groups, over economic factors.

economic burden due to the necessity of feeding the expanding urban population in a few cities in spite of their outdated farming techniques and heavy taxes. Furthermore, those who shouldered a large part of this burden were southern peasants due to the different land tenure systems in the North and South. In fact, such a different land tenure system could be dated back to the reign of Menelik II, when northerners invaded the large swath of Oromo/Galla lands for control and exploitation through the right of taxation at their disposal. With the invasion of the southern lands, the northern landlords (e.g., nobility & church) gradually transformed the invaded lands into private property, in which southern peasants turned into mere sharecroppers or land tenants without any rights to their lands. During that time, for instance, approximately 46% of southern peasants became land tenants (*gabbars*) under the control of the northern absentee landlords. The exploitation of southern lands particularly increased with the introduction of mechanized/capitalist agricultural farming in the south, first by foreigners through concessions and later by the northern *petite bourgeoisie*/*nouveau riche*, supported by the emperor. As a clear indication of land exploitation, southern peasants were required to pay more than one-third of their crops as rent, though to varying degrees, regarding the services provided by northern landlords. Moreover, most peasants paid a *tithe* (10% of their earnings) to the Ethiopian Orthodox Church for their service. In the north, however, the land tenure system was basically communal, in which peasants were able to have the right to use a piece of land (*rist*) due to their ancestral lineage. In other words, the northern land was divided among members of the same descent group. Therefore, the land did not belong to individuals but to each member of the same descent group. The land was forbidden to sell to private parties because it was periodically distributed among members of the descent group. Although *rist* holders

(*ristegnas*) were required to pay feudal dues (*gult*) to private parties or the Church (*gultegnas*) in the form of crops, services, or gifts (*tributes*), most peasants in the north were not sharecroppers or land tenants, like southern peasants, since they had a piece of land to farm, although small. As a result of this different land tenure system, there was no clear class struggle between the ruling class (e.g., nobility & church) and peasants in the north due to *rist* rights and abundant lands. In the south, however, mostly Oromo/Galla peasants were alienated from the Amhara and Tigray-dominated monarchy, nobility, and Church because of the exploitative land tenure system and heavy taxes implemented by the northern/alien ruling class who lacked social support. Last but not least, given the collaboration of southern traditional elites (*balabbats*) with the northern ruling class, southern peasants were only able to raise their voices against northern domination along ethnic fault lines rather than class structure (Markakis & Ayele, 1986, pp. 21–27; Ottaway & Ottaway, 1978, pp. 15–19; Wubneh, 1993, pp. 165-169; see also Zewde (2016, Chapter 5)).

To consolidate his waning social support and generate income for the modernization program in the post-Italian occupation period, Emperor Haile Selassie I pursued a two-tier policy in the political and economic domains. While he aimed to consolidate his power through a number of policy reforms (e.g., the 1955 *Constitutional Amendments*), he implemented consecutive economic policy reforms (e.g., the 1942, 1944, 1966 & 1967 *Land Tax Reforms*) to increase state revenue. By implementing land tax reforms, the monarchy aimed to increase revenue, unify the taxation system, and have direct access to landholders without being interrupted by intermediaries (e.g., *gultegnas*). With such changes, peasants were expected to be free from extra fees and services demanded by landlords. Despite such efforts, the monarchy was unable to

increase state revenue as expected: agricultural income from land taxes constituted only 7% of the state revenue in the mid-1960s. Interestingly, the government spent only 2% of its revenue on agricultural development programs during the same period, despite the saliency of agriculture in the Ethiopian economy. Instead, Addis Ababa prioritized trade over agriculture in its budgetary plans. Failed land tax reforms and the government's reluctance for genuine land reform, along with a drought period in the early 1970s (the *Sahel drought*), aggravated the situation of landless peasants, mostly in the south. In later years, therefore, the *inteligência* (e.g., student movements) demanded radical land reforms from the monarchy under the banner of 'Land to the Tiller.' In the political domain, on the other hand, the emperor embarked on consolidating state power around his personality and modernizing his *ancien régime* by making amendments to the 1931 Constitution, reconstituting the Imperial Bodyguard and *Territorial Army*, and organizing the modern police force and local militias, known as *shefta*. All these political reforms aimed to consolidate the emperor's personal power against dissidents while giving the façade of modernity to his *ancien régime*. Furthermore, while Emperor Haile Selassie I focused on foreign relations for personal prestige in international diplomacy by playing a prominent role in the *Non-Alignment Movement* and Organization of African Unity (OAU), he left an increasing number of domestic issues to ministers whose education was the result of the emperor's early education reforms. With the growing power of bureaucracy, mostly in domestic politics, both the nobility and royal family started to play insignificant roles in politics, and the emperor became alienated from his subjects as he lost emotional attachment to Ethiopian society (Tareke, 1991, pp. 42–54; Turner, 1993, pp. 43–45; Wubneh & Abate, 1988, pp. 19–23; see also Zewde (2016, Chapter 5)).

All these economic and political reforms implemented in a relatively short period of time culminated in a failed coup attempt against Emperor Haile Selassie I in 1960. In fact, there were several uncovered plots and conspiracies against the emperor before the 1960 coup. These early coup attempts were mainly the result of the emperor's desertion of Ethiopia during the 1936-1941 Italian occupation. While the emperor was in exile, Ethiopian patriots, namely the former members of the Resistance Movement and the Black Lion Organization, led an armed struggle for independence.[209] Once the occupation was terminated by the Resistance in 1941 and British military support, however, the emperor, other exiles, and collaborators (*banda*), not the patriots, took the honors and privileges of military victory and independence. Nevertheless, the 1960 failed coup attempt deserves attention since it was a watershed in opposition against Emperor Haile Selassie I. Before the 1960 coup, the opposition was mostly elitist and conspirational. After the coup, however, the dissident voices took an open and bold stance against the emperor. Although the emperor rewarded loyal commanders/officials with salary increases as promised, appointed the loyal, educated young to administrative positions, and made several reforms after the failed coup (e.g., 1966 & 1967 Land Tax Reforms), the army increased its political influence by preserving the monarchy and

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[209] The masterminds behind the 1960 failed coup attempt were two brothers, Mengistu Newaye and Germame Neway, who were former members/fighters of the Black Lion Organization. Mengistu Newaye was the commander of the Imperial Bodyguard, whereas Germane Newaye was the governor of *Jijiga Province*. Their main grievance was the underdevelopment of Ethiopia despite its abundant resources. Therefore, their ultimate aim was to restore Ethiopia to its glorious past: the Kingdom of Aksum. The failure of the coup was mostly related to the lack of organization/coordination between coup plotters and the army. In other words, despite having the support of police forces, the coup was not supported by most of the armed forces. For more detailed information about the 1960 failed coup attempt, please see: Shinn & Ofcansky. (2013). 'Coup Attempt (1960)'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 106–107).; Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapter 5).

began to make frequent and increasing demands from the emperor. From that day, the army became one of the biggest threats and formidable forces against Emperor Haile Selassie I. Nevertheless, it is ironic that the emperor representing the progressive forces against the old feudal-like system in the early years of his reign became the guardian of the *ancien régime* over the years and thus paved the way for the 1974 Revolution (Clapham, 1988, pp. 32–33; Tareke, 1991, pp. 82–83; Turner, 1993, p. 45; Wubneh & Abate, 1988, pp. 33–34; see also Zewde (2016, Chapter 5)).

It is important to note that the opposition to imperial rule was not confined to coup attempts or plotters. Peripheral (e.g., peasants & separatist movements) and urban (e.g., university students) forces did also play a decisive role in the formation of revolutionary conditions. Throughout the country, for instance, many peasant rebellions erupted by those who were crushed under heavy economic obligations, such as land reforms and taxes. The most important ones among these peasant rebellions were the 1943 *Tigray*/*Woyane Rebellion*, the 1963-1970 *Bale Revolt*, and the 1968-1969 *Gojam Rebellion*. The common theme/grievance among these different peasant rebellions was the stiff opposition to land reforms and taxes, which were deemed by the traditional elites and peasants as a state policy to undermine their social and economic well-being.[210] The reaction of the monarchy in almost all these peasant rebellions was first the pacification of peasant demands, followed by military oppression once the appeasement strategy failed. It is important to note that such a strategy created a reputation problem in which Addis Ababa was considered weak and submissive by rebel forces and thus paved the way for frequent revolt in the periphery (see Walter

[210] For more detailed information on these three peasant revolutions, please see: Tareke. (1991). *Ethiopia: Power and Protest—Peasant Revolts in the Twentieth Century*. Cambridge University Press. (Part II).

(2006)).[211] The most formidable threat to the throne, however, came from a separatist ethnic insurgency in Eritrea.[212] The 1952 UN Resolution (federation formula) satisfied neither Ethiopia nor Eritrea, and thus, in 1958, mostly Muslim Eritreans established the *Eritrean Liberation Movement* (ELM) to pursue a political solution with the help of external actors. The Movement, however, was not successful in its endeavor. Therefore, the ELM turned into a military movement for independence through armed struggle in 1961: the *Eritrean Liberation Front* (ELF), also known as *Jebha*. In return, the emperor annexed the Eritrean autonomous region in 1962 and dissolved the 1952 Federation. Regarding the ELF's organizational structure, its leader was a former *shefta* (local militia), Idris Awate, who was supported mainly by Syria and Iraq for its pan-Arab ideology. Shortly after its formation, internal divisions came to the fore between Muslim and Christian participants. The main issue was the Muslim domination in the Front leadership. Therefore, in 1973, the splinter groups united under the *Eritrean People's*

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[211] Another two noteworthy rebellions, for instance, erupted in the southern Gedeo (1960) and northern Wollo (1970) regions. Similar to previous peasant rebellions (e.g., Tigray, Bale & Gojam), the root causes of these two peasant rebellions were also related to land alienation caused by mechanized/capitalist farming, peasant exploitation through land and tax reforms, and official neglect in the face of famines. For more detailed information, please see: Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapter 5).

[212] Another hot conflict zone was the Ogaden region, in which both Ethiopia and Somalia claimed sovereignty. After the British withdrawal from the region in 1948, Ogaden became part of Ethiopia despite the UN calls for self-determination. When Somalia became independent by merging with British Somaliland and Italian Somaliland in 1960, it began to pursue an irredentist policy with the claim of uniting Somali-populated areas under its sovereignty. The newly independent Somalia also denounced the recognition of the pre-1960 territorial agreements, including the Ethiopia-Somalia border agreement. The main controversial area was the *Haud* in Ogaden, where Somali herders had been seasonally grazing their livestock by crossing the Ethiopia-Somalia border. Despite the British mediation initiatives and free pass guarantee, Somalia insisted on its claims over Ogaden; thus, military clashes began on the Ethiopia-Somalia border six months after Somalia's independence. Hostilities temporarily ended with the OAU mediation efforts, but Somalia continued to support the Western Somali Liberation Front (WSLF) for the merger of Ogaden with Somalia. For more information on how the separatist Somali insurgency was formed in the Ogaden region, please see: Turner. (1993). Historical Setting. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 1–68). U.S. Government Printing Office. (pp. 49-50).

Liberation Forces (EPLF), also known as *Shabia*. During the last years of the *ancien régime* (1972-1974), these two rebel groups (ELF *versus* EPLF) fought against each other for supremacy in the Eritrean cause. Last but not least, during the mid-1960s, student riots began to break out in Addis Ababa, in which radical student organizations collaborated with the *Confederation of Ethiopian Labor Unions* (CELU), the *Ethiopian Teachers Association* (ETA), and even taxi drivers in organizing the demonstrations mainly against worsening economic situation.[213] Particularly in the post-Italian occupation period, the emperor embarked on modernizing the Ethiopian education system to train qualified bureaucrats/officers for the state apparatus with foreign aid, support, and collaboration. The emperor also opened several elementary and secondary schools as well as higher education institutions, mainly in northern city centers, and sent several hundreds of students abroad for graduate degrees, mainly to the United States. Seeing themselves as elites and saviors of the Ethiopian masses, these university graduates demanded free speech and union in the pre-1960 coup period. After the failed coup, however, they started to demand more radical reforms, such as distributing lands to the landless peasants, advocating the right of self-determination for ethnicities in the periphery, and ending foreign relations with the US. With their increasingly radical demands, Addis Ababa resorted to more repressive methods to control the student movements. In return, students formed clandestine student organizations (e.g., the *Crocodiles*) to organize and manage popular revolts, published leftist papers (e.g.,

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[213] For a review of all participants on the road to the 1974 Revolution, please see: Clapham. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge University Press. (pp. 32-38).; Wubneh & Abate. (1988). *Ethiopia: Transition and Development in the Horn of Africa*. Westview Press. (pp. 33-42).; Zewde. (2016). *A History of Modern Ethiopia 1855-1991* (E-Book, 2nd Edition). Ohio University Press. (Chapter 5).

Struggle) to spread their worldview to the Ethiopian masses, and worked in collaboration with Ethiopian student groups abroad (e.g., the *Ethiopian Students Union in North America and Europe*) for ideological/theoretical betterment. It is worth highlighting that these graduates did not have any sharp ideological vision other than advocating for radical change. Although they were inclined to Marxist ideology, they generally considered the leftist worldview an unquestionable creed rather than a system of thought (Clapham, 1988, pp. 33–38; Ottaway & Ottaway, 1978, pp. 21–27; Tareke, 1991, pp. 80–85; Turner, 1993, pp. 45–50; Wubneh & Abate, 1988, pp. 35–42; see also Zewde (2016, Chapter 5)).[214]

6.3 Mengistu Era (1974-1991)

Based on the background information above, one can argue that it was just a matter of time before the Revolution took place, as the revolutionary conditions in both the peripheral and urban areas were slowly forming since the end of the Italian occupation. The real problem, however, was related to the leadership roles. There was not any person or group that could lead the increasingly radicalized social grievances and demands. Therefore, until the Ethiopian Army assumed a leadership role, popular protests had no clear vision of what they would do after overthrowing Emperor Haile

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[214] Although Ottaway and Ottaway (1978, pp. 20–25) acknowledge the leadership role of university graduates in paving the road to the 1974 Revolution due to their education and class consciousness -as peasants in the periphery did not have the required leadership, organization, and resources to embark on a mass-based social movement (see McAdam et al. (2004), Tilly (1978) & Tilly & Tarrow (2015)), they claim that the importance of student movements was exaggerated by some (e.g., Zewde (2016)). According to Ottoway and Ottoway, the main grievance of university students was their higher expectations in administrative roles/posts after graduation, which had not been met by the monarchy. In other words, university graduates did not aim for real reform or an organized social movement. Therefore, they particularly emphasize the role of labor movements (e.g., CELU & ETA) in organizing mass-based social movements. A similar argument can be found in the pieces of Wubneh and Abate (1988, pp. 33–42) and Clapham (1988, pp. 32–38).

Selassie I (see Clapham (1988, pp. 38–40); Wubneh & Abate (1988, p. 47); Zewde (2016, Chapter 5)). This does not mean that the army acted as a unitary actor in the early post-revolutionary period. Instead, the army, more precisely, the Derg, dealt with power struggles among its leaders. In 1977, however, Mengistu Haile Mariam emerged as a victorious leader in the Derg. From 1977 to 1991, Ethiopia gradually became a socialist state in which political power was in the hands of Mengistu. In general, the Mengistu era can be divided into three phases: (i) formation and mobilization, (ii) consolidation, and (iii) the end of the revolution (see Clapham (1988)). It is important to note that the Mengistu era did not exhibit linear development in terms of revolutionary goals. This period (1977-1991) was full of tests for both Mengistu and the Revolution: the Ogaden War (1977-78) with Somalia, ongoing counterinsurgency operations against several rebel groups seeking independence throughout the country (e.g., EPLF, TPLF & WSLF), social and economic problems mainly emanating from radical socialist reforms, deteriorating foreign relations with the West, the withdrawal of Soviet financial and military support, and drought-induced famines. All these factors led to the fleeing of Mengistu to Zimbabwe in 1991, and thus, the end of the 1974 Revolution and the Ethiopian Civil War (1974-1991). Nevertheless, upon more careful investigation, the end of the Ethiopian Civil War appears to be more related to three factors: (i) the formation of a unitary rebel front between the EPLF and the TPLF against the Mengistu regime, and (ii) the economic and social problems exacerbated particularly after the withdrawal of Soviet support. Furthermore, it is worth highlighting that (iii) the 1984-1989 drought period played a significant role in undermining the already fragile Ethiopian agricultural economy and, thus, Ethiopian state capacity.

6.3.1 Formation & Mobilization Phases: Creeping Coup, Formation of Derg & Rise of Mengistu

The formation and mobilization phases of the 1974 Revolution cover the years between 1974 and 1978, in which the Ethiopian Army gradually controlled Addis Ababa and Mengistu Haile Mariam rose as a victorious leader in the Derg. Immediately after the eruption of the Revolution, it became clear that neither the throne nor the *inteligência* (e.g., university students) were prepared to control the ongoing situation. This created a political vacuum in which no single party was ready to take the leadership role. Although opponents no longer wanted to live in the *ancien régime*, they did not know how to handle and direct the mass movement in which several actors vied the overthrow of Emperor Haile Selassie I. In fact, opponents did not have a clear vision of post-imperial Ethiopia other than vague socialist ideals and reform demands. In this situation, the army became an indispensable actor due to its discipline, organization, and relatively well-educated staff. At first, the army was quiescent, but as the economic situation worsened due to the Sahel drought and famines during the last days of the emperor,[215] the soldiers of the *Fourth Division* were mutinied mainly for economic reasons in southern Negele Borana.[216] The *Negele Mutiny*, however, inflamed the unrest in the army, and thus, other forces/divisions (e.g., *Air Force* in Oromia and *Second Division* in Eritrea) also rioted. When other civilian actors (e.g., teachers, taxi drivers,

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[215] As it affected Chad, the Sahel drought in the first half of the 1970s devastated the already fragile Ethiopian agricultural economy. For instance, 200,000 people died, and more than 1.5 million livestock perished due to droughtinduced water insecurity and famines (Gupta, 1978, p. 161).

[216] Although the grievances of soldiers were much more related to economic factors, such as the shortages of water and food and the frequent delays in the payment of salaries (see Zewde (2016, Chapter 6)), they also had political grievances (cf. Gupta (1978, p. 162)). First, they were opposed to the use of brute force against rebel groups in the peripheral areas as most of them came from the same background. Second, they were against the emperor's decision to fight with the Americans against communists in the Korean War.

university students, marginalized Muslims, and workers) joined the protests *en masse*, the emperor tried to appease the protestors by fulfilling some of their demands. Prime Minister Aklilu Habte-Wold, for instance, was replaced by the more liberal incumbent Minister of Communication, Endelkachew Makonnen. Furthermore, an agenda for constitutional reforms and an examination of former officials' records was also unveiled. Despite such efforts, mass protests continued and spread to other provinces (Gupta, 1978, pp. 161–163; Turner, 1993, p. 52; see also Zewde (2016, Chapter 6)).

It is important to note that the army did not take on the leadership role wholeheartedly in a unified fashion. Instead, the army took on that role gradually, as the revolutionary conditions forced soldiers to do so. Furthermore, the entire process was full of personal struggles among commanders. During the early days of the revolution (*abyot*), the army was concerned with its deteriorating economic situation rather than mass movements. With the change of Prime Minister Aklilu to Endelkachew, the army supported the new cabinet in anticipation that the economic situation could be improved. After a short period, however, it became evident that Prime Minister Endelkachew was far from making genuine reforms. The main goal of the new cabinet was to secure the *ancien régime* by appeasing the demands of protestors, including civilians and soldiers. At this point, the army, particularly Majors Mengistu Haile Mariam and Atnafu Abate of the Fourth Division in Addis Ababa, played a determinative role in the course of the revolution by forming the *Provisional Military Administrative Council* (PMAC), also

known as the *Dergue* or *Derg*.[217, 218] Unlike the 1960 failed coup, the army was more careful when taking steps to control the revolutionary situation. For instance, they avoided framing their opposition or demands against the emperor. Furthermore, despite their private membership structure in the early days, the Derg became open to all ranks, not only from the Fourth Division but also from other military divisions. Although the

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[217] As a clandestine organization since its formation in 1974 by Majors Mengistu and Atnafu, the Derg maintained its closed organizational system to veil its internal power struggles among the top leadership. Rather than nationalism or localism, the Derg was formed to implement radical reforms and accomplish the ideals/goals of international socialism within a relatively short period. Although its first slogan was 'Ethiopia First' (*Ethiopia Tikdem*), it shortly transformed into revolutionary socialism, including the *red terror* campaign by the defense squads of urban associations (*kebeles*) against the old regime supporters and/or radical social forces/groups (e.g., *Ethiopian Democratic Union* (EDU) & *Ethiopian People's Revolutionary Party* (EPRP)). Particularly after the demise of its first chairman, General Aman, the Derg experienced a power struggle among General Benti, Major Mengistu, and Major Atnafu. By liquidating his rivals one by one, Major Mengistu became the victorious chairman of the Derg in 1977 and ruled Ethiopia with an iron fist until 1991. Notably, the Derg had no official structure or rules. It is a rather loose but clandestine organization formed by more than 100 military representatives from different divisions and forces. The membership profile was mostly diverse in terms of education and rank. Nevertheless, most members were either from a rural background who were educated at the less prestigious *Holetta Military School* or from an elite background who were educated at the prestigious *Harar Military Academy*. While most Harar graduates were either Amhara or Eritrean, Holetta graduates were mostly from the Oromo/Galla ethnic group. Majors Mengistu and Atnafu, in this regard, were exceptions, since both of them were from a rural background and educated at the Holetta Military School. Despite its initial pluralistic and representative management style, over time, the Derg became a one-man-ruled provisional government under the leadership of Mengistu Haile Mariam. Since its formation, the main issues among different groups/forces within the Derg had been related to (i) how the Eritrean question would be solved (military solution *versus* negotiated settlement), (ii) how to manage foreign relations with superpowers (US & USSR), (iii) how to overcome economic problems, and (iv) what to do with the old regime supporters. For more detailed information on the Derg and how it evolved over the early revolutionary years, please see: Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (Chapter 9).

[218] It is important to note that the 1952 *Free Officers* coup in Egypt led by Gamal Abd el-Nasser was a role model for young radical officers in the Horn of Africa. From their organizational structure to their ideology and aims, *Nasserism* was considered a guide for military juntas for 'garrison socialism,' in which soldiers reconstructed the state apparatus and society along socialist means and goals, such as nationalization, collectivization, and mass mobilization through parastatal organizations for equality and collective ownership. For more information on Nasserism, garrison socialism, and a comparison of radical military regimes in the Horn of Africa, please see: Cleveland & Bunton. (2009). *A History of the Modern Middle East* (Fourth Edition). Westview Press. (Chapter 15).; Markakis. (1979). Garrison Socialism: The Case of Ethiopia. *MERIP Reports, 79*, 3–17.; Markakis. (2013). Radical Military Regimes in the Horn of Africa. In J. Markakis & M. Waller (Eds.), *Military Marxist Regimes in Africa* (pp. 14–38). Routledge.

Derg gives the impression of a more conciliatory and open military organization, it was full of power struggles among conservative, moderate, and radical groups. The chairman of the Derg was General Aman Mikael Andom, who also represented the conservative group. General Aman was a respectable military officer who held several high positions under the rule of Emperor Haile Selassie I, such as being the defense minister. In order to control the army, the Derg needed such a respectable and well-known face. The moderates and radicals, however, were represented by General Tafari Bente and Mengistu Haile Mariam, respectively. The main controversial issues among these groups were how to solve the Eritrean question, the economic problems, the foreign relations with the West, and the fate of old regime supporters. These four issues would lead to a power struggle between General Aman, General Tafari, and Major Mengistu in later years. In 1977, however, Major Mengistu became the chairman of the Derg and ruled Ethiopia for 14 years with an iron fist (Gupta, 1978, pp. 163164; Turner, 1993, pp. 53–55; Wubneh & Abate, 1988, pp. 45–46; see also Zewde (2016, Chapter 6)).

Major Mengistu's rise to power was a bloody process in which he eliminated his rivals step by step within the Derg. As a not well-educated Oromo, Mengistu Haile Mariam was at a disadvantage in the Derg. Nevertheless, he proved that he was capable of eliminating his conservative and moderate rivals, and thus became the sole leader of radical young officers in the Derg. The first power struggle occurred between the conservative and radical groups. Given that General Aman was a mere figurehead of the Derg at that time, the conservative group's real leader was another young officer, Captain Sisay Hapte. Both supported the idea of finding a political solution to the Eritrean question through conciliatory policies and appeasement strategies. The radical

group led by Mengistu, however, was in favor of a military solution and demanded the unconditional surrender of Eritrean rebel groups. The controversial Eritrean question led to the demise of both General Aman and Captain Sisay in battles when soldiers were sent to arrest them by the radical group. After the death of General Aman, a moderate figure, General Tafari Bente, was appointed as the Derg's new chairman. He shortly started to reorganize the Derg to constrain the increasing power of the radical group. In order to curb the ascendancy of Mengistu as a vice-chairman, the moderate group proposed a new organizational structure for the Derg, in which both the positions of chairman and secretary were strengthened at the expense of the vice-chairman positions. Seeing it as a vital threat to his position and power, Mengistu orchestrated another bloody coup against General Tafari Bente and the moderate group in the Derg. By liquidating the two generals and the members of the conservative and moderate groups from the Derg for different reasons, the radical group, and thus Mengistu, became the sole leader of the PMAC in 1977 (Clapham, 1988, pp. 45–43, 51–52; Gupta, 1978, pp. 163–164; Ottaway & Ottaway, 1978, pp. 133–142; Turner, 1993, pp. 54–57; Wubneh & Abate, 1988, pp. 51–59; see also Zewde (2016, Chapter 6)).

6.3.2 Consolidation Phase: Reforms, Ideology & Vanguard Party

Power struggles were not the only problem for the Derg. Another equally important issue was the broadening of the Derg's limited social base. As mentioned above, in creating revolutionary conditions, many social groups, ranging from taxi drivers to peasants, demanded radical reforms. In such a social upheaval, only the army, though reluctant at first, was seen as a savior because of its organization, discipline, and well-educated staff. The main problem of the army, however, was that it was the same army that suppressed dissident voices against the *ancient régime* before the revolution.

This background, as well as being a latecomer in popular protests, required the military junta to broaden its narrow social base by responding to the Ethiopian masses' reform demands. For instance, the two most influential papers at that time, *Democracia* and *Voice of the Broad Masses*, demanded people's government, radical changes in the land tenure system, and severing relations with Western powers.[219] To this end, the Derg implemented several radical reforms under the slogan of *Ye-Itiopia Hibretesebawinet* (Ethiopian Socialism), which was transformed from the Derg's initial motto, *Ethiopia Tikdem* (Ethiopia First), in a relatively short period: implementation of land reform and the *zemecha* (an educational development campaign designed for students and teachers), nationalization of foreign assets, and creation of rural and urban associations.

The ultimate aim of these reforms was to mobilize the Ethiopian masses behind the army and thus broaden the Derg's narrow social base. Unsurprisingly, the social groups that benefitted from these reforms (e.g., southern peasants, the educated young, and the *petite bourgeoisie*) were the leading supporters of the military regime. The initial reforms aimed at transforming rural areas as they were seen as potential supporters of the military regime. First, students and teachers who demanded radical reform in Addis

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[219] The papers of Democracia and Voice of the Broad Masses were published by the EPRP and *MEISON* (All-Ethiopia Socialist Movement), respectively, in which the direction of the revolution and how it would be managed were discussed from different perspectives. In brief, while the EPRP/Democracia had a staunch opposition to the military regime and demanded a popular government and radical reforms, the MEISON and its clandestine newspaper, Voice of the Broad Masses, held a moderate position regarding the military regime and argued that a provisional military government and gradual reforms were necessary until the conditions/society were suitable/ready for popular government and radical reforms. The struggle between these groups led to the *Red Terror*, in which the Derg supported the MEISON faction to control radical groups and their increasing demands; thus, most of the EPRP members were liquidated by MEISON and kebele militia. Once the MEISON started to act independently as if it was the ideological leader of the 1974 Revolution, the Derg ended it as well. For more information on the Ethiopian Red Terror, please see: Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (pp. 145–148).

Ababa were sent to rural areas to educate peasants about rural development. With the *zemecha* and *Development through Cooperation* campaigns, the rural population was indoctrinated with Marxist ideology. In 1975, the Derg embarked on implementing two further radical reforms: the nationalization of foreign assets and land proclamation. In order to prove its revolutionary credentials, the Derg first nationalized financial, commercial, and industrial institutions and enterprises, most of which were private foreign assets. By transforming them from private hands to state control, the Derg /state bureaucracy became the sole arbiter of economic activity in Ethiopia. To complement the ongoing nationalization program, the Derg also issued a land reform proclamation in which the military junta abolished all forms of private land ownership and prohibited the sale, litigation, and tenancy of rural land. Through this proclamation, southern landless *gabbars* (land tenants) were able to have usufructuary rights over up to ten hectares of land, and feudal-like landlordism ended throughout the country. Furthermore, the Derg confiscated extra houses in rural and urban areas in order to curb the nobility's economic base. Last but not least, the military junta formed peasant associations and *kebeles* (urban dwellers' associations) throughout the country in order to control the Ethiopian masses. These rural and urban associations both implemented and supervised the reforms announced by the Derg (Clapham, 1988, pp. 45–51; Gupta, 1978, pp. 166–168; Turner, 1993, pp. 57–58; see also Zewde (2016, Chapter 6)).[220]

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[220] For more detailed information on the mobilization phase in which the Derg embarked on implementing several radical reforms, namely the nationalization campaign, the land reform proclamation implemented by the *zemecha*, and the creation of rural and urban associations, please see: Clapham. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge University Press. (Chapter 3).; Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (Chapter 5).

In 1977, Mengistu not only eliminated his rivals within the Derg, but he was also successful in mobilizing the masses towards one-man rule through the reforms mentioned above. Although he was able to control political and economic powers, his bid for absolute control centered on his personality lacked a significant component: a clear ideology. Therefore, after eliminating his rivals, Mengistu focused on this issue and tried to seize supremacy by clashing different ideological groups with each other (Amhara/Tigray-dominated EPRP *versus* Oromo-dominated MEISON).[221] The main target of Mengistu was the EPRP, a student-based organization advocating popular government and radical socialist reforms.[222] The MEISON, on the other hand, was much more moderate in the way that it supported the Derg and not-so-radical reforms as a required stage in a peasant-based society lacking class consciousness.[223] In fact, the

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[221] In addition to their ethnic differences, most EPRP and MEISON members were either educated in the US or Europe. While most EPRP cadres were educated locally or in the US, most MEISON cadres were educated in Europe. Different approaches to Marxist *praxis*, not ideology itself, between the EPRP and MEISON were related to the *Ethiopian Student Movement* (1960-1974). The movement essentially consisted of the *Ethiopian Students Union in North America* (ESUNA) and the *Ethiopian Student Union in Europe* (ESUE), which later influenced the ideological struggle between the EPRP and MEISON. For more information, please see: Clapham. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge University Press. (pp. 52-54).

[222] It is important to note that the EPRP also extended its white terror campaign to the northern areas where the EPLF and the TPLF were operating. Both the EPRP and MEISON recognized the principle of self-determination for all nationalities/ethnic groups in Ethiopia, but the EPRP was more radical in terms of acknowledging the right to secede. Nevertheless, the EPRP argued that class consciousness/struggle is superior to national consciousness/struggle. Its emphasis on class consciousness/struggle at the expense of national consciousness/struggle made the EPRP and TPLF fight against each other. Once the EPRP was defeated by the better-organized TPLF forces, it moved to the Sudan border to continue its activities (see Wubneh & Abate (1988, pp. 55-56)).

[223] In fact, to undermine the EPRP's social base/support, the PMAC/Derg established the *Provisional Office for Mass Organizational Affairs* (POMOA), in which the MEISON, as a rival party, was formed by the Derg's civilian wing. The MEISON was organized in 1976 by Haile Fida, who was one of the most influential advisers to Mengistu at that time. The *Fidaists* were responsible for establishing and administering the famous *Yekatit '66 Ideological School*, where the Derg members were indoctrinated with Marxist ideology (see Wubneh & Abate (1988, pp. 54, 56)). For more detailed information on the POMOA and its relationship with the Fidaists/MEISON, please see: Shinn & Ofcansky. (2013). 'Provisional Office for Mass Organizational Affairs (POMOA)'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 342–343).

MEISON's aim was to become an ideological leader of the 1974 Revolution by eliminating its rivals, mainly the EPRP, and infiltrating the Derg and other evolutionary organizations, such as kebeles and peasant associations. To control the revolution from an ideological standpoint, Mengistu utilized the struggle between these groups and supported the MEISON against the EPRP. Furthermore, he implemented the *Red Terror Campaign* against ideologically opposed groups, mainly the EPRP and EDU, in which defense squads of the kebeles launched search operations in cities to liquidate members of radical groups (e.g., EPRP) and old regime supporters (e.g., EDU). The official justification for implementing the Red Terror was the death of the Derg's top leaders by the ERPR, known as the *White Terror*. Once the anarchy in Addis Ababa was over, both Mengistu and the MEISON emerged as ideological leaders of the revolution. Nevertheless, after being clear that the MEISON had a separate agenda and acted independently by infiltrating and controlling the kebeles, Mengistu ordered the closing of the MEISON in 1978 and created an umbrella organization for all socialist movements instead: the *EMALEDEH* (Union of Ethiopian Marxist-Leninist Organizations).[224] With these moves, the Derg and Mengistu achieved ideological consolidation to a large extent (Clapham, 1988, pp. 52–57; Ottaway & Ottaway, 1978, pp. 145–148; Turner, 1993, pp. 58–59; Wubneh & Abate, 1988, pp. 54–57; see also Zewde (2016, Chapter 6)).

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[224] It is worth noting that before the establishment of the EMALEDEH in 1978, Mengistu had formed the *Revolutionary Flame* (Abiotawi Seded) in 1976. It was a political party that was specifically designed to dominate the POMOA. Although the Revolutionary Flame was not a mass party, it facilitated Mengistu's attempts to control important posts/positions within the PMAC/Derg through its cadres. For more detailed information, please see: Shinn & Ofcansky. (2013). 'Mengistu Haile Mariam (1937-)'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 286–288).

Once Mengistu established his control over the Derg and ideological groups, there was one remaining goal: the consolidation of his personal power by declaring a new regime. To achieve this goal, he had to solve two issues: (i) the formation of a new official vanguard party despite the lack of political party tradition and (ii) the promulgation of a new constitution. In 1979, Mengistu established the *Commission for Organizing the Workers' Party of Ethiopia* (COPWE), which later turned into the *Workers' Party of Ethiopia* (WPE) in 1984. In fact, Mengistu was first reluctant to form a new official vanguard party. He was instead inclined to maintain his regime around his personality through loyal cadres. The Soviet Union pressured Mengistu to form a *Leninist* party to lead the Ethiopian masses, as such a party would be more effective in linking Ethiopia to the Soviet bloc rather than a military junta. Mengistu, however, formed and chaired the COPWE. When the WPE was established on the 10th anniversary of the 1974 Revolution, the party structure was designed in line with the Soviet party model, and thus, absolute power was given to Chairman Mengistu. While the top party cadres were mainly military personnel, the lower cadres were essentially civil servants. More importantly, party cadres did not show any clear ethnic exclusion since there were many people from various ethnic identities. Party cadres were meticulously selected and appointed by Mengistu himself, in which loyalty was the most important criterion. For a new constitution, on the other hand, he established the *Institute for the Study of Nationalities* in 1983, in which 347 experts headed by Mengistu formulated a draft constitution. In fact, the constitution, which was ratified by a referendum in 1987, was the outcome of a small circle of Mengistu and his confidants. Changes in the state structure, namely, transferring power from military personnel to civilians, were superficial, without any meaningful substance. Furthermore, while

writing the draft constitution, the *Constitutional Commission* appeared to consider the opinions and suggestions of ordinary people across the country through consultation meetings in peasant associations and *kebeles*. In the 1987 election, most WPE cadres were selected as candidates for *National Shengo* (parliament) by at least paying attention to the appearance of representation. Almost ten years after being the undisputed leader of the Derg, Mengistu was able to declare a new regime around his personality, the *People's Democratic Republic of Ethiopia* (PDRE), and became the first president of the PDRE in 1987 (Turner, 1993, pp. 62–63, 65; Wubneh & Abate, 1988, pp. 59–68; see also Clapham (1988, Chapter 4); Zewde (2016, Chapter 6)).[225]

6.3.3 Countrywide Conflicts: War & Insurgencies

While Mengistu was consolidating his power grip inside the Derg, Ethiopia was on the verge of an increasing Somalian threat in which Mohamed Siad Barre, who became the head of state after the 1969 military coup, was aiming to unite all Somalians under *Greater Somalia*.[226] The military coup and the subsequent invasion of an Ethiopian region, Ogaden, by the Somalian army for pan-Somalism not only undermined regional security but also changed the Cold War balance in the Horn of Africa.[227] Both Ethiopia and Somalia relied heavily on superpower support for their

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[225] Among the sources reviewed, Clapham's book (1988) was the most detailed in explaining the consolidation phase. For more detailed information on the POMOA, COPWE, WPE, new constitution, and PDRE, please see: Clapham. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge University Press. (Chapter 4).

[226] For a comparison between Pan-Ethiopianism versus Pan-Somalism in the Horn of Africa, please see: Záhořík. (2022). Competing -Isms in the Horn of Africa: The Rise and Fall of Pan-Ethiopianism and Pan-Somalism. *Nationalism and Ethnic Politics*, *28*(1), 74–91.

[227] Although the aim of Siad Barre in launching the Ogaden invasion was to unite all Somalian people under his regime, the triggering factor was the power vacuum in Ethiopia due to the 1974 Revolution. As the Derg mobilized the Ethiopian army to Eritrea in order to fight the EPLF and lacked US military support, Barre considered the situation in Ogaden suitable for invasion, which was later proved to be totally wrong (see Wubneh & Abate (1988, p. 69)).

economic and military capabilities. The *Ogaden War* (1977-1978), however, changed the existing support structure, in which the US supported Ethiopia in the economic and military domains, whereas the Soviet Union supported Somalia for regional hegemony and control over international sea trade routes. With the unhindered Somalian military maneuvered for invasion, however, the USSR started to support revolutionary Ethiopia, as Soviet leaders deemed Ethiopia more genuine in revolutionary goals and more important for regional control. More importantly, US-Ethiopia relations had been deteriorating since the 1974 Revolution because the Derg/Mengistu aimed to establish a socialist state having good relations with the *Eastern Bloc*. For instance, in 1977, Cuban leader Fidel Castro visited Ethiopia and shared the idea of a regional federation with the Derg leaders.[228] During almost the same period, Mengistu contacted the Soviet Union several times and, in the end, signed an agreement for cooperation in the economic, military, and cultural domains. Furthermore, the 1953 *Military and Financial Assistance Agreement* with the US was also terminated; thus, the Kagnew Station, one of the most important US military telecommunication bases in the region at that time, was closed. As a result, though reluctantly, the US had to support Somalia in order to maintain the regional balance of power. Although the Somalian army made a quick military advance with the start of the operation in 1977, the Ethiopian army was able to reorganize and stop the invasion shortly with the help of the Soviet Union, Cuba, and

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[228] On his visit to Ethiopia, Cuban President Fidel Castro proposed the Mengistu regime to form a regional federation with Somalia and the South Yemen/Yemen Democratic Republic, in which Ogaden, Eritrea, and Djibouti would become autonomous regions. With the failure of the proposal, Cuba started to support revolutionary Ethiopia and severed its relations with Somalia, which started to rely on US economic and military support (see Ofcansky (1993, pp. 296-297).

East Germany.[229] Despite the fact that the Ogaden region continued to be a problematic area for the Derg due to the activities of the Somalia-supported *Western Somalia Liberation Front*, they were no longer an existential threat to the Mengistu regime. Having a military victory in the Ogaden War, Mengistu was not only able to strengthen his personal power within the Derg as a victorious political and military leader, but also largely secured his personalistic rule/regime against external (e.g., Somalia/Siad Barre) and internal (e.g., UDE/Old-regime supporters) threats (Clapham, 1988, pp. 60–62; Turner, 1993, pp. 59–60; Wubneh & Abate, 1988, p. 69; see also Zewde (2016, Chapter 6)).[230]

In addition to power struggles within the Derg and Somali invasion, Mengistu also dealt with the feudal reactions of the old establishment as a result of a power vacuum in Addis Ababa created by the 1974 Revolution. Most old-regime supporters thought that the Derg could not maintain its political position for a long time; thus, political power would return to the old elite sooner. In fact, the same thoughts were shared even by the top leaders of the Derg. One of the reasons for the rapid, radical reforms initiated by the Derg in the initial phase of the Revolution was related to the fear of feudal reactions led by the old elite. Such fear mainly emanated from the lack of broad social support for the Derg. Despite these disadvantages, the lack of unification among peripheral rebellions was the only advantage of the Derg. Most rebellions did

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[229] For more detailed information on how foreign military assistance had shaped the Ethiopian army under the Mengistu regime, please see: Ofcansky. (1993). National Security. In T. P. Ofcansky & L. Berry (Eds.), *Ethiopia: A Country Study* (4th Edition, pp. 267–330). U.S. Government Printing Office. (pp. 291-299).

[230] Since the Ogaden War (1977-1978) is out of scope in this dissertation as an interstate war between Ethiopia and Somalia, one can refer to the following source for more detailed information: Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (pp. 162–164, 166–171).

not show any national characteristics. They were rather local reactions, including banditry (*shefta*), to the Derg's radical reforms, mainly the land reform proclamation. These local rebellions were generally carried out by peasants but were directed by the old elite/nobility (e.g., EDU). Although most local rebellions broke out in the North (e.g., Tigray, Bale, Gojam & Afar) due to the change in the land tenure system, the Oromo/Galla people in the South were the ethnic group who benefited the most from these radical changes. It is important to note that although the Derg's top echelons were allegedly Oromo-originated (e.g., Mengistu), these local rebellions began to take a nationalistic character against the Derg regime over time. For instance, in Tigray and Eritrea, rebellions were mostly related to nationalistic feelings rather than a class struggle between the old elite/nobility and landless peasants. The rebel groups in Tigray and Eritrea (e.g., TPLF & EPLF) reacted to the top-down modernization efforts initiated by the ousted emperor, whose aim was to increase the centralization of state power around the Habesha identity/culture. The same modernization efforts, however, were continued by the Derg, albeit in a socialist form, which generated more nationalistic reactions from the periphery. In brief, although peripheral rebellions were initially feudal reactions to changes in the land tenure system by the old elite and peasants, they became more nationalistic over time as rebel groups were organized by radical social groups (e.g., university students) (see Ottaway & Ottaway (1978, Chapter 6); Tareke (1991)).[231]

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[231] For more detailed information on these early peasant rebellions led by the old elite/nobility in northern Ethiopia, please see: Tareke. (1991). *Ethiopia: Power and Protest—Peasant Revolts in the Twentieth Century*. Cambridge University Press. (Part II).

The feudal/peasant reaction in Tigray broke out immediately after the 1974 Revolution when the governor of Tigray, *Ras* Mengesha Seyoum, refused to obey Addis Ababa's orders. It is important to note that the adverse impacts of the land reform proclamation were minimal in Tigray since this region had very little arable land. The economic development/salience of the Tigray region essentially relies on its location on the trade route between Addis Ababa and the Red Sea ports in Eritrea (e.g., *Massawa* & *Assab*). Therefore, the feudal/peasant reaction was rather related to the ethnic animosities between the Tigray people and the Amhara and Oromo/Galla ethnic groups (see Young (1997, Chapter 2)). During the Kingdom of Aksum, for instance, the Tigray people were the dominant ethnic group against all others. With the demise of Yohannes IV, however, the Tigray people started to lose their dominance in Ethiopian society, as the Amhara people gained increasing power with the rise of Menelik II. The change in power from the Zagwe Dynasty (Tigray) to the Solomonic Dynasty (Amhara), however, ended with the collapse of the Ethiopian Empire in 1974. The southern Oromo/Galla people, on the other hand, became the new dominant ethnic group in Ethiopia, with the concentration of state power in the hands of the allegedly Oromo/Galla-dominated Derg. The reactions in Tigray and Eritrea were, thus, mainly related to these power changes rather than class struggles between the old elite/nobility and peasants (cf. Markakis & Ayele (1986)).[232] By not obeying the central government's rules, Ras Mengesha started a rebellion in Tigray, which later became an organized rebellion under the *Tigrean Liberation Front* (TLF). With the establishment of the TLF, the Tigray rebellion took a much more nationalistic character in a way that demanded a liberal

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[232] For more detailed information regarding the root causes of the Tigray rebellion, please see: Young. (1997). *Peasant Revolution in Ethiopia: The Tigray People's Front, 1975-1991*. Cambridge University Press. (Chapter 2).

democratic state free from the domination of the Amhara or Oromo/Galla ethnic groups. To realize its goal, the TLF merged with the party of the old-regime supporters, the EDU.[233] This merger, however, generated a power struggle within the leadership; thus, more Marxists-inclined wing/students formed a splinter group, called the *Tigrean People's Liberation Front* (TPLF) in 1975, with the influence of the *Eritrean People's Liberation Front* (EPLF) (see Young (1997, Chapter 3)).[234] In fact, the survival of the TPLF in the initial phase was largely dependent on the military support from the EPLF. By the EPLF cadres, the TPLF was seen as a buffer organization/area between the EPLF and the Derg, in which the TPLF was able to interrupt military transports from Addis Ababa to Asmara, where the Second Division of the Ethiopian Army was located (Ottaway & Ottaway, 1978, pp. 85–90; Young, 1997, Chapters 2-3).

In fact, the TPLF was originally a student/teacher-led movement in towns (e.g., Adwa), demanding the end of Habesha domination in educational and occupational opportunities, the end of cultural discrimination against non-Amhara non-Christian ethnic groups, and the end of restrictions on religious and linguistic freedoms. As the

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[233] Established in London in 1975 by a former chief of staff and ambassador, Iyasu Mengesha. Another important figure of the EDU was Ras Mengesha Seyoum, the founder of the Tigrean Liberation Front. Its aim was the establishment of a constitutional monarchy by the old-regime supporters. After realizing that the old regime was not recoverable, the EDU aimed to unite all opposition forces against the Derg regime. Despite the efforts of the old Amhara aristocracy, the EDU was considered a marginal group in Ethiopian politics and operated mainly from the Sudanese border. With the collapse of the Derg in 1991, the EDU became a part of the EPRDF in establishing the post-Derg regime in Ethiopia. For more information about the EDU, please see: Shinn & Ofcansky. (2013). 'Ethiopian Democratic Union (EDU)'. *Historical Dictionary of Ethiopia* (2nd Edition). The Scarecrow Press. (pp. 151–152).; Ottaway & Ottaway. (1978). *Ethiopia: Empire in Revolution* (1st Edition). Africana Publishing Company. (pp. 88-90).

[234] Unlike Markakis & Ayele (1986), Young (1997, Chapter 3) argues that the Tigray rebellion was not related to the class struggle between the old elite/nobility and peasants in rural areas. Rather, the rebellion was a violent mass movement led by *petite bourgeoise* (e.g., university students & civil servants) in towns. In later years, the movement took a rural character through the efforts of university students in villages. Nevertheless, it is important to note that such an argument does not discard the importance of rural/agrarian crises in peripheral areas through the implementation of large-scale mechanized farming.

backbone of the TPLF, members of the student movement participated *en masse* in the TPLF's cause against the Derg's increasingly authoritarian regime during the red terror period. It is worth noting that most of them were former EPRP members, who escaped the Derg's red terror campaign. Despite such member transitions between the EPRP and TPLF, the TPLF was superior in terms of military capacity, as its members were trained by former *shefta* and old-regime military cadres. Most of its members (~3,000), for instance, received their military training in Eritrea from the EPFL. Furthermore, the TPFL had good social relationships with and support from Tigray residents, generated by providing basic social services (e.g., establishing educational institutions, distributing land to peasants & creating local administrative units) and respecting the local culture (e.g., traditional gender roles & religious institutions) (see (Young, 1997, Chapter 7)). Although these students initially focused on their parochial problems (e.g., few occupational opportunities for non-Amahara), they, mostly Tigreans, became more conscious and nationalist over time as they began to deal with the issue of Ethiopian ethnic groups' self-determination. When students realized that it was impossible to come to a compromise with the Derg due to its draconian governing style, they began considering armed struggle as their only legitimate way for national liberation. Considering that the Derg dealt with internal power struggles, the Somali invasion, the EPRP's white terror in urban centers, and the ongoing Eritrean war in Asmara, the Tigrean students considered the conditions ripe for officially establishing the TPLF in Dedebit in 1975. By eliminating its two strongest military rivals (e.g., EDU & EPRP)

during the late 1970s, the TPLF became the sole rebel group in Tigray, thus a dominant rebel force against the Derg (see Young (1997, Chapters 3, 7; 1998).[235]

In addition to the TPLF in Tigray, the Derg had to deal with a much more powerful rebel group in Eritrea that would spell its end: the *EPLF*. Similar to the TPLF, the EPLF was originally a splinter group. The *Eritrean Liberation Front* (ELF) was the first rebel group in Eritrea to organize an armed struggle for national self-determination. The first ELF attack was conducted in 1961 by a small group of fighters led by Hamid Idris Awate.[236] Although the ELF imitated the *Algerian Front de Libération Nationale* (National Liberation Front, FLN) and thus organized into zones, it had two major problems that would lead to its disintegration in later years: (i) the dominant Muslim leadership and member profiles, and (ii) its reliance on foreign support, mainly from the Arab world (e.g., Syria & Iraq) through the network of Osman Saleh Sabbe.[237] These

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[235] For more detailed information on the formation and evolution of the TPLF, please see: Young. (1997). *Peasant Revolution in Ethiopia: The Tigray People's Front, 1975-1991*. Cambridge University Press. For a shorter version of the TPLF's evolution from its establishment in 1975 to the military victory against the Derg in 1991, one can see: Young. (1998). The Tigray People's Liberation Front. In C. Clapham (Ed.), *African Guerillas* (pp. 36–52). Indiana Universty Press.

[236] In fact, the root causes of Muslim rebellion in Eritrea can be traced to the late 1950s/early 1960s, when Eritrea, as a former Italian colony, was federated with Ethiopia in 1952 and annexed by the Ethiopian army in 1962 on the claim that Eritrea was a province of Ethiopian Empire. At that time, while Muslim lowlanders under the banner of the *Muslim League* refused such *fait accompli*, Christian highlanders under the *Unionist Party* supported the unification project. Therefore, Muslim groups became the figurehead of Eritrean nationalism and independence, whereas Christians were seen as the responsible groups for the loss of Eritrean independence (Pool, 1998, p. 22; for more details, please see Zewde (2016, Chapter 5)).

[237] Osman Saleh Sabbe was a schoolteacher known for his recruitment into the ELF, such as the leader of the PLF, Romodan Muhammed Nour. After the unification of dissident groups, Sabbe became the head of the foreign mission, whose aim was to ensure the flow of financial and military support from Arab countries. To facilitate the flow of arms equipment, the clandestine *Massawa Network*, including boat owners, police officers, and customs officials, worked closely with Sabbe and the EPLF. Nevertheless, emphasizing the links with Arab countries for external support became a problem for Christian highlanders, particularly the Ala Group led by Isais Afwerki. The Ala Group/Isais Afwerki, in general, was against any policy supporting the Muslim dominance in the EPLF/Eritrea (see Pool (1998, pp. 72-73).

two problems would lead to the establishment of the EPLF (*Shabia*) in 1972 (formally in 1977), when the organization embraced non-Muslim groups and emphasized self-reliance. During the 1960s, for instance, Addis Ababa was able to recruit Christian groups to fight against the Muslim-dominant ELF. Moreover, Muslim and Christian fighters in the ELF even ate their rations separately. The lack of unity between Muslims and Christians within the ELF resulted in the formation of two separate splinter groups, namely (i) the *Popular Liberation Forces* (PLF) led by Romodan Mohammed Nur and (ii) the *Ala Group* led by Isais Afwerki.[238] These two splinter groups later formed a united front against Addis Ababa and the ELF in 1972: the *EPLF*. It is important to note that the unification was not an easy process. It took two years (1970-1972) and required overcoming an internal struggle known as the *manqa* or *Destructive Moment* and an armed struggle with the ELF. After the formation of splinter groups, the ELF embarked on armed intervention to maintain the unity of rebel forces in Eritrea. However, this move did not prevent the formation and rise of the EPLF in the 1970s. Furthermore, after unification, some dissidents in the Ala Group began criticizing the authoritarian leadership of Isais Afwerki and demanded democratic leadership. These early external and internal power struggles paved the way for the EPLF to understand the salience and necessity of a centralized organization and solidarity between constituent groups (Pool, 1998, pp. 22-26; see also Pool (2001, Chapter 3)). To materialize the solidarity and

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[238] In fact, three splinter groups of the ELF, namely (i) the PLF led by Romodan Mohammed Nur, (ii) the Ala Group led by Isais Afwerki, and (iii) the *Obel Group* led by Adam Salih, were the founding members of the EPLF. However, shortly after the unification, the Obel Group withdrew from the united front due to the debate on democratic leadership and concern over relationships with the Arab world. Compared to the PLF/Mohammed Nur and the Ala Group/Isais Afwerki, the impact of the Obel Group/Adam Salih on the EPLF was minimal. For more detailed information on the founding groups/leaders of the EPLF, please see: Pool. (2001). *From Guerillas to Government: The Eritrean People's Liberation Front*. Ohio University Press. (pp. 64–70).

centralization of the EPLF, for instance, the EPLF embarked on an intense political education and training program in the countryside. Similarly, some fighters were trained in China, Syria, and Cuba through an intense Marxist education program. Furthermore, to maintain social support and thus recruitment activities in the countryside, the EPLF acted like a *quasi*-state in villages and towns by providing social services to the poor (e.g., medical and veterinary services, land distribution, literacy classes, women's empowerment) and establishing local institutions (e.g., village committees, people's assemblies, the *Eritrean Relief Association* (ERA)). It is worth noting that while conducting all these policies, the EPLF was cautious enough not to alienate potential recruits by showing due respect to local culture and religious practices (e.g., traditional gender roles, Islamic family jurisprudence) (Pool, 1998, pp. 29–32; see also Pool (2001, Chapters 3-4)).[239]

6.3.4 End of Revolution: United Front, Drought & Change in External Support

In the 1980s, both the TPLF and the EPLF became the sole rebel groups in their spheres of influence and control in Tigray and Eritrea, respectively. Moreover, other rebel or dissident groups (e.g., ELP, TLP, ERPR, EDU) became either suppressed or non-important due to their diminished military capacity and lack of social support. Although all these factors contributed to the rise of the TPLF and the EPLF as powerful rebel groups having broad-based social support against the Mengistu regime, the main

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[239] Although there is scattered but limited information about the EPLF in academic sources I have reviewed, the most comprehensive and detailed information can be found in Pool. (2001). *From Guerillas to Government: The Eritrean People's Liberation Front*. Ohio University Press. (Chapters 3-4). In general, while Chapter 3 provides the details of its formation phase, including the civil war with the ELF and the *manqa* internal crisis, as well as its ideological, organizational, disciplinary, and leadership structures along with recruitment activities, Chapter 4 details how the EPLF implemented its policies in rural and urban settings having varying degrees of Muslim and Christian populations.

factor that contributed to the demise of the Derg/Mengistu was the unification between the TPLF and the EPLF as a united front against Addis Ababa (see FBIS Record (1989f)). For instance, because of this unification strategy, the Derg could not eliminate these two rebel groups with *Operation Red Star* (1982), the largest military campaign in the North, despite the lack of drought-induced economic hardships and mass migrations in the early 1980s (see De Waal (1991, p. 150)). Besides having the common goal of overthrowing Mengistu, these two rebel groups had strategic goals from this unification. By the EPLF, the TPLF was considered a buffer zone between Eritrea and Addis Ababa, where the TPLF was able to cut transportation roads. With a powerful rebel group in Tigray, the EPLF could gain its independence without suffering too much. Similarly, the TPLF considered the EPLF's help necessary, particularly in its foundational years. Compared to the TPLF, the EPLF was superior in military terms. As an indication of this, while the EPLF generally followed conventional warfare against Addis Ababa, the TPLF followed guerrilla warfare due to its weak military capacity. Thus, military help from Eritrea was seen as a necessity in Tigray's struggle (Young, 1996, pp. 106–112). In addition to their different military strategies, the most important difference between these two rebel groups was the issue of self-determination, which caused a brief separation between 1985-1988.[240] While the TPLF demanded the right of self-determination for each ethnic group in Ethiopia, including the Eritrean ethnic groups, the EPLF argued that the right of self-determination, including independence, should have applied only to Eritrea as a whole due to its

[240] The reason the EPLF was adamant about denying the right of self-determination to other ethnic groups was related to Eritrea's multinational ethnic structure (e.g., Muslims & Christians). By acknowledging the TPLF's proposal, namely the right of self-determination to each ethnic group, the EPLF would tacitly acknowledge the division of Eritrea in the future (see Young (1996, pp. 112–114)).

colonization by Italy. By stepping back from its initial insistence on the self-determination of each ethnic group and showing that it was a mighty rebel group by gaining military victories over the ERPR and the Derg, the TPLF was able to overcome the separation issue with the EPLF. As a result, with this military unification, the TPLF became a party on the victorious side under the banner of the EPRDF, along with the EPLF in 1991 (Young, 1996, pp. 112–118).

Another significant factor in the fall of the Derg regime was economic crisis. In fact, two important factors were at the forefront in the formation of the economic crisis during the 1980s: (i) the Derg's economic policies/maladministration and (ii) the 1984-1989 drought. After the 1974 Revolution, the Derg implemented several radical reforms in order to transform the feudal-like society into a socialist form by distributing lands to landless peasants, which was administered by peasant associations, opening collective and state farms in order to increase the yield and accustom peasants to communal lifestyles, and establishing the *Agricultural Marketing Corporation* (AMC) to control and regulate the agricultural market. Nevertheless, all these attempts, particularly collective and state farms, became ineffective due to the lack of required personnel and supplies, demoralization of peasants, and low agricultural prices. Although all of these reforms and institutions generated hope for a better future among Ethiopians in the early years of the revolution, they instead brought misery, particularly to the rural population (see Giorgis (1989, Chapter 9)). In addition to all these ideology-based failed reforms and institutions, the 1984-1989 drought exacerbated deteriorating economic life. In fact, the 1984-1989 drought period was not a new phenomenon in Ethiopia. Menelik II in the 19th century and Emperor Haile Selassie I just before the 1974 Revolution had to deal with severe drought periods. However, compared to these two historical droughts, the

one that occurred in the 1980s was much more severe in terms of human loss and economic impact (see De Waal (1991, 1997, pp. 106–122); Giorgis (1989, Chapter 8)). Just between 1985-1986 immediately after the most severe drought period (1984-1985) had passed by, for instance, 5.8 million people were estimated to be dependent on relief aid and almost 600,000 people moved to the South for better living conditions (Turner, 1993, pp. 63-64). Moreover, the 1984-1989 drought is estimated to have claimed the lives of 1 million people and threatened almost 8 million people with death by starvation; therefore, almost 2.5 million people abandoned their homes in the region (Abate, 1993, p. 83, 88).

As counter-measures, the Mengistu regime implemented two programs designed to alleviate the economic burden of the drought on people and make failing socialist institutions (e.g., collective and state farms) more effective: (i) *resettlement* and (ii) *villagization* (Abate, 1993, pp. 83–87; see also FBIS Record (1985d)).[241] While some (e.g., Giorgis (1989, Chapter 10)) argue that these two policies were designed to deal with the 1984-1989 drought by transferring people from drought-hit northern areas (e.g., Tigray) to fertile southern lands (e.g., Rift Valley) where several collective and state farms were established and administered by the Derg, others (e.g., De Waal (1991, 1997, Chapter 6)) claim that these policies were particularly designed as counter-insurgency strategies (e.g., scorched-earth tactics) in order to undermine the social base of both the EPLF and the TPLF in the North (see also FBIS Record (1986c); cf. FBIS Record

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[241] As in Sudan, the Mengistu regime was reluctant to acknowledge the adverse impacts of the 1984-1985 drought on the rural population despite several early warnings/reports. Furthermore, when the Derg realized the level of destruction caused by the drought, they tried to hide it from the international community. The reason for such a coverup was mainly related to the prevention of the Derg's international prestige from damage. For more detailed information on how the Derg reacted to the 1984-1989 drought in its early phase, please see: Giorgis. (1989). *Red Tears: War, Famine, and Revolution in Ethiopia*. The Red Sea Press. (Chapter 4).

(1989c)).[242] Based on my reading of the Ethiopian case, I argue that Mengistu aimed to achieve two goals simultaneously by implementing resettlement and villagization policies: (i) transforming the rural population from a feudal-like lifestyle to a communal one, thus contributing to the success and effectiveness of collective and state farms; and (ii) undermining the social bases of rebel groups through population transfers, manipulation of international aid, hunger, and diseases.

Interestingly, similar policies were implemented by the al-Bashir regime against the SPLA in Southern Sudan in the second Sudanese Civil War (1983-2005). As happened in Sudan, the Mengistu regime was not able to achieve its goals. Nevertheless, although economic crises due to maladministration and droughts are common factors in both cases, the failure of the Derg regime was rather related to (i) the relatively early unification of rebel groups (e.g., EPLF & TPLF/EPRDF) against Addis Ababa and (ii) the withdrawal of Soviet military and economic support during an ongoing civil war and economic crisis. Regarding the former, for instance, both the EPLF and TPLF were able to establish their own humanitarian relief agencies: the *Relief Society of Tigray* (REST) and the *Eritrean Relief Association* (ERA). Despite the Derg's attempt to prevent international aid from reaching rebel-held areas (see FBIS Record (1988e)) and the UN's blind eye to all these obstacles in order to ensure the continuous flow of aid (see De Waal (1991, 1997, Chapter 6)), northern rebel groups (EPLF & TPLF) were

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[242] It is important to note that both arguments were questionable. Dawit Wolde Giorgis (1989) was the head of the Ethiopian *Relief and Rehabilitation Commission* (RRC) at that time, thus more likely to depict the two policies as if they were designed specifically to deal with the 1984-1989 drought. Alex de Waal (1991, 1997), on the other hand, mostly focuses on the coincidence of these two policies and the military operations taken against the EPLF and the TPLF. From his perspective, such coincidences and the military tactics (e.g., air bombardments of trade roads/centers, blocking humanitarian aids) used by the Derg were indications of the regime's scorched-earth military strategy. Since these two arguments have some merit but lack sufficient strong evidence, I argue that the Derg/Mengistu could aim for both goals simultaneously.

able to maintain their aid activities by helping each other and with the help of other countries (e.g., Sudan) (cf. Giorgis (1989, Chapter 11)).[243] Nevertheless, it is worth noting that over $2 million worth of emergency relief aid was sent to drought/famine-stricken Ethiopian people by international public and private donors, mostly from the US, between 1984 and 1986. The UN, on the other hand, played a role mostly in coordinating and distributing relief aid to drought/famine-stricken people by establishing a special Office for Emergency Operations in Ethiopia (OEOE) (USAID, 1987, pp. 10-11).

A much more important contributing factor to the fall of the Mengistu regime was the withdrawal of Soviet military and economic support. The early contact between the USSR and Mengistu began in 1977 when Mengistu became the undisputable leader of the Derg. At the end of the Ogaden War (1977-1978), the relationship between the Eastern Bloc (e.g., USSR, Cuba & East Germany) and Ethiopia began burgeoning rapidly as US relations deteriorated gradually (see FBIS Record (1984, 1985c, 1989e)). During the 1980s, good relationships with the Eastern Bloc were evident in almost all areas, from military to investments. Nevertheless, the deteriorating economic situation in the USSR due to the increasing arms race with the US forced Mikhail Gorbachev cut Soviet support for its satellites. Ethiopia was no exception (see FBIS Record (1989d)). Coinciding with the ongoing civil war and economic crisis, the lack of Soviet support put the Ethiopian economy on the verge of collapse. Although Mengistu tried to pursue more liberal economic policies in the late 1980s, they were too little and too late (see

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[243] There were also several claims/reports that the northern rebel groups, namely the EPLF and TPLF, were attacking international aid convoys, thus contributing to the deterioration of the humanitarian crisis in northern Ethiopia. For more information, please see: FBIS Record (1987, 1988c, 1988d).

FBIS Record (1989g)). For instance, between 1984-1985 when the 1984-1989 drought hit Ethiopia most severely, the share of the agricultural sector in GDP was almost 44% but its contribution to GDP diminished by more than 16%, and correspondingly GDP growth rate *per annum* had fallen by 7% in response. At the same time window, however, the overall fiscal deficit as a percentage of GDP was around 16%. Although the effects of the drought on agriculture diminished gradually towards the end of the 1980s, the overall fiscal deficit skyrocketed to almost 23% in 1988-1989 when Soviet Russia decided to withdraw its military and financial support to Ethiopia. This outcome occurred at the expense of positive developments in GDP growth rates and agricultural production. In contrast to the early 1980s, the contribution of agricultural output to GDP was around 5% and the GDP growth rate *per annum* was exactly 5% in the second half of the 1980s. Despite improvements in agricultural production and GDP growth rates, the increase in the overall fiscal deficit had more to do with Gorbachev's withdrawal of Soviet support to satellite states (Ofcansky & Berry, 1993, pp. 340-341; see also Wubneh (1993, pp. 149-150, 164)). To elaborate further, from 1977 to 1990, the Soviet military assistance to Ethiopia was estimated at around US$13 billion, including over 2500 military advisers. By the beginning of 1987, however, the Soviet Union had decided to cut its military support to Ethiopia gradually, and thus the Soviet-Ethiopian alliance ended by late 1990 (Keller, 1993, pp. 256-257; see also Ofcansky (1993, pp. 294-296)).

As an indication of Mengistu's declining power and control over Ethiopia after the *Afabet* and *Endasellase* military defeats by the EPLF and the TPLF, respectively, the army staged a failed coup attempt in 1989 (see FBIS Record (1989b, 1989h)). Like Gorbachev, Mengistu faced the collapse of his totalitarian socialist state in 1991 when

he agreed to fly to Zimbabwe under US diplomatic pressure. In the meantime, the EPLF declared its unilateral independence, and the TPLF/EPRDF marched to Addis Ababa in order to take control of Ethiopia (Keller, 1993, pp. 253–265; Ofcansky, 1993, pp. 291–301; Turner, 1993, pp. 63–66; see also Zewde (2016, Chapter 6)). In 1991, the 17-year-long Derg/Mengistu regime came to an end mainly because of the relatively early unification and coordination of the Northern rebel groups and the withdrawal of Soviet support in the 1980s. It is important to highlight that Soviet support was vital for the Mengistu regime during an economic crisis caused by the maladministration of Mengistu and the 1984-1989 drought. Three years later, Eritrea became an officially independent state, and the TPLF/EPRDF was the sole actor in the rest of Ethiopia that had power and capacity to control state territories.

Based on the above discussion, if the Ethiopian Civil War (1974-1991) under the Mengistu regime was essentially an ethnic conflict between the core Amhara group in Addis Ababa and the peripheral Tigray and Eritrean groups in the north, what role, if any, did the 5-year long drought (1984-1989) play in this civil war? More clearly, why was this persistent drought unable to further extend the duration of the Ethiopian Civil War despite it occurring during the last phase of the war? In other words, what factors prevented the prolongation of the civil war by the 1984-1989 drought? As outlined in detail in *Chapter 3*, my theoretical model argues that persistent droughts are likely to prolong ongoing civil wars by undermining people's livelihoods and state capacity. Despite all conditions being met in the Ethiopian case, the 1984-1989 drought could not further extend the ongoing civil war. Almost two years after the drought, the Ethiopian Civil War was terminated with rebel military victory. At first, this outcome seems to contradict my theoretical argument. However, I argue that the reason why the Ethiopian

Civil War did not prolong despite a persistent drought in the final phase of the civil war was related to two factors. First, rebel groups in the north (e.g., EPLF & TPLF) were able to overcome their internal power struggles and form a united/coordinated front against Addis Ababa in a relatively early phase of the civil war. Second, the withdrawal of Soviet support due to a change in the balance of power between the US and the USSR caused an irreversible adverse impact on the Ethiopian economy and state capacity, which was already undermined by the maladministration of Mengistu and the 1984-1989 drought. In brief, these two factors, namely (i) the formation of a united/coordinated front by rebel groups against the central government and (ii) the lack of external economic and military support for the central government, explain why the 1984-1989 drought was unable to further prolong the ongoing Ethiopian Civil War, despite undermining the economy and state capacity while increasing rebel social support. Therefore, I argue that these two factors constitute the scope conditions of my theoretical model.

6.4 Conclusion

When the *ancien régime* collapsed in 1974, Ethiopian people still lived in a feudal-like system, in which the northern Amhara nobility dominated the southern Oromo/Galla landless peasants through an exploitative land tenure system. It is important to note that such an exploitative relationship also includes a cultural aspect in which non-Amhara non-Christian social groups (e.g., Eritreans, Tigray & Somali people) were excluded from political processes. Nevertheless, as long as social groups internalized the dominant Habesha culture, they could be part of the core group in Addis Ababa, as most Oromo/Galla people did. Therefore, when the Derg rose as the sole group who was able to control the revolutionary conditions in Ethiopia, it had to deal

with two urgent issues: (i) an agricultural economic system in which the old elite/nobility exploited landless peasants mostly in the south, and (ii) the controversial Ethiopian identity dominated by the Habesha culture and Amhara ethnic group. To solve these two issues, the Derg implemented several radical reforms (e.g., land reform proclamation, peasant and urban associations, collective farms) in line with its socialist aims while dealing with several rebel groups (e.g., EPLF, TPLF) demanding self-determination or independence and an external invasion (e.g., Ogaden War with Somalia). It is important to note that all of these rebellions in the periphery (e.g., Eritrea, Tigray, Ogaden) were mainly caused by Addis Ababa's modernization efforts centered around the Habesha culture/identity and centralization of state power. The Ogaden War (1977-1978), on the other hand, fundamentally changed the foreign relations of Ethiopia with the US and USSR in a way that would play a significant role in the collapse of the Mengistu regime. In brief, the whole period from 1974 to 1991 was rotated around how and through what policies the Derg would transform traditional Ethiopian society into a socialist one and overcome the historically controversial Ethiopian identity, in which several ethnic (e.g., Eritrea, Tigray, Somali) and religious (e.g., Muslim, Christian) groups had contesting claims. With regard to the latter, the Derg's answer was always military repression.

The revolutionary period (1974-1991) was full of power struggles within the Derg and rebel groups. In 1977, Mengistu was able to liquidate all his rivals and thus took the revolution in a more radical direction. To become the sole leader of the revolution, Mengistu was not hesitant to attack even his former allies, such as EPRP and MEISON, through the red terror campaign. Similarly, both the EPLF and TPLF experienced power struggles with their main groups (e.g., ELF & TLF), but they were

able to have much more broad-based support because of their nonexclusive structures. Once Mengistu and the northern rebel groups were able to provide central authority and control dissident voices, the ongoing civil war reached the point of stalemate at which neither party was able to win over the other, except for temporary battleground victories. This halt was, I argue, mainly related to two factors. First, both the EPLF and TPLF not only overcame their inner power struggles, but also developed bilateral relations to support each other economically and militarily against the common enemy: Addis Ababa. This does not mean that they shared common views on the issues of self-determination and military strategy. Except for a brief separation period (1985-1988), they were aware that both parties needed the other against mighty government forces. Such strategic consideration made both parties overcome their differences relatively quickly and thus form a united/coordinated front against the Derg/Mengistu regime. Second, the withdrawal of Soviet economic and military support for its satellites by Gorbachev was detrimental to the fragile Ethiopian economy. Although Mengistu tried to attract foreign direct investments by implementing relatively liberal economic policies in the late 1980s, they were too little and too late. In fact, the US was the main supporter of the *ancien régime* under Emperor Haile Selassie I. With the 1974 Revolution, however, the relationship with the US began deteriorating. After the rise of Mengistu within the Derg and the Ogaden War with Somalia in the late 1970s, the USSR replaced the US regarding economic and military aid. Given that Ethiopia has limited natural resources, and its economy is dependent on agricultural production, such foreign support has always been an indispensable part of the Ethiopian economy and state capacity. Therefore, with the withdrawal of Soviet support, Ethiopia's economy and counterinsurgency operations fell into dire strait.

It is worth noting that the root causes of the Ethiopian economic crisis in the late 1980s can be traced on two fronts: (i) the maladministration of the Derg/Mengistu regime and (ii) the 1984-1989 drought period, which was more devastating than previous ones. Although the Derg/Mengistu regime aimed to transform traditional Ethiopian society into a socialist one through radical reforms (e.g., land reform, collective and state farms, and peasant associations), these reforms were far from reaching the desired goals. Instead, these reforms further undermined the fragile Ethiopian agricultural economy. The 1984-1989 drought also contributed to the widespread famines throughout the country. Although officials recognized lower precipitation levels before the drought period, such early famine warnings were discarded by Addis Ababa to preserve its domestic and international prestige. Furthermore, two counter-drought policies, namely *resettlement* and *villagization*, were also implemented by the Mengistu regime in order to undermine the social base of both the EPLF and the TPLF in the north. Although implemented as a part of scorched-earth tactics, these two policies were declared countermeasures against the humanitarian crisis of the drought-hit areas. Like what the al-Bashir regime did in Sudan during the second Sudanese Civil War (1983-2005), Mengistu was not hesitant to manipulate international emergency reliefs to the disadvantage of rebel groups. Nevertheless, by establishing humanitarian relief organizations, mainly the REST and ERA, both the EPLF and TPLF/EPRDF were able to overcome such blocks with the help of neighboring states (e.g., Sudan). In brief, rather than nature itself, the 1984-1989 drought was detrimental to rural Ethiopians due to the Mengistu regime's negligence and scorched-earth tactics against rebel groups in the north.

Taking everything into consideration, what roles, in general, do droughts play in civil war dynamics, and what does the Ethiopian Civil War (1974-1991) tell us about the role of droughts in civil war duration and outcomes? As elaborated in *Chapter 3*, my theoretical model of the nexus between water insecurity and civil war dynamics argues that persistent droughts are likely to prolong civil wars by undermining people's livelihoods and/or state capacity. As most developing states rely on agricultural production for revenue, persistent droughts can impact their capacity to provide basic needs for people and/or maintain counterinsurgency operations against rebel groups. Moreover, in drought-hit areas, people can support or participate in rebel groups because of the government's inability to provide basic needs and/or the rebel groups' ability to provide economic rewards. All of these can change the balance of power between government forces and rebel groups, thus impacting their calculation on whether to continue or exit the war. As a result, their decision to continue or exit the war can determine the duration and outcome of ongoing civil wars. In *Chapter 4*, the Chadian Civil War (1965-1979) shows that the Sahel drought heavily undermined the state capacity for counterinsurgency operations against rebel groups and providing basic needs to drought-stricken people in the north. Although there is scattered evidence that drought-stricken people participated in rebel groups, they are not robust and sufficient. Therefore, one can claim that droughts can prolong civil wars by undermining people's livelihoods but predominantly state capacity. In *Chapter 5*, the second Sudanese Civil War (1983-2005), on the other hand, shows that even short drought periods can cause prolonged civil wars; thus, persistent droughts are not a necessary cause for prolonged civil wars. Although drought-induced famines and international relief aid were helpful for the government to continue its counterinsurgency operations in the south, the main

reason for this prolonged civil war was rather related to natural resources. On the north-south border, both the government and rebel forces aimed to control oil reserves. Therefore, the power struggle to control natural resources is found to be an alternative causal mechanism for prolonged civil wars. Last but not least, *Chapter 6* examines the Ethiopian Civil War (1974-1991) and finds that persistent droughts are not a sufficient cause of prolonged civil wars. The Ethiopian case rather sheds light on the conditions under which persistent drought can lead to prolonged civil wars. In this regard, two factors were found to be significant: (i) the unification/coordination between rebel groups against governments and (ii) external military and/or economic support for governments. In brief, by combining the outcomes of *Chapters 4* (Chad) and *6* (Ethiopia), droughts can be expected to cause prolonged civil wars by predominantly undermining state capacity, but only when rebel groups are not unified/coordinated, and/or when governments do not receive military and/or financial support from external powers. Regardless of droughts, though they can help governments maintain counterinsurgency operations through famines and international relief aid, power struggles to control natural resources between government forces and rebel groups are likely to cause prolonged civil wars, as happened in Sudan (*Chapter 5*).

Chapter 7

CONCLUSION

This chapter draws conclusions based on mixed-methods research findings of the nexus between water insecurity and civil war dynamics, as well as provides recommendations for future research. First, the purpose of the study, research questions, and an overview of the literature are presented. It then presents the study's findings and how they contribute to the relevant literature, its limitations, and recommendations for future research.

7.1 Summary of Research & Findings

This dissertation project aims to understand whether and how water insecurity affects the duration and outcomes of civil wars. To this end, this dissertation aims to answer two interrelated research questions. First, it aims to understand whether water insecurity proxied by droughts extends the duration of civil wars and affects their outcomes. Second, if any impact is found, then it aims to investigate the causal mechanism through which persistent droughts are likely to prolong ongoing civil wars. In line with these research questions, this dissertation project is structured into two distinctive parts: quantitative and qualitative. In the first part, a global sample of civil wars is utilized to analyze whether droughts impact civil war dynamics. In this section, a competing risks survival analysis, which is often used in health sciences, is applied to the merged dataset. By doing this, the impact of droughts on civil war durations for each civil war outcome and the impacts of moderator variables on each civil war dynamics

((i) economic structure, (ii) number of actors, and (iii) discriminatory/exclusionary policies) are analyzed. In the second part, three African civil war cases are investigated to understand how varying drought periods could impact civil war duration and outcomes. In this section, FBIS historical records are investigated to determine whether (i) the loss of livelihoods and (ii) decreased state capacity are the mediator variables between varying drought and civil war durations.

For the mixed-method analysis, I first construct a theoretical model with a deductive approach by reviewing both civil war and environmental security/conflict literature. It is worth highlighting that although many variables of civil war dynamics are taken from the civil war onset literature, environmental factors are an exception (see Busby (2018); Uexkull & Buhaug (2021)). Although other civil war onset variables/factors (e.g., state capacity, rebel mobilization and finance, *et cetera*; see *Chapter 2*) are applied to civil war duration models, environmental factors have not been investigated and utilized as such, with a few exceptions (e.g., Eastin (2016); Enia (2008); Keels (2019); Nemeth & Lai (2022)). Therefore, by thoroughly investigating civil war and environmental security/conflict literature, I develop a theoretical model in which both moderator and mediator variables play a role in the nexus between water insecurity and civil war dynamics, consisting of duration and outcomes. According to my theoretical model, water insecurity proxied by droughts could impact civil war dynamics in conditional (moderator variables) and indirect (mediator variables) ways. I argue that the three conditional factors that are likely to impact the drought-civil war dynamics nexus are (i) the economic structure of countries, (ii) the number of non-state actors involved in conflicts, and (iii) the discriminatory/exclusionary state policies against particular social groups. In addition to these moderator variables, I argue that

droughts could impact civil war dynamics in two different but interrelated indirect ways: (i) the loss of livelihoods and (ii) decreased state capacity. According to these mediator variables, persistent droughts are likely to undermine people's livelihoods in drought-hit areas, given that many civil war cases erupt in developing states whose economy is dependent on agricultural production. Such an outcome could make drought-stricken people join rebel groups for economic incentives and/or financial gains, as most rebel groups have non-agricultural income resources (e.g., exploitation of natural resources, smuggling, plunder, *et cetera*). Moreover, as state revenues decline due to drought-induced low agricultural production, developing states are less likely to provide basic social services and needs to people in drought-hit areas, which, in the end, contributes to people's participation in rebel groups due to heightened grievances against governments. Last but not least, drought-affected states are less likely to maintain their counterinsurgency operations against rebel groups, as their income declines due to drought-induced adverse impacts on economic activity. All these factors contribute to changes in the balance of power between warring parties and, thus, their strategic calculations on whether to continue or exit the war. Ultimately, such drought-induced changes in the balance of power and strategic calculations would affect the duration and outcomes of civil wars, given the inextricable relationship between civil war duration and outcomes.

Chapter 3, in which I evaluate the impacts of the moderator variables on the water insecurity-civil war dynamics nexus by using a competing risks survival analysis, concludes that civil wars are generally more likely to end with negotiated settlements (not rebel victories) in a shorter time when they experience persistent droughts simultaneously. Although persistent droughts are likely to decrease the required time

for the incidence of government victories, their magnitude of impact is unsubstantial relative to negotiated settlements. As is clear, such an outcome is more in line with the environmental peace perspective in which environmental issues are seen as the contributing factors for cooperation and peace, rather than armed conflicts. Although there is an impact of persistent droughts on civil war prolongation, this impact is not as significant as the environmental conflict perspective states (see Döring (2020), van Weezel (2019)). Moreover, the conditional factors (moderator variables) that significantly interact with persistent droughts are (i) the weight of the agricultural sector in the economic structure and (ii) the number of active rebel groups. Interestingly, contrary to my expectations and the results of previous research (e.g., Detges (2016; 2017), Uexkull et al. (2016)), I found no empirical evidence for the impact of discriminatory/exclusionary state policies on the nexus between water insecurity and civil war dynamics. Such an outcome, in part, could be attributed to the use of aggregated data at the national level in my dissertation. Studies that found an impact of conditional factors on conflicts (e.g., Detges (2016; 2017), Uexkull et al. (2016)) rather focus on individual- and/or group-level analysis by utilizing disaggregated data at the sub-national level (e.g., regions, cities), as the related literature is directed towards (see Uexkull and Buhaug (2021)). In brief, contrary to my expectations, persistent droughts in ongoing civil wars are less likely to increase the duration of civil wars for negotiated settlements and government victories. Instead, they decrease the duration of civil wars for negotiated settlements and government victories. Furthermore, the impact of the moderator variables is not substantial enough to be considered in the real world. Nevertheless, it is worth highlighting that their statistically significant impacts suggest that there are reliable causal linkages underpinning the relationship between drought

and civil war durations. Even though the impact of droughts seems to have a small effect on civil war duration, droughts may reduce an ongoing civil war by a non-negligible period of time, which, although small in the broader length of a civil war, could lead to thousands of lives saved, if not more.

Chapters 4, *5*, and *6*, in which I investigate the causal mechanism between water insecurity and civil war dynamics by using the process tracing method, evaluate whether the proposed causal mechanisms, namely (i) the loss of livelihoods and (ii) decreased state capacity, can lead to prolonged civil wars. In *Chapter 4*, the Chadian case as the dissertation's primary/most-likely case reveals that the Sahel drought (1968-1976) affected the first Chadian Civil War (1965-1979) by undermining people's livelihoods but predominantly decreasing state capacity. Although there is scattered evidence for the first causal mechanism, which is the loss of livelihoods, drought-induced low-state capacity is the most visible causal mechanism between persistent droughts and prolonged civil wars. With the decreased Chadian state capacity caused by the Sahel drought, the Tombalbaye regime (1960-1975) was unable to provide basic social services/needs to drought-stricken people and maintain counterinsurgency operations against rebel groups. As a result, the northern Arab and Toubou rebel groups became victorious in 1979 by ousting the Tombalbaye (1960-1975) and Malloum (1975-1979) regimes in the first Chadian Civil War.

Chapter 5, in which I examine the Sudanese case, shows that persistent droughts are not necessary for prolonged civil wars. In other words, even short drought periods can lead to prolonged civil wars, as the 1987, 1990, and 1996 short drought periods in Sudan extended the second Sudanese Civil War (1983-2005). Despite all this, the Sudanese case is important because of its ability to provide an alternative causal

mechanism for prolonged civil wars. As an equifinality case, the Sudanese case demonstrates that the existence of exploitable natural resources (e.g., oil) can lead to prolonged civil war, as warring parties try to control natural resources for their advantage by prolonging the ongoing civil war. With oil reserves on the north-south border, the al-Bashir regime aimed to control petrodollar revenue by thwarting the SPLA control of the Abyei and Bentiu regions. To this end, the al-Bashir regime was not hesitant to implement scorched-earth policies by manipulating international emergency relief aid and utilizing pro-government militias through economic incentives/rewards. It is important to note that both counterinsurgency tactics were viable for the NIF regime because of three short drought periods and intentional famines.

Chapter 6, in which I examine the Ethiopian case, demonstrates that even persistent droughts are not a sufficient condition for prolonged civil wars. The 1984-1989 drought in Ethiopia was not able to extend the duration of the ongoing civil war (1974-1991) despite occurring during its last phase. Although such an outcome may seem to falsify my propositions, it nevertheless sheds light on the scope conditions of my theoretical model. In other words, the Ethiopian case reveals the conditions under which persistent droughts could lead to prolonged civil wars. According to my process-tracing of the Ethiopian Civil War (1974-1991), it becomes evident that droughts can extend the duration of civil wars when (i) rebel groups are unable to unite/coordinate their operations against central governments and/or when (ii) warring parties are unable to receive external support, be it financial or military. In the Ethiopian case, although the EPLF and TPLF were able to form a united/coordinated front against the Derg/Mengistu regime in the early years of the civil war, the withdrawal of Soviet

support by Gorbachev towards Ethiopia in the late 1980s was detrimental to the Ethiopian economy. It is worth highlighting that the Ethiopian economy was already devastated by the ongoing civil war, the maladministration of Mengistu, and the failed land/agricultural policies of the Derg. Therefore, the lack of Soviet support seemed to be the final blow against the Mengistu regime. The Derg/Mengistu regime prevented its collapse with Soviet help, despite having social and economic problems, such as revolution, civil war, and famines. Given the united/coordinated rebel front against Addis Ababa, the lack of Soviet support contributed the most to the collapse of the 17-year-long communist regime. Like what the al-Bashir regime did against the SPLA in Sudan, Mengistu utilized the 1984-1989 drought as a pretext to implement scorched-earth policies by manipulating international aid and establishing/supporting pro-government militias. Nevertheless, droughts and famines did not seem sufficient to overthrow the Mengistu regime by the EPLF and TPLF, until the USSR withdrew its support.

Overall, one can argue that water insecurity proxied by persistent droughts affects civil war dynamics, which consist of duration and outcomes. More specifically, persistent droughts shorten the time required for government victories and predominantly negotiated settlements. This occurs through two interrelated causal mechanisms: (i) the loss of livelihoods; thus, heightened grievances against governments who are unable to provide basic needs to drought-stricken people and the increased participation of rebel groups for economic incentives/rewards, as rebel groups have other financial resources/activities to provide, but predominantly (ii) the decreased state capacity to provide basic needs to people occupying drought-hit areas and to maintain counterinsurgency operations against rebel groups, as most state revenues in

the developing world are dependent on drought-sensitive agricultural production. However, these two mechanisms do not operate under vacuum conditions. (i) The weight of agriculture in the economic structure and (ii) the number of active non-state actors affect the relationship between droughts and civil wars. As the weight of agriculture in the economic structure increases, civil wars end with government victories in a longer time but a shorter time for rebel victories. Moreover, as the number of active non-state actors increases in an ongoing civil war, droughts are likely to prolong the civil war for both government and rebel victories.

Last but not least, it is worth noting that droughts are neither necessary nor sufficient conditions for prolonged civil wars. In other words, persistent droughts can only extend the duration of civil wars unless (i) rebel groups are united/coordinated with their activities against central governments and/or (ii) one of the warring parties has external financial and/or military support.[244] On the other hand, if a country experiencing civil war has exploitable natural resources, the war is more likely to be prolonged, irrespective of droughts. In such civil war cases, governments utilize droughts as part of their counterinsurgency operations against rebel groups by manipulating international relief aid and recruiting pro-government militias through economic incentives/rewards under famine conditions.

7.2 Contributions & Limitations

This dissertation contributes to the literature in three ways. First, human and state securities are interconnected and inseparable phenomena that significantly affect

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[244] In order to understand whether one or both conditions are required for the outcome, one needs to conduct a qualitative comparative analysis (QCA). As the QCA is outside this dissertation's method scope, I leave the question only as a recommendation for future research.

one another. As clearly demonstrated in the Chadian, Sudanese, and Ethiopian cases, the loss of livelihoods and decreased state capacity impact the security of people and states in a vicious cycle. Moreover, environmental problems, such as droughts in my dissertation project, aggravate the insecurity of people and states by further destabilizing the livelihoods of people and the capacities of states. Such environmental issues can contribute to understanding why we have experienced prolonged civil wars, particularly in the developing world (e.g., Africa). Given that many developing states depend on agricultural revenues (e.g., Chad, Sudan, and Ethiopia), it is unsurprising that droughts and famines devastate people's lives. However, it is important to highlight that such adverse effects can occur not only at the individual level, but also at the societal and state levels. People who are left alone by states lacking the capacity to provide basic social services and needs in natural disaster-affected areas can join dissident and/or rebel groups in order to raise their grievances and/or gain economic rewards through non-agricultural activities (e.g., smuggling, plundering, et cetera). Similarly, states cannot maintain their fundamental goals, which are to provide basic social services and needs to their citizens and to ensure national security/territorial integrity, as their revenue declines due to the impacts of natural disasters/environmental problems on their agricultural economies. These two outcomes explain to some extent why developing states, mostly in Africa, have experienced prolonged armed conflicts. In brief, as the human security literature points out (see *Chapter 1*), environmental issues are integral to human security, encompassing both traditional/military and nontraditional/non-military security aspects.

Second, despite the emphasis of the environmental security literature on environmental issues as a threat multiplier in civil war onset (e.g., CNA Military

Advisory Board (2007); US Department of Defense (2014); see also *Chapter 2*), environmental issues, particularly droughts, can also contribute to the prolongation and varying outcomes of civil wars. Instead of focusing on the role of environmental issues in generating armed conflicts, it could be beneficial for environmental security literature to shed light on how varying environmental issues can impact civil war dynamics. By doing so, researchers can obtain more nuanced information regarding the role of the environment in conflict dynamics and processes. Although the environmental security literature has begun to focus on investigating the environmental impacts on the occurrence of non-violent demonstrations or low-intensity conflicts at the local/communal level in recent years (e.g. Koren et al. (2021); Koubi et al. (2021); Petrova (2021); Uexkull & Buhaug (2021)), the potential nexus between environmental issues and civil war dynamics can still contribute to our understanding of the role of the environment in armed conflicts at the national level (e.g., Bagozzi et al. (2017); Koren & Bagozzi (2017); Linke & Ruether (2021); Vesco et al. (2021)). As researchers investigate this nexus in more detail by examining other environmental issues and using more advanced statistical models, we will better understand the inextricable link between the environment and social phenomena.

Finally, this dissertation uses an advanced statistical analysis, mostly used in health sciences, to understand the impact of droughts on civil war duration and outcomes. The significance of competing risks survival analysis comes from providing specific information regarding the impact of independent variables on the duration of at least two different outcomes. By utilizing such advanced statistical analysis, this dissertation sheds light on how varying drought periods impact the duration and incidence of civil war outcomes. As seen in *Chapter 3*, when there is no difference

between civil war outcomes in statistical analysis, droughts appear to have no effect on civil war termination. However, when civil war outcomes are differentiated into rebel victory, government victory, and negotiated settlement, it becomes evident that droughts have various impacts on each outcome. For instance, although droughts increase the incidence of negotiated settlements and government victories in a shorter time, they do not statistically impact rebel victories. Therefore, it is important to evaluate each civil war outcome separately in order to obtain more nuanced and sophisticated knowledge regarding the environment-conflict nexus. By realizing this, my dissertation project shows that water insecurity proxied by droughts is likely to affect civil war duration and outcome.

Despite these contributions, this study had several limitations. First, aggregated national-level data were used for the quantitative analysis. Although such a dataset can provide a general picture of the drought-civil war dynamics nexus, using disaggregated local-level data (e.g., grid cells & geo-referenced data) could have been more informative in terms of providing more nuanced information. As the impact of droughts is not likely to be the same throughout a country, differentiating localities in terms of drought impact can provide a more accurate picture. Moreover, determining the start and end dates of droughts is problematic, as various sources contain conflicting data. Given that this dissertation not only focuses on the impact of simultaneous drought occurrence in an ongoing civil war, but also the impact of varying *drought periods* on civil war dynamics, knowing the exact dates could have made a difference in the outcomes of the statistical analysis. Despite these shortcomings, one can still comprehend whether water insecurity/droughts are likely to affect civil war dynamics even with an aggregated national-level dataset.

Another shortcoming relates to the qualitative part, in which I examine FBIS historical records through process tracing. Although I considered the FBIS records that would provide ample evidence for the drought-civil war dynamics nexus, there was a very limited amount of information regarding environmental issues in the records. This can be attributed to two factors. First, as environmental issues are mostly not considered the core/traditional theme of security studies (e.g., Miller (2001); Walt (1991); see *Chapter 1*), they are generally ignored unless they greatly impact states' economic stability and foreign relations. Most records, for instance, were mainly related to donor countries, international aid, and the adverse impacts of droughts on people and the economy. Beyond the economic consequences, finding evidence for rebel mobilization and changing state capacity is a daunting task. This situation is somewhat expected, as many consider security studies in realist paradigms and military affairs (e.g., Miller (2001); Walt (1991)). It is also worth noting that human security, in which the scope of security studies is expanded (e.g., environmental security) and deepened (e.g., non-state actors & people), is a newly developed concept, particularly in the post-Cold War period (e.g., Buzan (1983); Commission on Human Security (2003); Myers (1989); Paris (2001); Ullman (1983); UNDP Team (1994); Weinert (2009); Westing (1989)). Therefore, finding evidence of changes in the balance of power/strategic calculations due to drought conditions was an arduous task for civil war cases.

Second, as explained in *Part II*, FBIS historical records are essentially English translations of news, articles, interviews, speeches, *et cetera*, by US personnel that are written in local languages. Therefore, the scope and depth of records mirror the US interest in that region/country at that time period. For instance, while *anglophone* Sudanese and Ethiopian cases are rich in terms of the number of detailed records, the

francophone Chadian case is very poor, even in providing important information about the first Chadian Civil War. However, as the US became interested in Chad under the rule of Hissan Habré against Muammar Gaddafi's expansionist aims in Africa, FBIS records became much more abundant and detailed. Therefore, although finding evidence for the Sudanese and Ethiopian cases was relatively easier in the FBIS records, the Chadian case was the hardest in terms of investigation, though it was the primary/most-likely case of the dissertation. In brief, FBIS historical records reflect the international conjuncture and US interests in terms of having detailed documentation, which makes it harder for researchers to investigate particular cases, such as Chad.

7.3 Recommendations for Future Research

In future research, I will make five recommendations for researchers. The first two are related to the method and independent variable(s). As explained in a detailed way in *Chapter 3*, the statistical analysis used in the quantitative part was a competing risks survival analysis, in which I analyzed the impact of droughts on the duration of civil wars for each civil war outcome. Although I used a merged aggregated/national-level dataset for the analysis to explore the nexus between droughts and civil war dynamics, it would be better to use a disaggregated/local-level dataset in order to understand how varying drought periods affect civil war processes in various locations of a specific territory. Considering that droughts do not expose their adverse effects to the same extent in every part of a country, using a disaggregated/local-level dataset (e.g., grid cells & geo-referenced data) can provide a more detailed picture in terms of how droughts impact rebel groups and governments in particular regions. Therefore, we could have more nuanced information about the micro-mechanism of the drought-civil war dynamics nexus. Moreover, environmental issues in the developing world are not

limited to droughts and famines. Floods, earthquakes, and storms are also the most widely observed types of natural disasters. Therefore, extending the scope of environmental issues from water insecurity to other natural disasters could provide a more holistic view of the relationship between the environment and armed conflict. Although this dissertation focuses on water insecurity proxied by droughts, paying attention to other climate change-induced environmental problems can benefit environmental security/conflict literature by exposing the impact of the environment on social phenomena.

Third, although process tracing with archives/historical records could be helpful in conducting a micro/meso-level analysis, interviews with decision-makers and/or experts/academics can better provide detailed information, particularly for non-traditional security topics/themes. As discussed above, environmental issues in security studies have gained prominence in recent decades through the development of the human security concept. Even today, security studies are still considered state- and military-centered by most researchers. Therefore, finding sufficient and robust evidence in archives/historical records (e.g., FBIS) is more difficult when the research topic/theme relates to environmental issues.

The last two recommendations relate to civil war dynamics in general. Particularly when investigating the Chadian, Sudanese, and Ethiopian cases, it became evident that two factors were likely to impact civil war duration and outcomes: (i) colonial past/legacy and (ii) international humanitarian aid. Although these two factors have been studied extensively in the past with regard to civil war initiation (e.g., Athow & Blanton (2002); Blanton et al. (2001)) and economic development (e.g., Moyo (2009); Shearer (2000)), they have not been studied to the same extent for civil war

dynamics. Therefore, both colonial past/legacy and international humanitarian aid can affect the duration and outcome of civil wars by undermining the institutional capacity of states (see *Chapters 4* & *5*) and changing the balance of power among belligerents (see *Chapters 5* & *6*), respectively. Doing research on these topics can undoubtfully extend our limited understanding of civil war dynamics.

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Appendix A
COEFFICIENTS OF MODEL SPECIFICATIONS

Table A-1: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Base Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.733**	2.008**	-0.615	0.0725
	(0.696)	(0.984)	(0.792)	(0.483)
Economic Structure	-0.0482*	-0.190***	0.0709	-0.00156
	(0.0286)	(0.0505)	(0.0482)	(0.0117)
Economic Discrimination	-3.298	0.873	3.357**	-0.147
	(3.029)	(0.935)	(1.577)	(0.603)
Political Exclusion	1.961*	-1.297	-2.340***	0.654**
	(1.029)	(0.985)	(0.852)	(0.301)
Number of Non-State Actors	0.527	-0.127	1.474**	-0.334
	(0.638)	(0.792)	(0.718)	(0.315)
Organizational Capacity	0.137	15.89***	-0.0685	-0.301
	(0.552)	(1.061)	(0.940)	(0.264)
Mobilizational Capacity	-0.410	0.221	0.601	-0.306
	(0.823)	(0.903)	(0.918)	(0.350)
Political Representation	0.701	2.081**	2.051**	0.713***
	(0.683)	(1.016)	(0.862)	(0.275)
External Support	-0.389	0.701	1.221	-1.015***
	(0.605)	(0.737)	(1.261)	(0.303)
Natural Resources	2.527**	-1.875**	-2.263**	0.171
	(1.025)	(0.917)	(0.964)	(0.360)
Ethno-Linguistic Fractionalization	1.417	-3.969	-0.363	-2.161**
	(2.245)	(3.417)	(4.665)	(0.952)
Regime Type	-1.787	-0.278	-16.24***	-0.947
	(1.152)	(0.708)	(1.328)	(0.680)
Ln GDP *per capita*	-0.192	-1.950**	0.403	0.0866
	(0.602)	(0.795)	(1.668)	(0.300)
Ln Population	0.186	-0.715	-0.447*	-0.296**
	(0.385)	(0.493)	(0.228)	(0.146)
Time Frame	-2.008***	4.000***	-1.185	-0.312
	(0.767)	(1.146)	(1.269)	(0.310)
Region	-1.432	-2.936***	0.710	0.341
	(1.192)	(0.802)	(1.008)	(0.574)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table A-2: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Model I: Drought Ratio x Economic Structure
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.443*	12.14**	-8.845**	0.0872
	(1.864)	(5.320)	(4.124)	(1.844)
Economic Structure	-0.0338	-0.208*	0.0475	-0.00152
	(0.0260)	(0.115)	(0.0377)	(0.0125)
Drought Ratio x Economic Structure	-0.0644	-0.452**	0.202**	-0.000382
	(0.0744)	(0.224)	(0.0829)	(0.0432)
Economic Discrimination	-3.489	1.056	4.159**	-0.148
	(3.011)	(0.922)	(1.664)	(0.612)
Political Exclusion	1.835*	-1.428*	-2.323**	0.655**
	(1.012)	(0.839)	(1.176)	(0.301)
Number of Non-State Actors	0.666	0.225	1.217	-0.334
	(0.716)	(0.953)	(0.742)	(0.314)
Organizational Capacity	0.112	17.43***	-0.397	-0.301
	(0.607)	(2.342)	(0.819)	(0.263)
Mobilizational Capacity	-0.504	0.0225	0.997	-0.307
	(0.873)	(0.847)	(1.232)	(0.345)
Political Representation	0.568	3.100**	2.541***	0.714**
	(0.624)	(1.269)	(0.867)	(0.290)
External Support	-0.191	1.308	1.074	-1.015***
	(0.758)	(1.341)	(0.945)	(0.310)
Natural Resources	2.628**	-0.924	-2.091**	0.172
	(1.078)	(0.715)	(1.026)	(0.361)
Ethno-Linguistic Fractionalization	1.087	-3.371	-0.830	-2.164**
	(2.224)	(3.544)	(4.100)	(1.043)
Regime Type	-1.584	-0.261	-15.92***	-0.947
	(1.172)	(0.715)	(1.618)	(0.681)
Ln GDP *per capita*	-0.311	-1.527	0.262	0.0859
	(0.669)	(0.933)	(1.402)	(0.298)
Ln Population	0.0484	-2.383	-0.686***	-0.296*
	(0.458)	(1.524)	(0.205)	(0.153)
Time Frame	-2.180***	7.349**	-1.741	-0.312
	(0.774)	(3.350)	(1.187)	(0.311)
Region	-1.335	-5.177**	1.100	0.342
	(1.256)	(2.622)	(1.024)	(0.602)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table A-3: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Model II: Drought Ratio x Number of Non-State Actors
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.251	71.80	1.757	0.641
	(0.952)	(0)	(1.528)	(0.933)
Economic Structure	-0.0497*	-0.169***	0.0963	-0.000765
	(0.0283)	(0.0559)	(0.0692)	(0.0120)
Economic Discrimination	-3.653	0.832	3.008**	-0.213
	(3.137)	(0.872)	(1.498)	(0.615)
Political Exclusion	2.012**	-1.185	-3.459**	0.701**
	(1.013)	(0.949)	(1.396)	(0.306)
Number of Non-State Actors	0.251	-0.0234	2.648**	-0.296
	(1.029)	(0.726)	(1.134)	(0.307)
Drought Ratio x Number of Non-State Actors	0.283	-69.45***	-1.119**	-0.252
	(0.513)	(0.982)	(0.530)	(0.364)
Organizational Capacity	0.137	25.01***	0.214	-0.280
	(0.563)	(1.222)	(0.857)	(0.262)
Mobilizational Capacity	-0.322	0.165	0.369	-0.373
	(0.905)	(0.904)	(0.789)	(0.356)
Political Representation	0.663	2.266**	2.462**	0.789***
	(0.713)	(1.141)	(0.994)	(0.279)
External Support	-0.406	0.744	1.575	-1.015***
	(0.597)	(0.727)	(1.523)	(0.309)
Natural Resources	2.464**	-1.885**	-2.341**	0.147
	(1.068)	(0.892)	(1.126)	(0.358)
Ethno-Linguistic Fractionalization	1.518	-4.142	0.0309	-2.496**
	(2.238)	(3.342)	(5.522)	(1.144)
Regime Type	-1.705	-0.190	-17.28***	-0.995
	(1.208)	(0.692)	(1.029)	(0.700)
Ln GDP *per capita*	-0.165	-1.977**	0.661	0.0189
	(0.578)	(0.830)	(2.007)	(0.322)
Ln Population	0.193	-0.672	-0.503**	-0.283*
	(0.384)	(0.502)	(0.240)	(0.146)
Time Frame	-1.982***	3.806***	-1.148	-0.289
	(0.754)	(1.172)	(1.495)	(0.311)
Region	-1.467	-2.636***	0.820	0.471
	(1.170)	(0.973)	(0.939)	(0.629)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table A-4: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Model III: Drought Ratio x Political Exclusion
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	2.756**	1.787	-1.712*	-0.309
	(1.267)	(1.286)	(1.015)	(0.802)
Economic Structure	-0.0538*	-0.189***	0.0803	-0.000660
	(0.0282)	(0.0497)	(0.0559)	(0.0119)
Economic Discrimination	-2.561	0.914	3.503**	-0.0688
	(2.588)	(0.962)	(1.683)	(0.592)
Political Exclusion	2.705***	-1.392	-3.435**	0.553*
	(1.009)	(1.023)	(1.525)	(0.310)
Drought Ratio x Political Exclusion	-1.522	0.636	1.732	0.586
	(1.458)	(2.225)	(1.388)	(0.893)
Number of Non-State Actors	0.385	-0.127	2.268**	-0.328
	(0.612)	(0.801)	(0.962)	(0.320)
Organizational Capacity	0.123	22.36***	0.241	-0.277
	(0.509)	(1.061)	(0.866)	(0.265)
Mobilizational Capacity	-0.495	0.284	0.693	-0.297
	(0.864)	(0.961)	(1.001)	(0.354)
Political Representation	0.879	2.025*	2.153**	0.600*
	(0.639)	(1.048)	(0.937)	(0.325)
External Support	-0.197	0.677	1.427	-1.023***
	(0.660)	(0.747)	(1.381)	(0.303)
Natural Resources	2.429**	-1.810**	-2.181**	0.190
	(1.056)	(0.923)	(0.942)	(0.362)
Ethno-Linguistic Fractionalization	0.677	-3.777	0.362	-1.992**
	(2.489)	(3.443)	(5.411)	(0.935)
Regime Type	-1.768	-0.321	-23.46***	-0.980
	(1.164)	(0.724)	(1.102)	(0.666)
Ln GDP *per capita*	-0.415	-1.817*	0.602	0.154
	(0.632)	(1.031)	(1.779)	(0.317)
Ln Population	0.136	-0.747	-0.422	-0.289**
	(0.405)	(0.535)	(0.285)	(0.145)
Time Frame	-2.068***	4.037***	-1.124	-0.315
	(0.770)	(1.151)	(1.327)	(0.308)
Region	-1.247	-3.077***	0.626	0.205
	(1.344)	(1.083)	(1.032)	(0.630)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A-5: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Model IV: Drought Ratio x Economic Discrimination
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.124	2.224**	-0.816	-0.0498
	(0.721)	(0.942)	(0.806)	(0.483)
Economic Structure	-0.0626*	-0.180***	0.0737	-0.000678
	(0.0362)	(0.0533)	(0.0486)	(0.0120)
Economic Discrimination	-27.07	0.826	1.730	-0.221
	(21.02)	(0.914)	(2.276)	(0.582)
Drought Ratio x Economic Discrimination	26.79	-60.20	6.941	7.049
	(21.23)	(57.35)	(7.252)	(8.067)
Political Exclusion	2.527*	-1.223	-2.340***	0.666**
	(1.363)	(0.989)	(0.847)	(0.293)
Number of Non-State Actors	1.332	-0.126	1.509**	-0.346
	(0.913)	(0.761)	(0.691)	(0.318)
Organizational Capacity	0.196	16.24***	-0.148	-0.369
	(0.557)	(1.167)	(0.929)	(0.266)
Mobilizational Capacity	-0.699	0.200	0.530	-0.281
	(0.940)	(0.912)	(0.924)	(0.359)
Political Representation	0.623	2.109**	2.165**	0.747***
	(0.651)	(1.021)	(1.005)	(0.277)
External Support	-0.346	0.682	1.197	-1.072***
	(0.583)	(0.712)	(1.296)	(0.311)
Natural Resources	3.048***	-1.837*	-2.396***	0.209
	(0.845)	(0.945)	(0.900)	(0.364)
Ethno-Linguistic Fractionalization	2.656	-3.962	-0.633	-2.165**
	(2.004)	(3.284)	(5.006)	(0.952)
Regime Type	-2.915**	-0.208	-14.72***	-0.930
	(1.244)	(0.716)	(0.986)	(0.679)
Ln GDP *per capita*	0.0479	-1.922**	0.461	0.0914
	(0.625)	(0.779)	(1.733)	(0.307)
Ln Population	0.250	-0.705	-0.440*	-0.277*
	(0.354)	(0.526)	(0.242)	(0.144)
Time Frame	-2.232**	3.829***	-1.239	-0.359
	(0.934)	(1.127)	(1.325)	(0.322)
Region	-2.900*	-2.739***	0.804	0.335
	(1.708)	(0.904)	(1.106)	(0.580)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix B
SUB-HAZARD RATIOS & COEFFICIENTS OF FULL MODEL

Table B-6: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Full Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	89.74	1.364×10^{20}***	0.00128*	0.647
	(448.2)	(1.585×10^{21})	(0.00509)	(1.559)
Economic Structure	0.944*	0.741	1.069**	1.000
	(0.0312)	(0.140)	(0.0318)	(0.0143)
Drought Ratio x Economic Structure	0.934	0.219***	1.372*	1.036
	(0.104)	(0.120)	(0.244)	(0.0748)
Economic Discrimination	0	0.869	22.56**	0.788
	(1.91×10^{-10})	(1.091)	(31.43)	(0.464)
Drought Ratio x Economic Discrimination	1.058×10^{12}	0***	111,706	71,623
	(2.332×10^{13})	(0)	(1.225×10^{6})	(510,246)
Political Exclusion	72.53*	0.945	0.0172**	1.800*
	(159.9)	(1.352)	(0.0330)	(0.568)
Drought Ratio x Political Exclusion	0.0371	8.77×10^{-5}	0.233	2.465
	(0.106)	(0.000599)	(0.428)	(2.177)
Number of Non-State Actors	2.154	0.455	30.79**	0.802
	(2.173)	(0.370)	(53.64)	(0.258)
Drought Ratio x Number of Non-State Actors	1.407	0.00387*	0.0560**	0.483
	(0.747)	(0.0119)	(0.0818)	(0.250)
Organizational Capacity	1.134	5.752×10^{10}***	0.607	0.741
	(0.580)	(1.498×10^{11})	(0.770)	(0.199)
Mobilizational Capacity	0.374	0.255	2.118	0.664
	(0.491)	(0.468)	(1.953)	(0.254)
Political Representation	2.445	38.14**	58.63	2.104**
	(1.502)	(59.01)	(148.8)	(0.666)
External Support	1.062	7.643	2.019	0.347***
	(1.192)	(10.33)	(2.598)	(0.123)
Natural Resources	16.58***	3.307**	0.116***	1.154
	(16.49)	(1.967)	(0.0960)	(0.420)
Ethno-Linguistic Fractionalization	1.621	0.00118	0.139	0.0836**
	(4.845)	(0.00532)	(0.312)	(0.0904)
Regime Type	0.128	1.560	1.85×10^{-8}***	0.324
	(0.182)	(1.525)	(2.46×10^{-8})	(0.226)
Ln GDP *per capita*	0.505	0.118	1.509	1.067
	(0.592)	(0.216)	(1.736)	(0.354)
Ln Population	0.927	0.00634**	0.338**	0.782
	(0.707)	(0.0129)	(0.183)	(0.123)
Time Frame	0.0885***	27,784**	0.0626	0.770
	(0.0776)	(142,823)	(0.124)	(0.258)
Region	0.0616	0.00442**	5.991	1.366
	(0.110)	(0.00983)	(11.57)	(0.882)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B-7: Model Specification of Drought Ratio for Ethnic & Non-Ethnic Civil Wars
Full Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	4.497	46.36***	-6.661*	-0.436
	(4.995)	(11.62)	(3.980)	(2.410)
Economic Structure	-0.0579*	-0.300	0.0668**	-0.000382
	(0.0331)	(0.188)	(0.0298)	(0.0143)
Drought Ratio x Economic Structure	-0.0687	-1.520***	0.316*	0.0349
	(0.111)	(0.551)	(0.178)	(0.0723)
Economic Discrimination	-25.35	-0.141	3.116**	-0.239
	(19.57)	(1.256)	(1.393)	(0.589)
Drought Ratio x Economic Discrimination	27.69	-976.1***	11.62	11.18
	(22.04)	(203.8)	(10.96)	(7.124)
Political Exclusion	4.284*	-0.0570	-4.065**	0.588*
	(2.204)	(1.431)	(1.924)	(0.316)
Drought Ratio x Political Exclusion	-3.295	-9.341	-1.456	0.902
	(2.851)	(6.830)	(1.834)	(0.883)
Number of Non-State Actors	0.767	-0.788	3.427**	-0.221
	(1.009)	(0.812)	(1.742)	(0.322)
Drought Ratio x Number of Non-State Actors	0.341	-5.555*	-2.882**	-0.727
	(0.531)	(3.082)	(1.460)	(0.517)
Organizational Capacity	0.126	24.78***	-0.500	-0.300
	(0.511)	(2.605)	(1.270)	(0.269)
Mobilizational Capacity	-0.984	-1.367	0.750	-0.410
	(1.313)	(1.835)	(0.922)	(0.382)
Political Representation	0.894	3.641**	4.071	0.744**
	(0.614)	(1.547)	(2.538)	(0.317)
External Support	0.0604	2.034	0.703	-1.057***
	(1.123)	(1.352)	(1.287)	(0.355)
Natural Resources	2.808***	1.196**	-2.151***	0.143
	(0.995)	(0.595)	(0.825)	(0.364)
Ethno-Linguistic Fractionalization	0.483	-6.739	-1.973	-2.482**
	(2.988)	(4.495)	(2.247)	(1.081)
Regime Type	-2.057	0.444	-17.81***	-1.126
	(1.425)	(0.978)	(1.331)	(0.695)
Ln GDP *per capita*	-0.683	-2.141	0.411	0.0652
	(1.172)	(1.836)	(1.151)	(0.332)
Ln Population	-0.0758	-5.060**	-1.085**	-0.246
	(0.763)	(2.027)	(0.543)	(0.157)
Time Frame	-2.425***	10.23**	-2.771	-0.261
	(0.878)	(5.141)	(1.987)	(0.335)
Region	-2.786	-5.421**	1.790	0.312
	(1.788)	(2.223)	(1.932)	(0.646)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix C
PROPORTIONALITY ASSUMPTION CHECK OF BASE MODEL

Table C-8: Proportionality Assumption Check for Ethnic & Non-Ethnic Civil Wars
Base Model
Sub-Hazard Ratios

VARIABLES	(1) Pooled	(2) Pooled
Drought Ratio	1.075	29.35***
	(0.520)	(24.31)
Economic Structure	0.998	0.998
	(0.0117)	(0.0134)
Economic Discrimination	0.863	0.822
	(0.521)	(0.508)
Political Exclusion	1.924**	1.684
	(0.579)	(0.555)
Number of Non-State Actors	0.716	0.924
	(0.225)	(0.291)
Organizational Capacity	0.740	0.993
	(0.195)	(0.273)
Mobilizational Capacity	0.736	0.453**
	(0.258)	(0.179)
Political Representation	2.041***	1.521
	(0.562)	(0.422)
External Support	0.363***	0.359***
	(0.110)	(0.124)
Natural Resources	1.187	1.086
	(0.428)	(0.391)
Ethno-Linguistic Fractionalization	0.115**	0.0634**
	(0.110)	(0.0735)
Regime Type	0.388	0.294*
	(0.264)	(0.197)
Ln GDP *per capita*	1.090	0.964
	(0.327)	(0.291)
Ln Population	0.743**	0.843
	(0.108)	(0.142)
Time Frame	0.732	2.896
	(0.227)	(2.366)
Region	1.406	1.138
	(0.807)	(0.690)
Drought Ratio x Ln Time		0.456***
		(0.0721)
Time Frame x Ln Time		0.797*
		(0.109)
Number of Conflicts	98	98
Number of Failures	68	68
Observations	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table C-9: Proportionality Assumption Check for Ethnic & Non-Ethnic Civil Wars
Base Model
Coefficients

VARIABLES	(1) Pooled	(2) Pooled
Drought Ratio	0.0725	3.379***
	(0.483)	(0.828)
Economic Structure	-0.00156	-0.00170
	(0.0117)	(0.0134)
Economic Discrimination	-0.147	-0.195
	(0.603)	(0.617)
Political Exclusion	0.654**	0.521
	(0.301)	(0.330)
Number of Non-State Actors	-0.334	-0.0792
	(0.315)	(0.315)
Organizational Capacity	-0.301	-0.00683
	(0.264)	(0.275)
Mobilizational Capacity	-0.306	-0.793**
	(0.350)	(0.395)
Political Representation	0.713***	0.419
	(0.275)	(0.277)
External Support	-1.015***	-1.025***
	(0.303)	(0.347)
Natural Resources	0.171	0.0824
	(0.360)	(0.360)
Ethno-Linguistic Fractionalization	-2.161**	-2.758**
	(0.952)	(1.159)
Regime Type	-0.947	-1.225*
	(0.680)	(0.672)
Ln GDP *per capita*	0.0866	-0.0371
	(0.300)	(0.302)
Ln Population	-0.296**	-0.170
	(0.146)	(0.168)
Time Frame	-0.312	1.063
	(0.310)	(0.817)
Region	0.341	0.129
	(0.574)	(0.606)
Drought Ratio x Ln Time		-0.785***
		(0.158)
Time Frame x Ln Time		-0.227*
		(0.137)
Number of Conflicts	98	98
Number of Failures	68	68
Observations	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix D
ROBUSTNESS CHECK OF MODEL SPECIFICATIONS

Table D-10: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Base Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	4.965***	5.834*	0.522	0.812
	(3.033)	(5.668)	(0.400)	(0.368)
Economic Structure	0.954*	0.824***	1.072	0.998
	(0.0265)	(0.0434)	(0.0525)	(0.0116)
Economic Discrimination	0.0372	2.351	29.91**	0.900
	(0.112)	(2.242)	(47.54)	(0.552)
Political Exclusion	6.964*	0.281	0.0935***	1.876**
	(6.917)	(0.282)	(0.0825)	(0.570)
Number of Non-State Actors	1.714	0.922	4.459**	0.784
	(1.104)	(0.730)	(3.171)	(0.245)
Organizational Capacity	1.155	1.329×10^{7}***	0.884	0.737
	(0.636)	(1.339×10^{7})	(0.859)	(0.192)
Mobilizational Capacity	0.615	1.202	1.794	0.676
	(0.507)	(1.091)	(1.666)	(0.235)
Political Representation	2.065	7.603**	7.302**	2.024**
	(1.389)	(7.820)	(6.251)	(0.575)
External Support	0.700	1.858	3.325	0.382***
	(0.422)	(1.351)	(4.229)	(0.115)
Natural Resources	12.49**	0.148**	0.103**	1.103
	(12.29)	(0.138)	(0.103)	(0.408)
Ethno-Linguistic Fractionalization	4.744	0.0222	0.816	0.107**
	(10.30)	(0.0758)	(3.807)	(0.0999)
Regime Type	0.167	0.692	5.50×10^{-7}***	0.357
	(0.191)	(0.497)	(6.95×10^{-7})	(0.244)
Ln GDP *per capita*	0.828	0.141**	1.493	1.059
	(0.480)	(0.113)	(2.513)	(0.323)
Ln Population	1.200	0.509	0.653*	0.747**
	(0.454)	(0.256)	(0.148)	(0.108)
Time Frame	0.122**	60.04***	0.307	0.738
	(0.0998)	(70.23)	(0.382)	(0.224)
Region	0.227	0.0452***	2.000	1.317
	(0.271)	(0.0358)	(1.998)	(0.734)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-11: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Base Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	1.602***	1.764*	-0.650	-0.208
	(0.611)	(0.972)	(0.767)	(0.454)
Economic Structure	-0.0472*	-0.194***	0.0697	-0.00162
	(0.0278)	(0.0527)	(0.0490)	(0.0116)
Economic Discrimination	-3.292	0.855	3.398**	-0.105
	(3.002)	(0.954)	(1.589)	(0.614)
Political Exclusion	1.941*	-1.271	-2.369***	0.629**
	(0.993)	(1.004)	(0.882)	(0.304)
Number of Non-State Actors	0.539	-0.0816	1.495**	-0.243
	(0.644)	(0.792)	(0.711)	(0.312)
Organizational Capacity	0.144	16.40***	-0.124	-0.306
	(0.551)	(1.007)	(0.971)	(0.261)
Mobilizational Capacity	-0.487	0.184	0.585	-0.392
	(0.826)	(0.908)	(0.929)	(0.348)
Political Representation	0.725	2.028**	1.988**	0.705**
	(0.673)	(1.029)	(0.856)	(0.284)
External Support	-0.357	0.619	1.201	-0.961***
	(0.603)	(0.727)	(1.272)	(0.301)
Natural Resources	2.525**	-1.910**	-2.269**	0.0976
	(0.984)	(0.932)	(0.997)	(0.370)
Ethno-Linguistic Fractionalization	1.557	-3.809	-0.203	-2.237**
	(2.172)	(3.423)	(4.663)	(0.936)
Regime Type	-1.793	-0.368	-14.41***	-1.031
	(1.146)	(0.718)	(1.263)	(0.683)
Ln GDP *per capita*	-0.189	-1.958**	0.401	0.0574
	(0.580)	(0.801)	(1.683)	(0.305)
Ln Population	0.183	-0.676	-0.425*	-0.291**
	(0.378)	(0.503)	(0.227)	(0.144)
Time Frame	-2.103**	4.095***	-1.180	-0.304
	(0.817)	(1.170)	(1.244)	(0.303)
Region	-1.484	-3.097***	0.693	0.276
	(1.196)	(0.791)	(0.999)	(0.557)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-12: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model I: Drought Overlap x Economic Structure
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	18.56*	186,437**	0.000644	0.322
	(32.35)	(996,680)	(0.00303)	(0.544)
Economic Structure	0.965	0.811*	1.049	0.996
	(0.0258)	(0.0923)	(0.0411)	(0.0121)
Drought Overlap x Economic Structure	0.951	0.635**	1.181*	1.025
	(0.0656)	(0.141)	(0.110)	(0.0412)
Economic Discrimination	0.0264	2.862	59.50**	0.959
	(0.0784)	(2.643)	(100.8)	(0.592)
Political Exclusion	6.463*	0.241*	0.0954**	1.787*
	(6.368)	(0.204)	(0.110)	(0.548)
Number of Non-State Actors	1.962	1.273	3.509*	0.760
	(1.461)	(1.186)	(2.605)	(0.236)
Organizational Capacity	1.113	8.095×10^{7}***	0.657	0.732
	(0.657)	(1.905×10^{8})	(0.559)	(0.190)
Mobilizational Capacity	0.568	1.023	2.642	0.709
	(0.498)	(0.871)	(3.292)	(0.246)
Political Representation	1.865	21.93**	10.06***	1.939**
	(1.167)	(27.92)	(7.526)	(0.572)
External Support	0.820	3.591	3.050	0.394***
	(0.614)	(4.773)	(2.913)	(0.119)
Natural Resources	13.35**	0.395	0.122**	1.082
	(13.70)	(0.284)	(0.123)	(0.399)
Ethno-Linguistic Fractionalization	3.636	0.0362	0.648	0.129**
	(7.634)	(0.127)	(2.703)	(0.125)
Regime Type	0.195	0.759	7.52×10^{-8}***	0.371
	(0.228)	(0.535)	(1.15×10^{-7})	(0.252)
Ln GDP *per capita*	0.744	0.216*	1.317	1.082
	(0.484)	(0.200)	(1.955)	(0.329)
Ln Population	1.099	0.0930	0.534***	0.730**
	(0.474)	(0.143)	(0.109)	(0.114)
Time Frame	0.106***	1,611**	0.207	0.734
	(0.0868)	(5,303)	(0.239)	(0.225)
Region	0.234	0.00542**	2.554	1.265
	(0.292)	(0.0138)	(2.517)	(0.707)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-13: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model I: Drought Overlap x Economic Structure
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	2.921*	12.14**	-7.349	-1.132
	(1.743)	(5.346)	(4.703)	(1.689)
Economic Structure	-0.0354	-0.209*	0.0478	-0.00424
	(0.0267)	(0.114)	(0.0392)	(0.0121)
Drought Overlap x Economic Structure	-0.0503	-0.454**	0.166*	0.0251
	(0.0690)	(0.222)	(0.0935)	(0.0402)
Economic Discrimination	-3.633	1.052	4.086**	-0.0416
	(2.965)	(0.923)	(1.695)	(0.617)
Political Exclusion	1.866*	-1.422*	-2.350**	0.580*
	(0.985)	(0.847)	(1.157)	(0.307)
Number of Non-State Actors	0.674	0.241	1.255*	-0.274
	(0.745)	(0.932)	(0.743)	(0.310)
Organizational Capacity	0.107	18.21***	-0.420	-0.312
	(0.590)	(2.353)	(0.851)	(0.260)
Mobilizational Capacity	-0.566	0.0223	0.971	-0.343
	(0.876)	(0.852)	(1.246)	(0.346)
Political Representation	0.623	3.088**	2.309***	0.662**
	(0.626)	(1.273)	(0.748)	(0.295)
External Support	-0.198	1.278	1.115	-0.931***
	(0.749)	(1.329)	(0.955)	(0.302)
Natural Resources	2.591**	-0.928	-2.104**	0.0790
	(1.026)	(0.718)	(1.008)	(0.369)
Ethno-Linguistic Fractionalization	1.291	-3.319	-0.434	-2.045**
	(2.099)	(3.519)	(4.170)	(0.967)
Regime Type	-1.635	-0.275	-16.40***	-0.993
	(1.167)	(0.705)	(1.535)	(0.679)
Ln GDP *per capita*	-0.296	-1.534*	0.275	0.0793
	(0.650)	(0.928)	(1.484)	(0.304)
Ln Population	0.0940	-2.376	-0.627***	-0.314**
	(0.432)	(1.538)	(0.203)	(0.157)
Time Frame	-2.242***	7.385**	-1.574	-0.310
	(0.817)	(3.291)	(1.153)	(0.307)
Region	-1.453	-5.218**	0.938	0.235
	(1.250)	(2.547)	(0.986)	(0.559)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-14: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model II: Drought Overlap x Number of Non-State Actors
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	3.480	5.311×10^{7}***	4.890	0.901
	(3.118)	(1.118×10^{8})	(6.529)	(0.828)
Economic Structure	0.952*	0.840***	1.100	0.999
	(0.0268)	(0.0469)	(0.0760)	(0.0117)
Economic Discrimination	0.0322	2.215	25.67**	0.889
	(0.0951)	(1.969)	(40.20)	(0.548)
Political Exclusion	7.063**	0.316	0.0292**	1.896**
	(6.921)	(0.307)	(0.0450)	(0.589)
Number of Non-State Actors	1.416	1.042	15.39**	0.792
	(1.357)	(0.755)	(19.03)	(0.243)
Drought Overlap x Number of Non-State Actors	1.213	1.61×10^{-7}***	0.328**	0.954
	(0.509)	(2.81×10^{-7})	(0.180)	(0.342)
Organizational Capacity	1.145	1.115×10^{7}***	1.106	0.739
	(0.643)	(1.385×10^{7})	(0.961)	(0.193)
Mobilizational Capacity	0.639	1.169	1.406	0.667
	(0.542)	(1.063)	(1.082)	(0.238)
Political Representation	2.026	9.397**	11.02**	2.055**
	(1.393)	(10.64)	(10.92)	(0.614)
External Support	0.708	1.865	4.883	0.382***
	(0.405)	(1.258)	(7.670)	(0.116)
Natural Resources	11.98**	0.146**	0.0937**	1.097
	(12.20)	(0.132)	(0.111)	(0.409)
Ethno-Linguistic Fractionalization	5.378	0.0193	1.364	0.101**
	(11.62)	(0.0633)	(7.788)	(0.109)
Regime Type	0.175	0.769	2.30×10^{-8}***	0.352
	(0.207)	(0.542)	(2.51×10^{-8})	(0.244)
Ln GDP *per capita*	0.831	0.133**	1.948	1.050
	(0.459)	(0.112)	(3.916)	(0.333)
Ln Population	1.214	0.533	0.615**	0.749**
	(0.451)	(0.266)	(0.140)	(0.109)
Time Frame	0.120**	52.85***	0.315	0.742
	(0.101)	(62.71)	(0.454)	(0.227)
Region	0.217	0.0592***	2.215	1.339
	(0.252)	(0.0546)	(2.068)	(0.780)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-15: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model II: Drought Overlap x Number of Non-State Actors
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	1.247	17.79***	1.587	-0.104
	(0.896)	(2.106)	(1.335)	(0.919)
Economic Structure	-0.0487*	-0.175***	0.0953	-0.00140
	(0.0281)	(0.0558)	(0.0691)	(0.0117)
Economic Discrimination	-3.434	0.795	3.245**	-0.118
	(2.949)	(0.889)	(1.566)	(0.617)
Political Exclusion	1.955**	-1.153	-3.535**	0.640**
	(0.980)	(0.973)	(1.544)	(0.311)
Number of Non-State Actors	0.348	0.0415	2.734**	-0.234
	(0.958)	(0.724)	(1.237)	(0.308)
Drought Overlap x Number of Non-State Actors	0.193	-15.64***	-1.114**	-0.0475
	(0.420)	(1.745)	(0.549)	(0.358)
Organizational Capacity	0.136	16.23***	0.101	-0.303
	(0.561)	(1.241)	(0.868)	(0.261)
Mobilizational Capacity	-0.448	0.156	0.341	-0.405
	(0.849)	(0.909)	(0.770)	(0.357)
Political Representation	0.706	2.240**	2.400**	0.720**
	(0.688)	(1.132)	(0.991)	(0.299)
External Support	-0.345	0.623	1.586	-0.961***
	(0.572)	(0.675)	(1.571)	(0.303)
Natural Resources	2.483**	-1.926**	-2.368**	0.0925
	(1.018)	(0.905)	(1.184)	(0.372)
Ethno-Linguistic Fractionalization	1.682	-3.946	0.310	-2.292**
	(2.161)	(3.277)	(5.711)	(1.074)
Regime Type	-1.746	-0.263	-17.59***	-1.043
	(1.185)	(0.705)	(1.090)	(0.693)
Ln GDP *per capita*	-0.185	-2.016**	0.667	0.0483
	(0.553)	(0.838)	(2.011)	(0.317)
Ln Population	0.194	-0.630	-0.485**	-0.288**
	(0.371)	(0.500)	(0.228)	(0.145)
Time Frame	-2.116**	3.967***	-1.154	-0.299
	(0.839)	(1.187)	(1.439)	(0.306)
Region	-1.526	-2.827***	0.795	0.292
	(1.157)	(0.922)	(0.934)	(0.583)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-16: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model III: Drought Overlap x Political Exclusion
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	13.27**	4.847	0.236	0.466
	(15.47)	(5.809)	(0.283)	(0.296)
Economic Structure	0.951*	0.824***	1.078	0.999
	(0.0251)	(0.0425)	(0.0586)	(0.0117)
Economic Discrimination	0.0711	2.446	33.77**	1.054
	(0.185)	(2.387)	(57.43)	(0.634)
Political Exclusion	15.10***	0.259	0.0408**	1.538
	(15.40)	(0.267)	(0.0632)	(0.476)
Drought Overlap x Political Exclusion	0.241	1.713	3.469	2.647
	(0.313)	(3.772)	(4.578)	(1.927)
Number of Non-State Actors	1.512	0.912	7.963**	0.768
	(0.916)	(0.740)	(7.787)	(0.248)
Organizational Capacity	1.133	1.615×10^{7}***	1.025	0.756
	(0.570)	(1.556×10^{7})	(0.988)	(0.193)
Mobilizational Capacity	0.566	1.257	1.914	0.701
	(0.490)	(1.196)	(1.911)	(0.252)
Political Representation	2.501	7.202*	7.514**	1.664
	(1.573)	(7.614)	(6.848)	(0.517)
External Support	0.806	1.841	3.681	0.368***
	(0.512)	(1.354)	(4.949)	(0.113)
Natural Resources	11.71**	0.157**	0.110**	1.155
	(11.96)	(0.146)	(0.107)	(0.433)
Ethno-Linguistic Fractionalization	2.645	0.0256	1.631	0.140**
	(6.090)	(0.0873)	(9.146)	(0.131)
Regime Type	0.161	0.668	2.57×10^{-7}***	0.344
	(0.185)	(0.490)	(2.94×10^{-7})	(0.229)
Ln GDP *per capita*	0.704	0.158*	1.730	1.165
	(0.401)	(0.164)	(3.096)	(0.374)
Ln Population	1.171	0.495	0.672	0.752**
	(0.455)	(0.273)	(0.189)	(0.107)
Time Frame	0.117***	60.54***	0.325	0.724
	(0.0933)	(71.07)	(0.419)	(0.219)
Region	0.252	0.0408***	1.869	1.136
	(0.326)	(0.0414)	(1.921)	(0.657)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-17: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model III: Drought Overlap x Political Exclusion
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	2.585**	1.578	-1.444	-0.763
	(1.166)	(1.199)	(1.199)	(0.635)
Economic Structure	-0.0506*	-0.193***	0.0748	-0.000657
	(0.0264)	(0.0516)	(0.0543)	(0.0117)
Economic Discrimination	-2.643	0.894	3.520**	0.0521
	(2.599)	(0.976)	(1.701)	(0.602)
Political Exclusion	2.715***	-1.349	-3.200**	0.431
	(1.020)	(1.031)	(1.551)	(0.310)
Drought Overlap x Political Exclusion	-1.422	0.538	1.244	0.974
	(1.298)	(2.201)	(1.320)	(0.728)
Number of Non-State Actors	0.413	-0.0926	2.075**	-0.264
	(0.606)	(0.812)	(0.978)	(0.322)
Organizational Capacity	0.125	16.60***	0.0248	-0.280
	(0.503)	(0.963)	(0.964)	(0.256)
Mobilizational Capacity	-0.569	0.229	0.649	-0.355
	(0.866)	(0.951)	(0.998)	(0.359)
Political Representation	0.917	1.974*	2.017**	0.509
	(0.629)	(1.057)	(0.911)	(0.311)
External Support	-0.216	0.610	1.303	-0.999***
	(0.635)	(0.735)	(1.344)	(0.307)
Natural Resources	2.460**	-1.852**	-2.208**	0.144
	(1.021)	(0.933)	(0.976)	(0.374)
Ethno-Linguistic Fractionalization	0.973	-3.665	0.489	-1.966**
	(2.303)	(3.411)	(5.608)	(0.934)
Regime Type	-1.824	-0.403	-15.18***	-1.066
	(1.147)	(0.734)	(1.146)	(0.666)
Ln GDP *per capita*	-0.351	-1.843*	0.548	0.153
	(0.569)	(1.035)	(1.789)	(0.321)
Ln Population	0.158	-0.704	-0.397	-0.285**
	(0.389)	(0.551)	(0.282)	(0.142)
Time Frame	-2.147***	4.103***	-1.125	-0.323
	(0.798)	(1.174)	(1.290)	(0.302)
Region	-1.380	-3.199***	0.625	0.127
	(1.294)	(1.013)	(1.028)	(0.578)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-18: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model IV: Drought Overlap x Economic Discrimination
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	2.943	7.493**	0.405	0.731
	(1.995)	(6.683)	(0.302)	(0.335)
Economic Structure	0.942*	0.832***	1.076	0.999
	(0.0335)	(0.0450)	(0.0534)	(0.0119)
Economic Discrimination	0	2.228	0.658	0.832
	(2.59×10^{-10})	(2.057)	(3.239)	(0.491)
Drought Overlap x Economic Discrimination	1.468×10^{10}	0	9,595	2,863
	(3.225×10^{11})	(0)	(57,246)	(22,992)
Political Exclusion	11.28*	0.303	0.0905***	1.890**
	(14.61)	(0.303)	(0.0820)	(0.559)
Number of Non-State Actors	3.500	0.953	4.703**	0.766
	(3.223)	(0.720)	(3.166)	(0.241)
Organizational Capacity	1.231	1.152×10^{7}***	0.797	0.685
	(0.699)	(1.296×10^{7})	(0.786)	(0.181)
Mobilizational Capacity	0.505	1.203	1.615	0.701
	(0.475)	(1.098)	(1.510)	(0.251)
Political Representation	1.807	8.016**	8.219**	2.091**
	(1.190)	(8.208)	(7.999)	(0.603)
External Support	0.780	1.770	3.263	0.356***
	(0.458)	(1.221)	(4.312)	(0.111)
Natural Resources	19.34***	0.152**	0.0867***	1.156
	(16.38)	(0.144)	(0.0821)	(0.433)
Ethno-Linguistic Fractionalization	10.44	0.0229	0.656	0.107**
	(21.09)	(0.0751)	(3.464)	(0.101)
Regime Type	0.0724*	0.748	2.09×10^{-7}***	0.368
	(0.103)	(0.541)	(2.57×10^{-7})	(0.251)
Ln GDP *per capita*	0.933	0.142**	1.636	1.061
	(0.602)	(0.112)	(2.925)	(0.332)
Ln Population	1.247	0.521	0.663	0.764*
	(0.462)	(0.274)	(0.167)	(0.109)
Time Frame	0.0935**	52.52***	0.295	0.695
	(0.0943)	(60.70)	(0.376)	(0.222)
Region	0.0667	0.0545***	2.251	1.339
	(0.116)	(0.0469)	(2.484)	(0.762)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-19: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Model IV: Drought Overlap x Economic Discrimination
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	1.079	2.014**	-0.903	-0.313
	(0.678)	(0.892)	(0.746)	(0.459)
Economic Structure	-0.0601*	-0.184***	0.0734	-0.000831
	(0.0356)	(0.0541)	(0.0496)	(0.0119)
Economic Discrimination	-25.17	0.801	-0.418	-0.184
	(22.19)	(0.923)	(4.920)	(0.590)
Drought Overlap x Economic Discrimination	23.41	-69.64	9.169	7.960
	(21.98)	(55.03)	(5.966)	(8.031)
Political Exclusion	2.423*	-1.195	-2.403***	0.636**
	(1.295)	(1.002)	(0.907)	(0.296)
Number of Non-State Actors	1.253	-0.0480	1.548**	-0.266
	(0.921)	(0.755)	(0.673)	(0.315)
Organizational Capacity	0.208	16.26***	-0.226	-0.378
	(0.568)	(1.125)	(0.986)	(0.264)
Mobilizational Capacity	-0.682	0.185	0.479	-0.355
	(0.939)	(0.913)	(0.935)	(0.359)
Political Representation	0.592	2.081**	2.106**	0.738**
	(0.659)	(1.024)	(0.973)	(0.288)
External Support	-0.249	0.571	1.183	-1.033***
	(0.587)	(0.690)	(1.322)	(0.311)
Natural Resources	2.962***	-1.884**	-2.445***	0.145
	(0.847)	(0.947)	(0.947)	(0.374)
Ethno-Linguistic Fractionalization	2.345	-3.777	-0.421	-2.233**
	(2.021)	(3.280)	(5.278)	(0.941)
Regime Type	-2.626*	-0.291	-15.38***	-1.000
	(1.416)	(0.724)	(1.228)	(0.681)
Ln GDP *per capita*	-0.0695	-1.955**	0.492	0.0591
	(0.645)	(0.788)	(1.788)	(0.313)
Ln Population	0.221	-0.653	-0.411	-0.269*
	(0.370)	(0.526)	(0.252)	(0.142)
Time Frame	-2.370**	3.961***	-1.220	-0.364
	(1.009)	(1.156)	(1.274)	(0.319)
Region	-2.708	-2.910***	0.812	0.292
	(1.737)	(0.862)	(1.103)	(0.569)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-20: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Full Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	61.11	6.094×10^{14}***	0.00190	0.264
	(250.4)	(6.829×10^{15})	(0.00755)	(0.561)
Economic Structure	0.944*	0.727	1.067**	0.998
	(0.0319)	(0.143)	(0.0325)	(0.0140)
Drought Overlap x Economic Structure	0.943	0.281**	1.366*	1.053
	(0.0920)	(0.141)	(0.241)	(0.0712)
Economic Discrimination	0	0.909	10.12	0.893
	(2.13×10^{-10})	(1.131)	(14.33)	(0.525)
Drought Overlap x Economic Discrimination	2.320×10^{11}	0***	544,706	72,989
	(5.193×10^{12})	(0)	(6.059×10^{6})	(530,277)
Political Exclusion	70.30**	0.975	0.0188*	1.613
	(149.0)	(1.405)	(0.0390)	(0.502)
Drought Overlap x Political Exclusion	0.0434	0.00124	0.167	2.815
	(0.108)	(0.00812)	(0.260)	(2.134)
Number of Non-State Actors	2.225	0.674	27.90*	0.836
	(2.299)	(0.541)	(53.11)	(0.260)
Drought Overlap x Number of Non-State Actors	1.390	0.411	0.0557*	0.490
	(0.615)	(0.750)	(0.0835)	(0.250)
Organizational Capacity	1.079	9.951×10^{9}***	0.531	0.734
	(0.577)	(2.103×10^{10})	(0.678)	(0.192)
Mobilizational Capacity	0.385	0.272	2.028	0.649
	(0.499)	(0.492)	(1.816)	(0.249)
Political Representation	2.437	30.07**	55.46	1.942**
	(1.432)	(44.26)	(139.4)	(0.591)
External Support	1.070	4.507	1.849	0.363***
	(0.965)	(5.367)	(2.295)	(0.128)
Natural Resources	16.40***	2.287	0.109***	1.093
	(15.89)	(1.184)	(0.0921)	(0.404)
Ethno-Linguistic Fractionalization	1.750	0.00273	0.159	0.0947**
	(3.829)	(0.0115)	(0.360)	(0.100)
Regime Type	0.146	0.997	1.30×10^{-8}***	0.314*
	(0.196)	(0.878)	(1.38×10^{-8})	(0.217)
Ln GDP *per capita*	0.486	0.0973	1.528	1.066
	(0.466)	(0.191)	(1.757)	(0.367)
Ln Population	0.992	0.00945**	0.352**	0.771
	(0.634)	(0.0193)	(0.187)	(0.122)
Time Frame	0.0740***	41,717**	0.0637	0.753
	(0.0666)	(224,593)	(0.128)	(0.247)
Region	0.0580	0.00211***	6.157	1.281
	(0.107)	(0.00496)	(11.72)	(0.765)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table D-21: Robustness Check with Drought Overlap for Ethnic & Non-Ethnic Civil Wars
Full Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Overlap	4.113	34.04***	-6.265	-1.331
	(4.097)	(11.21)	(3.969)	(2.124)
Economic Structure	-0.0582*	-0.319	0.0653**	-0.00215
	(0.0338)	(0.196)	(0.0305)	(0.0140)
Drought Overlap x Economic Structure	-0.0588	-1.268**	0.312*	0.0514
	(0.0975)	(0.501)	(0.177)	(0.0677)
Economic Discrimination	-25.27	-0.0958	2.314	-0.113
	(20.15)	(1.245)	(1.416)	(0.588)
Drought Overlap x Economic Discrimination	26.17	-658.4***	13.21	11.20
	(22.38)	(135.5)	(11.12)	(7.265)
Political Exclusion	4.253**	-0.0256	-3.971*	0.478
	(2.119)	(1.441)	(2.071)	(0.311)
Drought Overlap x Political Exclusion	-3.138	-6.689	-1.790	1.035
	(2.498)	(6.525)	(1.557)	(0.758)
Number of Non-State Actors	0.800	-0.394	3.329*	-0.179
	(1.033)	(0.802)	(1.904)	(0.312)
Drought Overlap x Number of Non-State Actors	0.329	-0.888	-2.888*	-0.714
	(0.442)	(1.823)	(1.500)	(0.511)
Organizational Capacity	0.0765	23.02***	-0.633	-0.309
	(0.534)	(2.114)	(1.276)	(0.261)
Mobilizational Capacity	-0.954	-1.301	0.707	-0.433
	(1.296)	(1.807)	(0.896)	(0.385)
Political Representation	0.891	3.404**	4.016	0.663**
	(0.588)	(1.472)	(2.513)	(0.304)
External Support	0.0677	1.506	0.615	-1.014***
	(0.902)	(1.191)	(1.242)	(0.354)
Natural Resources	2.797***	0.827	-2.212***	0.0889
	(0.969)	(0.518)	(0.842)	(0.370)
Ethno-Linguistic Fractionalization	0.560	-5.902	-1.836	-2.357**
	(2.188)	(4.219)	(2.259)	(1.060)
Regime Type	-1.922	-0.00299	-18.16***	-1.159*
	(1.336)	(0.880)	(1.059)	(0.693)
Ln GDP *per capita*	-0.722	-2.330	0.424	0.0635
	(0.958)	(1.966)	(1.149)	(0.344)
Ln Population	-0.00810	-4.661**	-1.043**	-0.260
	(0.639)	(2.036)	(0.530)	(0.158)
Time Frame	-2.604***	10.64**	-2.753	-0.284
	(0.900)	(5.384)	(2.015)	(0.329)
Region	-2.848	-6.161***	1.818	0.247
	(1.845)	(2.352)	(1.904)	(0.598)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix E
ROBUSTNESS CHECK OF MODEL SPECIFICATIONS FOR NON-ETHNIC CIVIL WARS

Table E-22: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Base Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	5.659**	7.445**	0.541	1.075
	(3.941)	(7.327)	(0.429)	(0.520)
Economic Structure	0.953*	0.827***	1.073	0.998
	(0.0273)	(0.0418)	(0.0517)	(0.0117)
Economic Discrimination	0.0370	2.394	28.70**	0.863
	(0.112)	(2.239)	(45.27)	(0.521)
Political Exclusion	7.110*	0.273	0.0964***	1.924**
	(7.318)	(0.269)	(0.0821)	(0.579)
Number of Non-State Actors	1.694	0.880	4.365**	0.716
	(1.080)	(0.697)	(3.132)	(0.225)
Organizational Capacity	1.147	7.995×10^{6}***	0.934	0.740
	(0.633)	(8.482×10^{6})	(0.878)	(0.195)
Mobilizational Capacity	0.664	1.247	1.823	0.736
	(0.546)	(1.126)	(1.674)	(0.258)
Political Representation	2.016	8.010**	7.779**	2.041***
	(1.378)	(8.139)	(6.707)	(0.562)
External Support	0.678	2.016	3.390	0.363***
	(0.410)	(1.486)	(4.275)	(0.110)
Natural Resources	12.52**	0.153**	0.104**	1.187
	(12.83)	(0.141)	(0.100)	(0.428)
Ethno-Linguistic Fractionalization	4.126	0.0189	0.696	0.115**
	(9.262)	(0.0646)	(3.245)	(0.110)
Regime Type	0.168	0.757	8.82×10^{-8}***	0.388
	(0.193)	(0.536)	(1.17×10^{-7})	(0.264)
Ln GDP *per capita*	0.825	0.142**	1.496	1.090
	(0.497)	(0.113)	(2.496)	(0.327)
Ln Population	1.204	0.489	0.640*	0.743**
	(0.463)	(0.242)	(0.146)	(0.108)
Time Frame	0.134***	54.59***	0.306	0.732
	(0.103)	(62.59)	(0.388)	(0.227)
Region	0.239	0.0531***	2.034	1.406
	(0.285)	(0.0426)	(2.050)	(0.807)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-23: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Base Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.733**	2.008**	-0.615	0.0725
	(0.696)	(0.984)	(0.792)	(0.483)
Economic Structure	-0.0482*	-0.190***	0.0709	-0.00156
	(0.0286)	(0.0505)	(0.0482)	(0.0117)
Economic Discrimination	-3.298	0.873	3.357**	-0.147
	(3.029)	(0.935)	(1.577)	(0.603)
Political Exclusion	1.961*	-1.297	-2.340***	0.654**
	(1.029)	(0.985)	(0.852)	(0.301)
Number of Non-State Actors	0.527	-0.127	1.474**	-0.334
	(0.638)	(0.792)	(0.718)	(0.315)
Organizational Capacity	0.137	15.89***	-0.0685	-0.301
	(0.552)	(1.061)	(0.940)	(0.264)
Mobilizational Capacity	-0.410	0.221	0.601	-0.306
	(0.823)	(0.903)	(0.918)	(0.350)
Political Representation	0.701	2.081**	2.051**	0.713***
	(0.683)	(1.016)	(0.862)	(0.275)
External Support	-0.389	0.701	1.221	-1.015***
	(0.605)	(0.737)	(1.261)	(0.303)
Natural Resources	2.527**	-1.875**	-2.263**	0.171
	(1.025)	(0.917)	(0.964)	(0.360)
Ethno-Linguistic Fractionalization	1.417	-3.969	-0.363	-2.161**
	(2.245)	(3.417)	(4.665)	(0.952)
Regime Type	-1.787	-0.278	-16.24***	-0.947
	(1.152)	(0.708)	(1.328)	(0.680)
Ln GDP *per capita*	-0.192	-1.950**	0.403	0.0866
	(0.602)	(0.795)	(1.668)	(0.300)
Ln Population	0.186	-0.715	-0.447*	-0.296**
	(0.385)	(0.493)	(0.228)	(0.146)
Time Frame	-2.008***	4.000***	-1.185	-0.312
	(0.767)	(1.146)	(1.269)	(0.310)
Region	-1.432	-2.936***	0.710	0.341
	(1.192)	(0.802)	(1.008)	(0.574)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table E-24: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model I: Drought Ratio x Economic Structure
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	31.29*	186,458**	0.000144**	1.091
	(58.33)	(991,996)	(0.000594)	(2.012)
Economic Structure	0.967	0.812*	1.049	0.998
	(0.0251)	(0.0936)	(0.0395)	(0.0125)
Drought Ratio x Economic Structure	0.938	0.637**	1.224**	1.000
	(0.0697)	(0.143)	(0.101)	(0.0432)
Economic Discrimination	0.0305	2.875	64.03**	0.862
	(0.0920)	(2.652)	(106.6)	(0.528)
Political Exclusion	6.267*	0.240*	0.0980**	1.925**
	(6.344)	(0.201)	(0.115)	(0.579)
Number of Non-State Actors	1.947	1.252	3.378	0.716
	(1.395)	(1.193)	(2.505)	(0.225)
Organizational Capacity	1.118	3.700×10^{7}***	0.672	0.740
	(0.679)	(8.665×10^{7})	(0.550)	(0.195)
Mobilizational Capacity	0.604	1.023	2.709	0.736
	(0.527)	(0.866)	(3.338)	(0.254)
Political Representation	1.765	22.21**	12.70***	2.042**
	(1.101)	(28.18)	(11.00)	(0.593)
External Support	0.826	3.699	2.926	0.362***
	(0.626)	(4.962)	(2.764)	(0.112)
Natural Resources	13.85**	0.397	0.124**	1.187
	(14.93)	(0.284)	(0.127)	(0.428)
Ethno-Linguistic Fractionalization	2.965	0.0344	0.436	0.115**
	(6.593)	(0.122)	(1.787)	(0.120)
Regime Type	0.205	0.770	1.22×10^{-7}***	0.388
	(0.240)	(0.551)	(1.97×10^{-7})	(0.264)
Ln GDP *per capita*	0.733	0.217	1.300	1.090
	(0.490)	(0.203)	(1.822)	(0.324)
Ln Population	1.050	0.0922	0.504***	0.744*
	(0.480)	(0.141)	(0.103)	(0.114)
Time Frame	0.113***	1,554**	0.175	0.732
	(0.0874)	(5,206)	(0.208)	(0.227)
Region	0.263	0.00564**	3.005	1.408
	(0.331)	(0.0148)	(3.077)	(0.848)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-25: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model I: Drought Ratio x Economic Structure
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.443*	12.14**	-8.845**	0.0872
	(1.864)	(5.320)	(4.124)	(1.844)
Economic Structure	-0.0338	-0.208*	0.0475	-0.00152
	(0.0260)	(0.115)	(0.0377)	(0.0125)
Drought Ratio x Economic Structure	-0.0644	-0.452**	0.202**	-0.000382
	(0.0744)	(0.224)	(0.0829)	(0.0432)
Economic Discrimination	-3.489	1.056	4.159**	-0.148
	(3.011)	(0.922)	(1.664)	(0.612)
Political Exclusion	1.835*	-1.428*	-2.323**	0.655**
	(1.012)	(0.839)	(1.176)	(0.301)
Number of Non-State Actors	0.666	0.225	1.217	-0.334
	(0.716)	(0.953)	(0.742)	(0.314)
Organizational Capacity	0.112	17.43***	-0.397	-0.301
	(0.607)	(2.342)	(0.819)	(0.263)
Mobilizational Capacity	-0.504	0.0225	0.997	-0.307
	(0.873)	(0.847)	(1.232)	(0.345)
Political Representation	0.568	3.100**	2.541***	0.714**
	(0.624)	(1.269)	(0.867)	(0.290)
External Support	-0.191	1.308	1.074	-1.015***
	(0.758)	(1.341)	(0.945)	(0.310)
Natural Resources	2.628**	-0.924	-2.091**	0.172
	(1.078)	(0.715)	(1.026)	(0.361)
Ethno-Linguistic Fractionalization	1.087	-3.371	-0.830	-2.164**
	(2.224)	(3.544)	(4.100)	(1.043)
Regime Type	-1.584	-0.261	-15.92***	-0.947
	(1.172)	(0.715)	(1.618)	(0.681)
Ln GDP *per capita*	-0.311	-1.527	0.262	0.0859
	(0.669)	(0.933)	(1.402)	(0.298)
Ln Population	0.0484	-2.383	-0.686***	-0.296*
	(0.458)	(1.524)	(0.205)	(0.153)
Time Frame	-2.180***	7.349**	-1.741	-0.312
	(0.774)	(3.350)	(1.187)	(0.311)
Region	-1.335	-5.177**	1.100	0.342
	(1.256)	(2.622)	(1.024)	(0.602)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-26: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model II: Drought Ratio x Number of Non-State Actors
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.494	1.527×10^{31}	5.796	1.898
	(3.325)	(0)	(8.858)	(1.771)
Economic Structure	0.952*	0.845***	1.101	0.999
	(0.0269)	(0.0472)	(0.0762)	(0.0120)
Economic Discrimination	0.0259	2.297	20.26**	0.808
	(0.0813)	(2.003)	(30.33)	(0.497)
Political Exclusion	7.482**	0.306	0.0315**	2.016**
	(7.578)	(0.290)	(0.0439)	(0.617)
Number of Non-State Actors	1.285	0.977	14.13**	0.744
	(1.323)	(0.710)	(16.03)	(0.228)
Drought Ratio x Number of Non-State Actors	1.327	0***	0.326**	0.777
	(0.681)	(0)	(0.173)	(0.283)
Organizational Capacity	1.147	7.298×10^{10}***	1.238	0.756
	(0.646)	(8.920×10^{10})	(1.061)	(0.198)
Mobilizational Capacity	0.725	1.179	1.446	0.688
	(0.656)	(1.066)	(1.140)	(0.245)
Political Representation	1.940	9.642**	11.73**	2.202***
	(1.384)	(11.00)	(11.66)	(0.615)
External Support	0.666	2.105	4.831	0.362***
	(0.397)	(1.531)	(7.359)	(0.112)
Natural Resources	11.75**	0.152**	0.0963**	1.159
	(12.55)	(0.135)	(0.108)	(0.415)
Ethno-Linguistic Fractionalization	4.562	0.0159	1.031	0.0825**
	(10.21)	(0.0531)	(5.695)	(0.0944)
Regime Type	0.182	0.827	3.14×10^{-8}***	0.370
	(0.220)	(0.573)	(3.23×10^{-8})	(0.259)
Ln GDP *per capita*	0.848	0.138**	1.937	1.019
	(0.490)	(0.115)	(3.889)	(0.328)
Ln Population	1.213	0.511	0.605**	0.753*
	(0.466)	(0.256)	(0.145)	(0.110)
Time Frame	0.138***	44.96***	0.317	0.749
	(0.104)	(52.68)	(0.474)	(0.233)
Region	0.231	0.0716***	2.272	1.601
	(0.270)	(0.0697)	(2.132)	(1.007)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-27: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model II: Drought Ratio x Number of Non-State Actors
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.251	71.80	1.757	0.641
	(0.952)	(0)	(1.528)	(0.933)
Economic Structure	-0.0497*	-0.169***	0.0963	-0.000765
	(0.0283)	(0.0559)	(0.0692)	(0.0120)
Economic Discrimination	-3.653	0.832	3.008**	-0.213
	(3.137)	(0.872)	(1.498)	(0.615)
Political Exclusion	2.012**	-1.185	-3.459**	0.701**
	(1.013)	(0.949)	(1.396)	(0.306)
Number of Non-State Actors	0.251	-0.0234	2.648**	-0.296
	(1.029)	(0.726)	(1.134)	(0.307)
Drought Ratio x Number of Non-State Actors	0.283	-69.45***	-1.119**	-0.252
	(0.513)	(0.982)	(0.530)	(0.364)
Organizational Capacity	0.137	25.01***	0.214	-0.280
	(0.563)	(1.222)	(0.857)	(0.262)
Mobilizational Capacity	-0.322	0.165	0.369	-0.373
	(0.905)	(0.904)	(0.789)	(0.356)
Political Representation	0.663	2.266**	2.462**	0.789***
	(0.713)	(1.141)	(0.994)	(0.279)
External Support	-0.406	0.744	1.575	-1.015***
	(0.597)	(0.727)	(1.523)	(0.309)
Natural Resources	2.464**	-1.885**	-2.341**	0.147
	(1.068)	(0.892)	(1.126)	(0.358)
Ethno-Linguistic Fractionalization	1.518	-4.142	0.0309	-2.496**
	(2.238)	(3.342)	(5.522)	(1.144)
Regime Type	-1.705	-0.190	-17.28***	-0.995
	(1.208)	(0.692)	(1.029)	(0.700)
Ln GDP *per capita*	-0.165	-1.977**	0.661	0.0189
	(0.578)	(0.830)	(2.007)	(0.322)
Ln Population	0.193	-0.672	-0.503**	-0.283*
	(0.384)	(0.502)	(0.240)	(0.146)
Time Frame	-1.982***	3.806***	-1.148	-0.289
	(0.754)	(1.172)	(1.495)	(0.311)
Region	-1.467	-2.636***	0.820	0.471
	(1.170)	(0.973)	(0.939)	(0.629)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-28: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model III: Drought Ratio x Political Exclusion
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	15.73**	5.972	0.181*	0.734
	(19.93)	(7.678)	(0.183)	(0.589)
Economic Structure	0.948*	0.828***	1.084	0.999
	(0.0267)	(0.0411)	(0.0606)	(0.0119)
Economic Discrimination	0.0772	2.494	33.21**	0.934
	(0.200)	(2.399)	(55.87)	(0.553)
Political Exclusion	14.95***	0.249	0.0322**	1.738*
	(15.09)	(0.254)	(0.0491)	(0.539)
Drought Ratio x Political Exclusion	0.218	1.889	5.650	1.798
	(0.318)	(4.202)	(7.840)	(1.605)
Number of Non-State Actors	1.469	0.880	9.659**	0.721
	(0.899)	(0.705)	(9.293)	(0.231)
Organizational Capacity	1.130	5.157×10^{9}***	1.272	0.758
	(0.575)	(5.474×10^{9})	(1.102)	(0.201)
Mobilizational Capacity	0.610	1.329	2.000	0.743
	(0.526)	(1.278)	(2.003)	(0.263)
Political Representation	2.409	7.580*	8.608**	1.821*
	(1.540)	(7.941)	(8.063)	(0.593)
External Support	0.821	1.967	4.168	0.360***
	(0.542)	(1.470)	(5.755)	(0.109)
Natural Resources	11.35**	0.164**	0.113**	1.209
	(11.98)	(0.151)	(0.106)	(0.437)
Ethno-Linguistic Fractionalization	1.969	0.0229	1.436	0.136**
	(4.899)	(0.0788)	(7.769)	(0.128)
Regime Type	0.171	0.725	6.51×10^{-11}***	0.375
	(0.199)	(0.525)	(7.17×10^{-11})	(0.250)
Ln GDP *per capita*	0.660	0.163*	1.826	1.167
	(0.417)	(0.168)	(3.249)	(0.370)
Ln Population	1.146	0.474	0.656	0.749**
	(0.464)	(0.253)	(0.187)	(0.108)
Time Frame	0.126***	56.65***	0.325	0.730
	(0.0975)	(65.20)	(0.431)	(0.225)
Region	0.287	0.0461***	1.871	1.227
	(0.386)	(0.0499)	(1.930)	(0.774)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-29: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model III: Drought Ratio x Political Exclusion
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	2.756**	1.787	-1.712*	-0.309
	(1.267)	(1.286)	(1.015)	(0.802)
Economic Structure	-0.0538*	-0.189***	0.0803	-0.000660
	(0.0282)	(0.0497)	(0.0559)	(0.0119)
Economic Discrimination	-2.561	0.914	3.503**	-0.0688
	(2.588)	(0.962)	(1.683)	(0.592)
Political Exclusion	2.705***	-1.392	-3.435**	0.553*
	(1.009)	(1.023)	(1.525)	(0.310)
Drought Ratio x Political Exclusion	-1.522	0.636	1.732	0.586
	(1.458)	(2.225)	(1.388)	(0.893)
Number of Non-State Actors	0.385	-0.127	2.268**	-0.328
	(0.612)	(0.801)	(0.962)	(0.320)
Organizational Capacity	0.123	22.36***	0.241	-0.277
	(0.509)	(1.061)	(0.866)	(0.265)
Mobilizational Capacity	-0.495	0.284	0.693	-0.297
	(0.864)	(0.961)	(1.001)	(0.354)
Political Representation	0.879	2.025*	2.153**	0.600*
	(0.639)	(1.048)	(0.937)	(0.325)
External Support	-0.197	0.677	1.427	-1.023***
	(0.660)	(0.747)	(1.381)	(0.303)
Natural Resources	2.429**	-1.810**	-2.181**	0.190
	(1.056)	(0.923)	(0.942)	(0.362)
Ethno-Linguistic Fractionalization	0.677	-3.777	0.362	-1.992**
	(2.489)	(3.443)	(5.411)	(0.935)
Regime Type	-1.768	-0.321	-23.46***	-0.980
	(1.164)	(0.724)	(1.102)	(0.666)
Ln GDP *per capita*	-0.415	-1.817*	0.602	0.154
	(0.632)	(1.031)	(1.779)	(0.317)
Ln Population	0.136	-0.747	-0.422	-0.289**
	(0.405)	(0.535)	(0.285)	(0.145)
Time Frame	-2.068***	4.037***	-1.124	-0.315
	(0.770)	(1.151)	(1.327)	(0.308)
Region	-1.247	-3.077***	0.626	0.205
	(1.344)	(1.083)	(1.032)	(0.630)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-30: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model IV: Drought Ratio x Economic Discrimination
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.076	9.246**	0.442	0.951
	(2.218)	(8.710)	(0.356)	(0.459)
Economic Structure	0.939*	0.835***	1.077	0.999
	(0.0340)	(0.0445)	(0.0523)	(0.0120)
Economic Discrimination	0	2.284	5.640	0.802
	(0)	(2.087)	(12.84)	(0.467)
Drought Ratio x Economic Discrimination	4.313×10^{11}	0	1,034	1,152
	(9.158×10^{12})	(0)	(7,497)	(9,291)
Political Exclusion	12.52*	0.294	0.0964***	1.946**
	(17.06)	(0.291)	(0.0816)	(0.570)
Number of Non-State Actors	3.789	0.882	4.524**	0.708
	(3.458)	(0.671)	(3.128)	(0.225)
Organizational Capacity	1.217	1.133×10^{7}***	0.863	0.692
	(0.677)	(1.323×10^{7})	(0.801)	(0.184)
Mobilizational Capacity	0.497	1.221	1.698	0.755
	(0.467)	(1.114)	(1.569)	(0.271)
Political Representation	1.864	8.236**	8.712**	2.111***
	(1.214)	(8.412)	(8.756)	(0.585)
External Support	0.708	1.979	3.311	0.342***
	(0.413)	(1.408)	(4.291)	(0.107)
Natural Resources	21.07***	0.159*	0.0911***	1.232
	(17.80)	(0.151)	(0.0820)	(0.449)
Ethno-Linguistic Fractionalization	14.24	0.0190	0.531	0.115**
	(28.55)	(0.0625)	(2.659)	(0.109)
Regime Type	0.0542**	0.812	4.07×10^{-7}***	0.394
	(0.0674)	(0.581)	(4.01×10^{-7})	(0.268)
Ln GDP *per capita*	1.049	0.146**	1.585	1.096
	(0.656)	(0.114)	(2.748)	(0.336)
Ln Population	1.285	0.494	0.644*	0.758*
	(0.454)	(0.260)	(0.156)	(0.109)
Time Frame	0.107**	46.02***	0.290	0.698
	(0.100)	(51.87)	(0.384)	(0.225)
Region	0.0550*	0.0647***	2.235	1.398
	(0.0940)	(0.0585)	(2.472)	(0.810)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-31: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Model IV: Drought Ratio x Economic Discrimination
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.124	2.224**	-0.816	-0.0498
	(0.721)	(0.942)	(0.806)	(0.483)
Economic Structure	-0.0626*	-0.180***	0.0737	-0.000678
	(0.0362)	(0.0533)	(0.0486)	(0.0120)
Economic Discrimination	-27.07	0.826	1.730	-0.221
	(21.02)	(0.914)	(2.276)	(0.582)
Drought Ratio x Economic Discrimination	26.79	-60.20	6.941	7.049
	(21.23)	(57.35)	(7.252)	(8.067)
Political Exclusion	2.527*	-1.223	-2.340***	0.666**
	(1.363)	(0.989)	(0.847)	(0.293)
Number of Non-State Actors	1.332	-0.126	1.509**	-0.346
	(0.913)	(0.761)	(0.691)	(0.318)
Organizational Capacity	0.196	16.24***	-0.148	-0.369
	(0.557)	(1.167)	(0.929)	(0.266)
Mobilizational Capacity	-0.699	0.200	0.530	-0.281
	(0.940)	(0.912)	(0.924)	(0.359)
Political Representation	0.623	2.109**	2.165**	0.747***
	(0.651)	(1.021)	(1.005)	(0.277)
External Support	-0.346	0.682	1.197	-1.072***
	(0.583)	(0.712)	(1.296)	(0.311)
Natural Resources	3.048***	-1.837*	-2.396***	0.209
	(0.845)	(0.945)	(0.900)	(0.364)
Ethno-Linguistic Fractionalization	2.656	-3.962	-0.633	-2.165**
	(2.004)	(3.284)	(5.006)	(0.952)
Regime Type	-2.915**	-0.208	-14.72***	-0.930
	(1.244)	(0.716)	(0.986)	(0.679)
Ln GDP *per capita*	0.0479	-1.922**	0.461	0.0914
	(0.625)	(0.779)	(1.733)	(0.307)
Ln Population	0.250	-0.705	-0.440*	-0.277*
	(0.354)	(0.526)	(0.242)	(0.144)
Time Frame	-2.232**	3.829***	-1.239	-0.359
	(0.934)	(1.127)	(1.325)	(0.322)
Region	-2.900*	-2.739***	0.804	0.335
	(1.708)	(0.904)	(1.106)	(0.580)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-32: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Full Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	89.74	1.364×10^{20}***	0.00128*	0.647
	(448.2)	(1.585×10^{21})	(0.00509)	(1.559)
Economic Structure	0.944*	0.741	1.069**	1.000
	(0.0312)	(0.140)	(0.0318)	(0.0143)
Drought Ratio x Economic Structure	0.934	0.219***	1.372*	1.036
	(0.104)	(0.120)	(0.244)	(0.0748)
Economic Discrimination	0	0.869	22.56**	0.788
	(1.91×10^{-10})	(1.091)	(31.43)	(0.464)
Drought Ratio x Economic Discrimination	1.058×10^{12}	0***	111,706	71,623
	(2.332×10^{13})	(0)	(1.225×10^{6})	(510,246)
Political Exclusion	72.53*	0.945	0.0172**	1.800*
	(159.9)	(1.352)	(0.0330)	(0.568)
Drought Ratio x Political Exclusion	0.0371	8.77×10^{-5}	0.233	2.465
	(0.106)	(0.000599)	(0.428)	(2.177)
Number of Non-State Actors	2.154	0.455	30.79**	0.802
	(2.173)	(0.370)	(53.64)	(0.258)
Drought Ratio x Number of Non-State Actors	1.407	0.00387*	0.0560**	0.483
	(0.747)	(0.0119)	(0.0818)	(0.250)
Organizational Capacity	1.134	5.752×10^{10}***	0.607	0.741
	(0.580)	(1.498×10^{11})	(0.770)	(0.199)
Mobilizational Capacity	0.374	0.255	2.118	0.664
	(0.491)	(0.468)	(1.953)	(0.254)
Political Representation	2.445	38.14**	58.63	2.104**
	(1.502)	(59.01)	(148.8)	(0.666)
External Support	1.062	7.643	2.019	0.347***
	(1.192)	(10.33)	(2.598)	(0.123)
Natural Resources	16.58***	3.307**	0.116***	1.154
	(16.49)	(1.967)	(0.0960)	(0.420)
Ethno-Linguistic Fractionalization	1.621	0.00118	0.139	0.0836**
	(4.845)	(0.00532)	(0.312)	(0.0904)
Regime Type	0.128	1.560	1.85×10^{-8}***	0.324
	(0.182)	(1.525)	(2.46×10^{-8})	(0.226)
Ln GDP *per capita*	0.505	0.118	1.509	1.067
	(0.592)	(0.216)	(1.736)	(0.354)
Ln Population	0.927	0.00634**	0.338**	0.782
	(0.707)	(0.0129)	(0.183)	(0.123)
Time Frame	0.0885***	27,784**	0.0626	0.770
	(0.0776)	(142,823)	(0.124)	(0.258)
Region	0.0616	0.00442**	5.991	1.366
	(0.110)	(0.00983)	(11.57)	(0.882)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table E-33: Robustness Check with Drought Ratio for Non-Ethnic Civil Wars
Full Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	4.497	46.36***	-6.661*	-0.436
	(4.995)	(11.62)	(3.980)	(2.410)
Economic Structure	-0.0579*	-0.300	0.0668**	-0.000382
	(0.0331)	(0.188)	(0.0298)	(0.0143)
Drought Ratio x Economic Structure	-0.0687	-1.520***	0.316*	0.0349
	(0.111)	(0.551)	(0.178)	(0.0723)
Economic Discrimination	-25.35	-0.141	3.116**	-0.239
	(19.57)	(1.256)	(1.393)	(0.589)
Drought Ratio x Economic Discrimination	27.69	-976.1***	11.62	11.18
	(22.04)	(203.8)	(10.96)	(7.124)
Political Exclusion	4.284*	-0.0570	-4.065**	0.588*
	(2.204)	(1.431)	(1.924)	(0.316)
Drought Ratio x Political Exclusion	-3.295	-9.341	-1.456	0.902
	(2.851)	(6.830)	(1.834)	(0.883)
Number of Non-State Actors	0.767	-0.788	3.427**	-0.221
	(1.009)	(0.812)	(1.742)	(0.322)
Drought Ratio x Number of Non-State Actors	0.341	-5.555*	-2.882**	-0.727
	(0.531)	(3.082)	(1.460)	(0.517)
Organizational Capacity	0.126	24.78***	-0.500	-0.300
	(0.511)	(2.605)	(1.270)	(0.269)
Mobilizational Capacity	-0.984	-1.367	0.750	-0.410
	(1.313)	(1.835)	(0.922)	(0.382)
Political Representation	0.894	3.641**	4.071	0.744**
	(0.614)	(1.547)	(2.538)	(0.317)
External Support	0.0604	2.034	0.703	-1.057***
	(1.123)	(1.352)	(1.287)	(0.355)
Natural Resources	2.808***	1.196**	-2.151***	0.143
	(0.995)	(0.595)	(0.825)	(0.364)
Ethno-Linguistic Fractionalization	0.483	-6.739	-1.973	-2.482**
	(2.988)	(4.495)	(2.247)	(1.081)
Regime Type	-2.057	0.444	-17.81***	-1.126
	(1.425)	(0.978)	(1.331)	(0.695)
Ln GDP *per capita*	-0.683	-2.141	0.411	0.0652
	(1.172)	(1.836)	(1.151)	(0.332)
Ln Population	-0.0758	-5.060**	-1.085**	-0.246
	(0.763)	(2.027)	(0.543)	(0.157)
Time Frame	-2.425***	10.23**	-2.771	-0.261
	(0.878)	(5.141)	(1.987)	(0.335)
Region	-2.786	-5.421**	1.790	0.312
	(1.788)	(2.223)	(1.932)	(0.646)
Number of Conflicts	110	110	110	98
Number of Observations	14	14	11	68
Observations	1067	1067	1067	1067

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix F
ROBUSTNESS CHECK OF MODEL SPECIFICATIONS FOR NON-ETHNIC CIVIL WARS WITHOUT MEDIATOR VARIABLES

Table F-34: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Base Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	6.372***	6.453**	0.422	1.255
	(4.125)	(5.763)	(0.371)	(0.505)
Economic Structure	0.960**	0.894***	1.064**	0.996
	(0.0197)	(0.0380)	(0.0269)	(0.0106)
Economic Discrimination	0.0156*	1.499	36.70**	0.902
	(0.0372)	(1.752)	(58.14)	(0.538)
Political Exclusion	6.762*	0.338	0.100**	1.939**
	(6.719)	(0.315)	(0.0943)	(0.562)
Number of Non-State Actors	1.567	0.573	4.513*	0.668
	(0.984)	(0.445)	(4.030)	(0.195)
Organizational Capacity	1.120	3.152×10^{-7}***	0.989	0.701
	(0.625)	(3.346×10^{7})	(1.094)	(0.181)
Political Representation	1.792	4.629**	7.237**	2.039**
	(1.193)	(3.531)	(6.134)	(0.569)
External Support	0.657	1.540	3.035	0.366***
	(0.381)	(0.882)	(4.410)	(0.111)
Natural Resources	13.54***	0.265	0.0948**	1.259
	(13.61)	(0.249)	(0.106)	(0.433)
Ethno-Linguistic Fractionalization	7.482	0.254	0.227	0.129***
	(18.13)	(0.632)	(0.628)	(0.0918)
Regime Type	0.193	0.785	2.14×10^{-7}***	0.487
	(0.214)	(0.507)	(3.16×10^{-7})	(0.298)
Ln Population	1.175	0.362**	0.597**	0.756**
	(0.470)	(0.163)	(0.152)	(0.106)
Time Frame	0.119***	15.60***	0.304	0.698
	(0.0819)	(11.47)	(0.361)	(0.207)
Region	0.255	0.0852***	2.157	1.475
	(0.284)	(0.0610)	(2.222)	(0.801)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-35: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Base Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.852***	1.865**	-0.863	0.227
	(0.647)	(0.893)	(0.880)	(0.403)
Economic Structure	-0.0411**	-0.112***	0.0623**	-0.00389
	(0.0206)	(0.0425)	(0.0253)	(0.0106)
Economic Discrimination	-4.159*	0.405	3.603**	-0.103
	(2.379)	(1.169)	(1.584)	(0.596)
Political Exclusion	1.911*	-1.086	-2.300**	0.662**
	(0.994)	(0.933)	(0.940)	(0.290)
Number of Non-State Actors	0.449	-0.556	1.507*	-0.403
	(0.628)	(0.777)	(0.893)	(0.291)
Organizational Capacity	0.113	17.27***	-0.0106	-0.356
	(0.558)	(1.061)	(1.106)	(0.259)
Political Representation	0.584	1.532**	1.979**	0.713**
	(0.666)	(0.763)	(0.848)	(0.279)
External Support	-0.419	0.432	1.110	-1.005***
	(0.579)	(0.573)	(1.453)	(0.303)
Natural Resources	2.606***	-1.330	-2.356**	0.230
	(1.005)	(0.940)	(1.116)	(0.344)
Ethno-Linguistic Fractionalization	2.013	-1.370	-1.483	-2.051***
	(2.423)	(2.488)	(2.770)	(0.714)
Regime Type	-1.643	-0.242	-15.36***	-0.720
	(1.107)	(0.645)	(1.474)	(0.612)
Ln Population	0.161	-1.015**	-0.517**	-0.280**
	(0.400)	(0.450)	(0.254)	(0.141)
Time Frame	-2.125***	2.747***	-1.190	-0.359
	(0.686)	(0.735)	(1.186)	(0.296)
Region	-1.365	-2.463***	0.769	0.389
	(1.112)	(0.715)	(1.030)	(0.543)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-36: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model I: Drought Ratio x Economic Structure
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	27.33**	437,399***	0.000118*	1.097
	(44.07)	(1.793×10^{6})	(0.000586)	(2.022)
Economic Structure	0.974	0.875*	1.047***	0.996
	(0.0251)	(0.0694)	(0.0188)	(0.0116)
Drought Ratio x Economic Structure	0.948	0.623***	1.210*	1.003
	(0.0550)	(0.108)	(0.122)	(0.0434)
Economic Discrimination	0.00915*	2.774	55.19***	0.907
	(0.0224)	(3.080)	(83.48)	(0.547)
Political Exclusion	6.015*	0.200*	0.107*	1.934**
	(5.973)	(0.168)	(0.123)	(0.563)
Number of Non-State Actors	1.753	0.874	4.385	0.667
	(1.200)	(0.704)	(4.263)	(0.194)
Organizational Capacity	1.120	1.360×10^{8}***	0.703	0.701
	(0.659)	(3.021×10^{8})	(0.774)	(0.181)
Political Representation	1.547	14.20***	10.78***	2.029**
	(0.965)	(14.06)	(9.387)	(0.600)
External Support	0.777	4.458	2.756	0.368***
	(0.546)	(4.279)	(3.112)	(0.115)
Natural Resources	15.59**	0.613	0.106*	1.253
	(16.99)	(0.389)	(0.124)	(0.433)
Ethno-Linguistic Fractionalization	7.506	0.162	0.157	0.130***
	(18.52)	(0.453)	(0.539)	(0.101)
Regime Type	0.219	0.944	2.32×10^{-7}***	0.488
	(0.237)	(0.606)	(4.30×10^{-7})	(0.299)
Ln Population	1.051	0.0658**	0.457***	0.754*
	(0.452)	(0.0706)	(0.122)	(0.111)
Time Frame	0.100***	461.6***	0.179	0.699
	(0.0756)	(1,058)	(0.225)	(0.208)
Region	0.279	0.0116**	3.469	1.460
	(0.319)	(0.0209)	(3.587)	(0.831)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-37: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model I: Drought Ratio x Economic Structure
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.308**	12.99***	-9.042*	0.0922
	(1.613)	(4.100)	(4.955)	(1.844)
Economic Structure	-0.0263	-0.133*	0.0463***	-0.00431
	(0.0257)	(0.0793)	(0.0179)	(0.0116)
Drought Ratio x Economic Structure	-0.0535	-0.473***	0.191*	0.00344
	(0.0581)	(0.173)	(0.101)	(0.0432)
Economic Discrimination	-4.694*	1.020	4.011***	-0.0972
	(2.453)	(1.110)	(1.513)	(0.603)
Political Exclusion	1.794*	-1.609*	-2.234*	0.659**
	(0.993)	(0.842)	(1.149)	(0.291)
Number of Non-State Actors	0.561	-0.135	1.478	-0.405
	(0.685)	(0.805)	(0.972)	(0.290)
Organizational Capacity	0.113	18.73***	-0.352	-0.356
	(0.588)	(2.222)	(1.101)	(0.259)
Political Representation	0.436	2.654***	2.378***	0.707**
	(0.624)	(0.990)	(0.871)	(0.296)
External Support	-0.252	1.495	1.014	-1.000***
	(0.703)	(0.960)	(1.129)	(0.314)
Natural Resources	2.747**	-0.489	-2.241*	0.226
	(1.089)	(0.635)	(1.161)	(0.345)
Ethno-Linguistic Fractionalization	2.016	-1.821	-1.854	-2.037***
	(2.467)	(2.796)	(3.446)	(0.772)
Regime Type	-1.521	-0.0580	-15.27***	-0.718
	(1.084)	(0.642)	(1.851)	(0.613)
Ln Population	0.0494	-2.722**	-0.784***	-0.282*
	(0.430)	(1.073)	(0.268)	(0.148)
Time Frame	-2.299***	6.135***	-1.719	-0.358
	(0.753)	(2.293)	(1.256)	(0.297)
Region	-1.277	-4.455**	1.244	0.378
	(1.144)	(1.797)	(1.034)	(0.569)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-38: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model II: Drought Ratio x Number of Non-State Actors
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.610	8.563×10^{27}***	5.730	1.876
	(3.594)	(1.116×10^{29})	(8.871)	(1.682)
Economic Structure	0.957*	0.907**	1.084**	0.998
	(0.0218)	(0.0424)	(0.0376)	(0.0110)
Economic Discrimination	0.0127*	1.509	27.63**	0.879
	(0.0299)	(1.650)	(41.29)	(0.527)
Political Exclusion	7.251**	0.353	0.0322**	1.965**
	(7.054)	(0.328)	(0.0449)	(0.574)
Number of Non-State Actors	1.158	0.654	13.62**	0.683
	(1.117)	(0.510)	(16.29)	(0.194)
Drought Ratio x Number of Non-State Actors	1.376	0***	0.313**	0.846
	(0.649)	(0)	(0.153)	(0.280)
Organizational Capacity	1.131	3.595×10^{7}***	1.266	0.706
	(0.633)	(4.310×10^{7})	(1.388)	(0.182)
Political Representation	1.749	5.297**	11.27**	2.142***
	(1.156)	(4.083)	(10.92)	(0.625)
External Support	0.650	1.771	4.341	0.366***
	(0.368)	(1.066)	(7.767)	(0.113)
Natural Resources	12.30**	0.278	0.0893*	1.244
	(13.21)	(0.255)	(0.117)	(0.424)
Ethno-Linguistic Fractionalization	7.445	0.236	0.242	0.117***
	(18.00)	(0.584)	(0.608)	(0.0898)
Regime Type	0.206	0.867	3.12×10^{-7}***	0.474
	(0.236)	(0.567)	(3.46×10^{-7})	(0.296)
Ln Population	1.190	0.352**	0.571**	0.759**
	(0.467)	(0.168)	(0.154)	(0.107)
Time Frame	0.127***	13.99***	0.336	0.705
	(0.0873)	(10.95)	(0.478)	(0.209)
Region	0.240	0.107***	2.198	1.585
	(0.264)	(0.0795)	(2.231)	(0.919)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-39: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model II: Drought Ratio x Number of Non-State Actors
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.284	64.32***	1.746	0.629
	(0.996)	(13.03)	(1.548)	(0.897)
Economic Structure	-0.0438*	-0.0973**	0.0809**	-0.00247
	(0.0228)	(0.0467)	(0.0347)	(0.0111)
Economic Discrimination	-4.367*	0.412	3.319**	-0.129
	(2.356)	(1.093)	(1.494)	(0.599)
Political Exclusion	1.981**	-1.040	-3.435**	0.675**
	(0.973)	(0.928)	(1.392)	(0.292)
Number of Non-State Actors	0.146	-0.425	2.611**	-0.381
	(0.965)	(0.780)	(1.196)	(0.283)
Drought Ratio x Number of Non-State Actors	0.319	-62.04***	-1.162**	-0.168
	(0.471)	(12.77)	(0.488)	(0.331)
Organizational Capacity	0.123	17.40***	0.236	-0.349
	(0.560)	(1.199)	(1.096)	(0.257)
Political Representation	0.559	1.667**	2.422**	0.762***
	(0.661)	(0.771)	(0.969)	(0.292)
External Support	-0.431	0.572	1.468	-1.004***
	(0.566)	(0.602)	(1.789)	(0.308)
Natural Resources	2.510**	-1.281	-2.416*	0.218
	(1.074)	(0.919)	(1.306)	(0.341)
Ethno-Linguistic Fractionalization	2.008	-1.443	-1.420	-2.147***
	(2.418)	(2.475)	(2.515)	(0.769)
Regime Type	-1.578	-0.143	-14.98***	-0.747
	(1.141)	(0.654)	(1.110)	(0.626)
Ln Population	0.174	-1.045**	-0.561**	-0.275**
	(0.393)	(0.477)	(0.270)	(0.140)
Time Frame	-2.066***	2.638***	-1.092	-0.350
	(0.689)	(0.783)	(1.424)	(0.296)
Region	-1.426	-2.231***	0.788	0.461
	(1.100)	(0.740)	(1.015)	(0.580)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-40: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model III: Drought Ratio x Political Exclusion
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	14.34**	2.838	0.157*	0.893
	(18.07)	(2.830)	(0.166)	(0.655)
Economic Structure	0.962**	0.882**	1.069**	0.996
	(0.0179)	(0.0449)	(0.0327)	(0.0108)
Economic Discrimination	0.0217*	1.896	46.91**	0.952
	(0.0489)	(2.489)	(83.24)	(0.563)
Political Exclusion	12.18**	0.256	0.0419**	1.816**
	(12.93)	(0.270)	(0.0592)	(0.537)
Drought Ratio x Political Exclusion	0.304	8.480	4.151	1.659
	(0.441)	(15.53)	(5.681)	(1.438)
Number of Non-State Actors	1.394	0.572	8.859**	0.668
	(0.859)	(0.458)	(8.624)	(0.197)
Organizational Capacity	1.061	4.753×10^{6}***	1.222	0.718
	(0.541)	(5.241×10^{6})	(1.395)	(0.188)
Political Representation	1.938	4.254*	7.627**	1.857*
	(1.178)	(3.691)	(6.832)	(0.608)
External Support	0.721	1.429	3.467	0.364***
	(0.421)	(0.847)	(5.396)	(0.110)
Natural Resources	13.35**	0.254	0.103**	1.285
	(13.71)	(0.263)	(0.115)	(0.447)
Ethno-Linguistic Fractionalization	6.857	0.227	0.310	0.135***
	(16.47)	(0.626)	(0.897)	(0.0958)
Regime Type	0.185	0.593	7.28×10^{-9}***	0.486
	(0.214)	(0.379)	(9.65×10^{-9})	(0.292)
Ln Population	1.136	0.367**	0.601*	0.765*
	(0.467)	(0.175)	(0.184)	(0.107)
Time Frame	0.109***	21.38***	0.313	0.699
	(0.0769)	(16.38)	(0.373)	(0.207)
Region	0.280	0.0496***	1.976	1.337
	(0.334)	(0.0483)	(2.117)	(0.783)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-41: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model III: Drought Ratio x Political Exclusion
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	2.663**	1.043	-1.854*	-0.113
	(1.261)	(0.997)	(1.059)	(0.734)
Economic Structure	-0.0388**	-0.126**	0.0669**	-0.00448
	(0.0186)	(0.0509)	(0.0306)	(0.0108)
Economic Discrimination	-3.829*	0.640	3.848**	-0.0492
	(2.250)	(1.313)	(1.774)	(0.591)
Political Exclusion	2.500**	-1.361	-3.172**	0.597**
	(1.062)	(1.053)	(1.411)	(0.296)
Drought Ratio x Political Exclusion	-1.191	2.138	1.423	0.506
	(1.451)	(1.831)	(1.369)	(0.866)
Number of Non-State Actors	0.332	-0.558	2.181**	-0.404
	(0.616)	(0.800)	(0.974)	(0.295)
Organizational Capacity	0.0596	15.37***	0.201	-0.332
	(0.510)	(1.103)	(1.142)	(0.261)
Political Representation	0.662	1.448*	2.032**	0.619*
	(0.608)	(0.868)	(0.896)	(0.327)
External Support	-0.327	0.357	1.243	-1.012***
	(0.583)	(0.592)	(1.556)	(0.301)
Natural Resources	2.591**	-1.372	-2.273**	0.251
	(1.027)	(1.039)	(1.114)	(0.348)
Ethno-Linguistic Fractionalization	1.925	-1.481	-1.172	-2.003***
	(2.402)	(2.754)	(2.897)	(0.710)
Regime Type	-1.686	-0.523	-18.74***	-0.721
	(1.154)	(0.639)	(1.325)	(0.600)
Ln Population	0.128	-1.001**	-0.509*	-0.268*
	(0.411)	(0.476)	(0.306)	(0.140)
Time Frame	-2.217***	3.062***	-1.160	-0.358
	(0.706)	(0.766)	(1.189)	(0.296)
Region	-1.271	-3.004***	0.681	0.290
	(1.191)	(0.973)	(1.071)	(0.586)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-42: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model IV: Drought Ratio x Economic Discrimination
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.880**	8.868**	0.334	1.090
	(2.299)	(9.150)	(0.299)	(0.447)
Economic Structure	0.940**	0.900**	1.067**	0.997
	(0.0283)	(0.0402)	(0.0270)	(0.0109)
Economic Discrimination	0	1.497	8.260	0.830
	(0)	(1.695)	(14.11)	(0.479)
Drought Ratio x Economic Discrimination	1.297×10^{11}	0	4,460	1,781
	(2.672×10^{12})	(0)	(36,994)	(13,946)
Political Exclusion	10.53*	0.349	0.102**	1.973**
	(12.89)	(0.332)	(0.0927)	(0.559)
Number of Non-State Actors	3.284	0.579	4.706*	0.661
	(2.604)	(0.449)	(4.013)	(0.194)
Organizational Capacity	1.170	8.968×10^{6}***	0.867	0.656
	(0.676)	(1.155×10^{7})	(0.960)	(0.170)
Political Representation	1.581	4.887**	8.495**	2.111***
	(1.061)	(3.685)	(8.933)	(0.593)
External Support	0.701	1.619	2.908	0.345***
	(0.396)	(0.950)	(4.413)	(0.106)
Natural Resources	22.23***	0.275	0.0821**	1.302
	(18.74)	(0.262)	(0.0841)	(0.453)
Ethno-Linguistic Fractionalization	14.70	0.254	0.143	0.125***
	(34.35)	(0.620)	(0.392)	(0.0898)
Regime Type	0.0853**	0.873	3.21×10^{-10}***	0.490
	(0.0995)	(0.607)	(3.94×10^{-10})	(0.298)
Ln Population	1.209	0.351**	0.601**	0.770*
	(0.491)	(0.168)	(0.153)	(0.108)
Time Frame	0.0936***	14.01***	0.280	0.669
	(0.0724)	(10.64)	(0.346)	(0.205)
Region	0.0758*	0.104***	2.369	1.465
	(0.112)	(0.0855)	(2.624)	(0.803)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-43: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Model IV: Drought Ratio x Economic Discrimination
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.356**	2.182**	-1.096	0.0858
	(0.593)	(1.032)	(0.895)	(0.410)
Economic Structure	-0.0617**	-0.106**	0.0647**	-0.00318
	(0.0301)	(0.0447)	(0.0253)	(0.0109)
Economic Discrimination	-27.00	0.404	2.111	-0.186
	(20.59)	(1.132)	(1.708)	(0.577)
Drought Ratio x Economic Discrimination	25.59	-52.05	8.403	7.485
	(20.60)	(65.33)	(8.295)	(7.829)
Political Exclusion	2.354*	-1.054	-2.286**	0.679**
	(1.224)	(0.954)	(0.912)	(0.283)
Number of Non-State Actors	1.189	-0.547	1.549*	-0.414
	(0.793)	(0.776)	(0.853)	(0.293)
Organizational Capacity	0.157	16.01***	-0.143	-0.421
	(0.578)	(1.288)	(1.107)	(0.259)
Political Representation	0.458	1.587**	2.140**	0.747***
	(0.671)	(0.754)	(1.051)	(0.281)
External Support	-0.355	0.482	1.067	-1.066***
	(0.564)	(0.587)	(1.518)	(0.309)
Natural Resources	3.102***	-1.291	-2.500**	0.264
	(0.843)	(0.952)	(1.024)	(0.348)
Ethno-Linguistic Fractionalization	2.688	-1.370	-1.944	-2.079***
	(2.337)	(2.439)	(2.742)	(0.718)
Regime Type	-2.462**	-0.135	-21.86***	-0.712
	(1.167)	(0.695)	(1.226)	(0.608)
Ln Population	0.190	-1.047**	-0.508**	-0.261*
	(0.407)	(0.479)	(0.254)	(0.140)
Time Frame	-2.369***	2.640***	-1.274	-0.402
	(0.774)	(0.759)	(1.236)	(0.307)
Region	-2.580*	-2.265***	0.863	0.382
	(1.477)	(0.823)	(1.107)	(0.548)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-44: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Full Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	30.87	2.220×10^{18}***	0.000883	0.687
	(98.76)	(1.286×10^{19})	(0.00424)	(1.646)
Economic Structure	0.955	0.856**	1.065***	0.997
	(0.0342)	(0.0549)	(0.0232)	(0.0124)
Drought Ratio x Economic Structure	0.958	0.279***	1.366*	1.035
	(0.0709)	(0.0663)	(0.251)	(0.0731)
Economic Discrimination	0	1.665	18.90**	0.838
	(0)	(1.581)	(27.16)	(0.484)
Drought Ratio x Economic Discrimination	2.167×10^{12}	0***	3.666×10^{6}	76,881
	(4.850×10^{13})	(0)	(5.161×10^{7})	(546,977)
Political Exclusion	37.35**	0.255	0.0202**	1.819**
	(53.77)	(0.233)	(0.0378)	(0.550)
Drought Ratio x Political Exclusion	0.0920	0.0168**	0.209	2.206
	(0.154)	(0.0349)	(0.383)	(1.868)
Number of Non-State Actors	2.203	0.331	36.02*	0.719
	(2.461)	(0.245)	(71.65)	(0.207)
Drought Ratio x Number of Non-State Actors	1.408	0.000683***	0.0562*	0.533
	(0.796)	(0.00130)	(0.0836)	(0.253)
Organizational Capacity	1.065	3.075×10^{10}***	0.536	0.688
	(0.562)	(7.043×10^{10})	(0.858)	(0.182)
Political Representation	1.668	17.74***	54.73	2.099**
	(0.921)	(15.08)	(145.8)	(0.678)
External Support	0.786	5.143*	1.752	0.352***
	(0.638)	(4.327)	(2.817)	(0.125)
Natural Resources	25.82***	5.195**	0.0991***	1.239
	(29.35)	(3.588)	(0.0856)	(0.437)
Ethno-Linguistic Fractionalization	14.35	0.0351	0.0391**	0.114***
	(27.97)	(0.0805)	(0.0642)	(0.0877)
Regime Type	0.0982*	3.652	4.26×10^{-7}***	0.442
	(0.132)	(4.110)	(5.55×10^{-7})	(0.269)
Ln Population	1.017	0.0101***	0.305*	0.792
	(0.535)	(0.0114)	(0.214)	(0.123)
Time Frame	0.0677***	1,395***	0.0664	0.718
	(0.0632)	(2,731)	(0.132)	(0.225)
Region	0.0672*	0.0159***	6.817	1.409
	(0.0960)	(0.0183)	(13.47)	(0.850)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table F-45: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Mediator Variables
Full Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.430	42.24***	-7.032	-0.376
	(3.199)	(5.793)	(4.807)	(2.397)
Economic Structure	-0.0458	-0.156**	0.0630***	-0.00343
	(0.0358)	(0.0641)	(0.0218)	(0.0124)
Drought Ratio x Economic Structure	-0.0427	-1.278***	0.312*	0.0344
	(0.0740)	(0.238)	(0.184)	(0.0707)
Economic Discrimination	-28.75	0.510	2.939**	-0.177
	(21.56)	(0.950)	(1.437)	(0.578)
Drought Ratio x Economic Discrimination	28.40	-989.9***	15.11	11.25
	(22.38)	(159.6)	(14.08)	(7.115)
Political Exclusion	3.620**	-1.365	-3.904**	0.599**
	(1.440)	(0.913)	(1.873)	(0.302)
Drought Ratio x Political Exclusion	-2.386	-4.088**	-1.564	0.791
	(1.670)	(2.082)	(1.832)	(0.847)
Number of Non-State Actors	0.790	-1.106	3.584*	-0.331
	(1.117)	(0.740)	(1.989)	(0.289)
Drought Ratio x Number of Non-State Actors	0.342	-7.290***	-2.879*	-0.629
	(0.566)	(1.906)	(1.489)	(0.475)
Organizational Capacity	0.0625	24.15***	-0.624	-0.374
	(0.528)	(2.291)	(1.602)	(0.265)
Political Representation	0.511	2.876***	4.002	0.741**
	(0.552)	(0.850)	(2.665)	(0.323)
External Support	-0.240	1.638*	0.561	-1.043***
	(0.811)	(0.841)	(1.608)	(0.355)
Natural Resources	3.251***	1.648**	-2.312***	0.214
	(1.137)	(0.691)	(0.864)	(0.352)
Ethno-Linguistic Fractionalization	2.664	-3.349	-3.242**	-2.171***
	(1.949)	(2.294)	(1.643)	(0.769)
Regime Type	-2.321*	1.295	-14.67***	-0.817
	(1.345)	(1.126)	(1.302)	(0.608)
Ln Population	0.0166	-4.594***	-1.187*	-0.233
	(0.526)	(1.127)	(0.702)	(0.156)
Time Frame	-2.693***	7.241***	-2.713	-0.331
	(0.934)	(1.957)	(1.992)	(0.314)
Region	-2.700*	-4.144***	1.919	0.343
	(1.427)	(1.156)	(1.976)	(0.603)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix G
ROBUSTNESS CHECK OF MODEL SPECIFICATIONS FOR NON-ETHNIC CIVIL WARS WITHOUT OFFENDING VARIABLES

Table G-46: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Base Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	7.570***	6.151**	0.620	1.238
	(5.478)	(5.259)	(0.615)	(0.605)
Economic Structure	0.945**	0.812***	1.071	0.996
	(0.0269)	(0.0432)	(0.0583)	(0.0110)
Economic Discrimination	0.0725	3.136	6.398	0.483
	(0.201)	(2.875)	(10.44)	(0.231)
Political Exclusion	6.233*	0.179**	0.109***	2.190***
	(6.251)	(0.151)	(0.0932)	(0.639)
Number of Non-State Actors	1.281	0.813	4.180**	0.634
	(0.797)	(0.593)	(2.908)	(0.188)
Mobilizational Capacity	1.154	1.351	1.998	0.796
	(1.031)	(1.070)	(1.843)	(0.267)
Political Representation	1.816	4.922**	8.242**	1.913**
	(1.179)	(3.515)	(6.881)	(0.498)
External Support	0.666	1.447	3.160	0.376***
	(0.443)	(0.884)	(3.732)	(0.113)
Natural Resources	9.164**	0.158**	0.114**	1.110
	(8.033)	(0.138)	(0.111)	(0.399)
Ethno-Linguistic Fractionalization	2.283	0.0543	0.586	0.102**
	(5.253)	(0.138)	(2.798)	(0.110)
Ln GDP *per capita*	0.610	0.165***	1.265	0.966
	(0.348)	(0.114)	(2.295)	(0.284)
Ln Population	0.978	0.499*	0.630**	0.736**
	(0.347)	(0.197)	(0.126)	(0.115)
Time Frame	0.138***	44.95***	0.280	0.674
	(0.103)	(49.16)	(0.343)	(0.222)
Region	0.262	0.0497***	1.935	1.484
	(0.305)	(0.0409)	(1.911)	(0.843)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-47: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables

	Base Model Coefficients			
VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	2.024***	1.817**	-0.478	0.214
	(0.724)	(0.855)	(0.992)	(0.489)
Economic Structure	-0.0561**	-0.208***	0.0684	-0.00359
	(0.0284)	(0.0532)	(0.0545)	(0.0111)
Economic Discrimination	-2.624	1.143	1.856	-0.727
	(2.772)	(0.917)	(1.631)	(0.478)
Political Exclusion	1.830*	-1.718**	-2.212***	0.784***
	(1.003)	(0.842)	(0.852)	(0.292)
Number of Non-State Actors	0.248	-0.207	1.430**	-0.456
	(0.622)	(0.730)	(0.696)	(0.297)
Mobilizational Capacity	0.143	0.301	0.692	-0.229
	(0.893)	(0.792)	(0.922)	(0.335)
Political Representation	0.596	1.594**	2.109**	0.649**
	(0.649)	(0.714)	(0.835)	(0.261)
External Support	-0.406	0.370	1.151	-0.978***
	(0.665)	(0.611)	(1.181)	(0.300)
Natural Resources	2.215**	-1.846**	-2.172**	0.104
	(0.877)	(0.874)	(0.973)	(0.360)
Ethno-Linguistic Fractionalization	0.826	-2.913	-0.535	-2.283**
	(2.300)	(2.538)	(4.777)	(1.075)
Ln GDP *per capita*	-0.494	-1.805***	0.235	-0.0346
	(0.571)	(0.695)	(1.814)	(0.294)
Ln Population	-0.0221	-0.695*	-0.463**	-0.307**
	(0.355)	(0.394)	(0.200)	(0.156)
Time Frame	-1.977***	3.806***	-1.272	-0.394
	(0.743)	(1.094)	(1.224)	(0.330)
Region	-1.339	-3.002***	0.660	0.395
	(1.162)	(0.823)	(0.988)	(0.568)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-48: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model I: Drought Ratio x Economic Structure
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	57.96**	6,343***	0.000209**	1.250
	(113.9)	(18,134)	(0.000856)	(2.324)
Economic Structure	0.965	0.805**	1.052	0.996
	(0.0246)	(0.0684)	(0.0519)	(0.0119)
Drought Ratio x Economic Structure	0.924	0.721**	1.221**	1.000
	(0.0735)	(0.0987)	(0.103)	(0.0441)
Economic Discrimination	0.0620	3.697	9.212	0.483
	(0.169)	(3.176)	(14.59)	(0.241)
Political Exclusion	6.013*	0.148**	0.107*	2.191***
	(5.877)	(0.118)	(0.126)	(0.645)
Number of Non-State Actors	1.571	1.384	3.221	0.634
	(1.173)	(1.014)	(2.361)	(0.188)
Mobilizational Capacity	0.928	1.191	2.970	0.795
	(0.915)	(0.887)	(3.925)	(0.263)
Political Representation	1.586	6.532***	14.26***	1.914**
	(0.913)	(4.603)	(13.47)	(0.524)
External Support	0.828	1.710	3.218	0.376***
	(0.662)	(1.287)	(2.834)	(0.114)
Natural Resources	10.48**	0.268**	0.132*	1.110
	(9.725)	(0.167)	(0.148)	(0.399)
Ethno-Linguistic Fractionalization	1.500	0.107	0.430	0.102*
	(3.460)	(0.291)	(2.056)	(0.121)
Ln GDP *per capita*	0.549	0.187**	1.290	0.966
	(0.327)	(0.132)	(2.172)	(0.286)
Ln Population	0.846	0.220*	0.499***	0.736*
	(0.357)	(0.173)	(0.111)	(0.121)
Time Frame	0.110***	342.0**	0.182	0.674
	(0.0842)	(833.4)	(0.208)	(0.224)
Region	0.289	0.0116**	2.895	1.486
	(0.356)	(0.0223)	(2.936)	(0.890)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-49: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model I: Drought Ratio x Economic Structure
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	4.060**	8.755***	-8.472**	0.223
	(1.965)	(2.859)	(4.092)	(1.860)
Economic Structure	-0.0354	-0.216**	0.0507	-0.00357
	(0.0255)	(0.0849)	(0.0494)	(0.0120)
Drought Ratio x Economic Structure	-0.0791	-0.327**	0.200**	-0.000241
	(0.0796)	(0.137)	(0.0840)	(0.0441)
Economic Discrimination	-2.781	1.308	2.221	-0.728
	(2.729)	(0.859)	(1.584)	(0.499)
Political Exclusion	1.794*	-1.910**	-2.236*	0.784***
	(0.977)	(0.793)	(1.174)	(0.294)
Number of Non-State Actors	0.452	0.325	1.170	-0.455
	(0.746)	(0.733)	(0.733)	(0.296)
Mobilizational Capacity	-0.0744	0.175	1.088	-0.229
	(0.985)	(0.745)	(1.322)	(0.331)
Political Representation	0.461	1.877***	2.657***	0.649**
	(0.576)	(0.705)	(0.945)	(0.274)
External Support	-0.188	0.536	1.169	-0.978***
	(0.799)	(0.753)	(0.881)	(0.304)
Natural Resources	2.350**	-1.317**	-2.023*	0.105
	(0.928)	(0.622)	(1.117)	(0.359)
Ethno-Linguistic Fractionalization	0.406	-2.237	-0.843	-2.286*
	(2.306)	(2.723)	(4.777)	(1.190)
Ln GDP *per capita*	-0.600	-1.676**	0.255	-0.0351
	(0.596)	(0.706)	(1.683)	(0.296)
Ln Population	-0.167	-1.516*	-0.694***	-0.307*
	(0.421)	(0.790)	(0.222)	(0.164)
Time Frame	-2.204***	5.835**	-1.705	-0.394
	(0.763)	(2.437)	(1.143)	(0.332)
Region	-1.242	-4.455**	1.063	0.396
	(1.233)	(1.923)	(1.014)	(0.599)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-50: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model II: Drought Ratio x Number of Non-State Actors
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	4.222	2.339×10^{28}	5.773	2.100
	(4.237)	(0)	(11.07)	(1.919)
Economic Structure	0.944**	0.831	1.093	0.997
	(0.0257)	(0)	(0.0785)	(0.0113)
Economic Discrimination	0.0421	3.031	6.931	0.450
	(0.131)	(0)	(11.08)	(0.224)
Political Exclusion	6.661*	0.210	0.0378***	2.307***
	(6.587)	(0)	(0.0459)	(0.691)
Number of Non-State Actors	0.901	0.903	12.41**	0.653
	(0.932)	(0)	(13.01)	(0.191)
Drought Ratio x Number of Non-State Actors	1.412	0	0.338*	0.792
	(0.773)	(0)	(0.194)	(0.280)
Mobilizational Capacity	1.275	1.185	1.657	0.756
	(1.202)	(0)	(1.349)	(0.258)
Political Representation	1.729	7.079	12.04**	2.051***
	(1.185)	(0)	(12.43)	(0.546)
External Support	0.659	1.781	4.009	0.375***
	(0.415)	(0)	(5.353)	(0.114)
Natural Resources	8.463**	0.144	0.106**	1.084
	(7.577)	(0)	(0.110)	(0.388)
Ethno-Linguistic_Fractionalization	2.536	0.0335	0.665	0.0736**
	(5.935)	(0)	(3.364)	(0.0926)
Ln GDP *per capita*	0.650	0.163	1.363	0.898
	(0.371)	(0)	(2.715)	(0.287)
Ln Population	0.992	0.466	0.600**	0.745*
	(0.342)	(0)	(0.130)	(0.117)
Time Frame	0.141***	40.66	0.284	0.684
	(0.105)	(0)	(0.384)	(0.226)
Region	0.263	0.0663	2.007	1.672
	(0.308)	(0)	(1.949)	(1.028)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-51: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model II: Drought Ratio x Number of Non-State Actors
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.440	65.32	1.753	0.742
	(1.004)	(0)	(1.917)	(0.914)
Economic Structure	-0.0572**	-0.186	0.0892	-0.00280
	(0.0272)	(0)	(0.0718)	(0.0114)
Economic Discrimination	-3.168	1.109	1.936	-0.798
	(3.114)	(0)	(1.598)	(0.496)
Political Exclusion	1.896*	-1.560	-3.276***	0.836***
	(0.989)	(0)	(1.216)	(0.300)
Number of Non-State Actors	-0.104	-0.102	2.518**	-0.426
	(1.035)	(0)	(1.049)	(0.292)
Drought Ratio x Number of Non-State Actors	0.345	-63.00	-1.083*	-0.233
	(0.548)	(0)	(0.573)	(0.353)
Mobilizational Capacity	0.243	0.170	0.505	-0.279
	(0.942)	(0)	(0.814)	(0.341)
Political Representation	0.547	1.957	2.489**	0.718***
	(0.685)	(0)	(1.032)	(0.266)
External Support	-0.416	0.577	1.388	-0.982***
	(0.630)	(0)	(1.335)	(0.305)
Natural Resources	2.136**	-1.937	-2.249**	0.0810
	(0.895)	(0)	(1.040)	(0.358)
Ethno-Linguistic Fractionalization	0.931	-3.395	-0.408	-2.609**
	(2.340)	(0)	(5.058)	(1.259)
Ln GDP *per capita*	-0.431	-1.812	0.310	-0.108
	(0.571)	(0)	(1.992)	(0.319)
Ln Population	-0.00840	-0.763	-0.511**	-0.295*
	(0.345)	(0)	(0.217)	(0.157)
Time Frame	-1.958***	3.705	-1.259	-0.380
	(0.742)	(0)	(1.352)	(0.331)
Region	-1.335	-2.713	0.697	0.514
	(1.170)	(0)	(0.971)	(0.615)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-52: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model III: Drought Ratio x Political Exclusion
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	22.56**	4.909	0.272	0.866
	(28.58)	(5.377)	(0.238)	(0.685)
Economic Structure	0.942**	0.812***	1.075	0.997
	(0.0264)	(0.0427)	(0.0635)	(0.0114)
Economic Discrimination	0.133	3.249	8.674	0.513
	(0.314)	(2.967)	(15.09)	(0.244)
Political Exclusion	14.53**	0.162**	0.0520**	2.002**
	(15.77)	(0.147)	(0.0684)	(0.607)
Drought Ratio x Political Exclusion	0.197	1.814	3.483	1.745
	(0.293)	(3.744)	(5.140)	(1.536)
Number of Non-State Actors	1.114	0.824	6.735**	0.631
	(0.646)	(0.597)	(5.943)	(0.190)
Mobilizational Capacity	1.110	1.458	2.214	0.816
	(1.036)	(1.291)	(2.282)	(0.273)
Political Representation	2.137	4.492**	8.750**	1.734*
	(1.293)	(3.424)	(8.215)	(0.516)
External Support	0.764	1.375	3.431	0.373***
	(0.502)	(0.803)	(4.206)	(0.112)
Natural Resources	8.558**	0.169**	0.119**	1.141
	(7.686)	(0.145)	(0.111)	(0.413)
Ethno-Linguistic Fractionalization	1.134	0.0674	0.853	0.118**
	(2.820)	(0.167)	(4.284)	(0.124)
Ln GDP *per capita*	0.488	0.182**	1.312	1.020
	(0.294)	(0.155)	(2.397)	(0.311)
Ln Population	0.921	0.496*	0.647*	0.740*
	(0.346)	(0.204)	(0.157)	(0.114)
Time Frame	0.127***	46.08***	0.288	0.670
	(0.0989)	(50.89)	(0.349)	(0.220)
Region	0.307	0.0437***	1.819	1.309
	(0.393)	(0.0475)	(1.945)	(0.800)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-53: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model III: Drought Ratio x Political Exclusion
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	3.116**	1.591	-1.301	-0.143
	(1.267)	(1.095)	(0.874)	(0.791)
Economic Structure	-0.0592**	-0.208***	0.0725	-0.00280
	(0.0281)	(0.0526)	(0.0590)	(0.0114)
Economic Discrimination	-2.019	1.178	2.160	-0.667
	(2.365)	(0.913)	(1.740)	(0.476)
Political Exclusion	2.676**	-1.823**	-2.956**	0.694**
	(1.085)	(0.909)	(1.316)	(0.303)
Drought Ratio x Political Exclusion	-1.627	0.595	1.248	0.557
	(1.490)	(2.064)	(1.475)	(0.880)
Number of Non-State Actors	0.108	-0.193	1.907**	-0.460
	(0.580)	(0.724)	(0.882)	(0.301)
Mobilizational Capacity	0.105	0.377	0.795	-0.203
	(0.933)	(0.886)	(1.031)	(0.334)
Political Representation	0.759	1.502**	2.169**	0.550*
	(0.605)	(0.762)	(0.939)	(0.298)
External Support	-0.269	0.319	1.233	-0.985***
	(0.657)	(0.584)	(1.226)	(0.299)
Natural Resources	2.147**	-1.779**	-2.125**	0.132
	(0.898)	(0.859)	(0.929)	(0.362)
Ethno-Linguistic Fractionalization	0.126	-2.697	-0.159	-2.140**
	(2.486)	(2.473)	(5.021)	(1.052)
Ln GDP *per capita*	-0.718	-1.705**	0.272	0.0200
	(0.603)	(0.853)	(1.827)	(0.305)
Ln Population	-0.0821	-0.702*	-0.435*	-0.301*
	(0.376)	(0.411)	(0.243)	(0.154)
Time Frame	-2.065***	3.830***	-1.244	-0.400
	(0.780)	(1.104)	(1.210)	(0.328)
Region	-1.181	-3.130***	0.598	0.269
	(1.279)	(1.086)	(1.069)	(0.611)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-54: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model IV: Drought Ratio x Economic Discrimination
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	4.899**	7.119**	0.484	1.114
	(3.796)	(6.167)	(0.498)	(0.555)
Economic Structure	0.937*	0.816***	1.076	0.997
	(0.0348)	(0.0436)	(0.0589)	(0.0113)
Economic Discrimination	2.63×10^{-7}	3.034	1.420	0.450*
	(4.26×10^{-6})	(2.830)	(2.429)	(0.203)
Drought Ratio x Economic Discrimination	1.283×10^{7}	0	5,772	261.2
	(2.196×10^{8})	(0)	(41,397)	(2,095)
Political Exclusion	9.888*	0.191*	0.109***	2.209***
	(12.90)	(0.167)	(0.0905)	(0.630)
Number of Non-State Actors	1.819	0.789	4.586**	0.633
	(1.473)	(0.576)	(3.153)	(0.187)
Mobilizational Capacity	0.854	1.342	1.762	0.802
	(0.866)	(1.066)	(1.589)	(0.271)
Political Representation	1.795	4.914**	9.657**	1.940**
	(1.107)	(3.545)	(9.503)	(0.508)
External Support	0.662	1.415	3.125	0.363***
	(0.470)	(0.867)	(3.794)	(0.111)
Natural Resources	9.304***	0.162**	0.0951**	1.137
	(6.844)	(0.145)	(0.0892)	(0.412)
Ethno-Linguistic Fractionalization	2.374	0.0519	0.364	0.101**
	(4.923)	(0.131)	(1.782)	(0.108)
Ln GDP *per capita*	0.595	0.168***	1.368	0.970
	(0.397)	(0.113)	(2.546)	(0.288)
Ln Population	0.981	0.504*	0.627**	0.750*
	(0.393)	(0.202)	(0.138)	(0.117)
Time Frame	0.138***	39.52***	0.258	0.649
	(0.106)	(43.29)	(0.336)	(0.221)
Region	0.0971	0.0567***	2.182	1.483
	(0.165)	(0.0508)	(2.380)	(0.849)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-55: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Model IV: Drought Ratio x Economic Discrimination
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	1.589**	1.963**	-0.727	0.108
	(0.775)	(0.866)	(1.031)	(0.498)
Economic Structure	-0.0650*	-0.203***	0.0729	-0.00294
	(0.0371)	(0.0535)	(0.0548)	(0.0113)
Economic Discrimination	-15.15	1.110	0.351	-0.799*
	(16.23)	(0.933)	(1.710)	(0.451)
Drought Ratio x Economic Discrimination	16.37	-57.73	8.661	5.565
	(17.11)	(74.35)	(7.173)	(8.020)
Political Exclusion	2.291*	-1.656*	-2.221***	0.792***
	(1.305)	(0.875)	(0.834)	(0.285)
Number of Non-State Actors	0.598	-0.236	1.523**	-0.457
	(0.809)	(0.730)	(0.687)	(0.296)
Mobilizational Capacity	-0.158	0.294	0.567	-0.220
	(1.015)	(0.794)	(0.901)	(0.338)
Political Representation	0.585	1.592**	2.268**	0.663**
	(0.617)	(0.721)	(0.984)	(0.262)
External Support	-0.412	0.347	1.139	-1.014***
	(0.709)	(0.613)	(1.214)	(0.305)
Natural Resources	2.230***	-1.818**	-2.352**	0.128
	(0.736)	(0.895)	(0.937)	(0.363)
Ethno-Linguistic Fractionalization	0.865	-2.959	-1.011	-2.297**
	(2.074)	(2.532)	(4.898)	(1.073)
Ln GDP *per capita*	-0.519	-1.782***	0.314	-0.0307
	(0.667)	(0.673)	(1.861)	(0.297)
Ln Population	-0.0196	-0.686*	-0.467**	-0.287*
	(0.401)	(0.401)	(0.220)	(0.156)
Time Frame	-1.981***	3.677***	-1.355	-0.432
	(0.768)	(1.095)	(1.301)	(0.340)
Region	-2.332	-2.871***	0.780	0.394
	(1.696)	(0.896)	(1.091)	(0.572)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-56: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Full Model
Sub-Hazard Ratios

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	331.1	2.671×10^{23}***	0.00190**	0.721
	(1,647)	(1.527×10^{24})	(0.00515)	(1.768)
Economic Structure	0.948*	0.760**	1.077	0.997
	(0.0274)	(0.105)	(0.0524)	(0.0132)
Drought Ratio x Economic Structure	0.911	0.308***	1.357**	1.034
	(0.0962)	(0.139)	(0.172)	(0.0751)
Economic Discrimination	3.82×10^{-9}	1.923	4.054	0.421*
	(7.09×10^{-8})	(1.919)	(5.377)	(0.204)
Drought Ratio x Economic Discrimination	1.148×10^{10}	0***	220,185*	12,061
	(2.476×10^{11})	(0)	(1.469×10^{6})	(84,297)
Political Exclusion	114.8*	0.344	0.0162**	2.105**
	(290.1)	(0.332)	(0.0311)	(0.652)
Drought Ratio x Political Exclusion	0.0192	0.000822	0.338	2.324
	(0.0593)	(0.00405)	(0.408)	(2.044)
Number of Non-State Actors	1.203	0.756	34.24**	0.683
	(1.165)	(0.508)	(60.17)	(0.207)
Drought Ratio x Number of Non-State Actors	1.511	7.69×10^{-11}*	0.0561**	0.522
	(0.820)	(1.06×10^{-9})	(0.0701)	(0.258)
Mobilizational Capacity	0.486	0.481	2.290	0.758
	(0.783)	(0.582)	(2.377)	(0.264)
Political Representation	2.501	4.120**	63.68*	1.937**
	(1.715)	(2.890)	(141.9)	(0.559)
External Support	1.019	1.141	2.555	0.367***
	(1.191)	(0.586)	(1.995)	(0.125)
Natural Resources	10.02***	1.291	0.117**	1.089
	(7.759)	(0.860)	(0.104)	(0.394)
Ethno-Linguistic Fractionalization	0.369	0.0491	0.123	0.0738**
	(1.124)	(0.109)	(0.369)	(0.0878)
Ln GDP *per capita*	0.319	0.135	1.457	0.915
	(0.351)	(0.170)	(2.291)	(0.293)
Ln Population	0.670	0.0582**	0.342**	0.770
	(0.488)	(0.0840)	(0.145)	(0.128)
Time Frame	0.0882***	1,467*	0.0686*	0.692
	(0.0723)	(5,591)	(0.0985)	(0.244)
Region	0.0726	0.0101**	4.990	1.444
	(0.144)	(0.0206)	(7.228)	(0.908)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table G-57: Robustness Check with Drought Ratio for Ethnic & Non-Ethnic Civil Wars without Offending Variables
Full Model
Coefficients

VARIABLES	(1) Negotiated Settlement	(2) Government Victory	(3) Rebel Victory	(4) Pooled
Drought Ratio	5.802	53.94***	-6.267**	-0.327
	(4.976)	(5.718)	(2.713)	(2.452)
Economic Structure	-0.0531*	-0.274**	0.0738	-0.00269
	(0.0289)	(0.138)	(0.0487)	(0.0133)
Drought Ratio x Economic Structure	-0.0937	-1.177***	0.305**	0.0334
	(0.106)	(0.451)	(0.127)	(0.0727)
Economic Discrimination	-19.38	0.654	1.400	-0.866*
	(18.55)	(0.998)	(1.326)	(0.485)
Drought Ratio x Economic Discrimination	23.16	-923.9***	12.30*	9.398
	(21.57)	(211.9)	(6.672)	(6.989)
Political Exclusion	4.744*	-1.068	-4.120**	0.744**
	(2.526)	(0.966)	(1.917)	(0.310)
Drought Ratio x Political Exclusion	-3.950	-7.104	-1.084	0.843
	(3.082)	(4.930)	(1.206)	(0.879)
Number of Non-State Actors	0.185	-0.280	3.533**	-0.382
	(0.969)	(0.673)	(1.757)	(0.303)
Drought Ratio x Number of Non-State Actors	0.412	-23.29*	-2.881**	-0.650
	(0.543)	(13.78)	(1.250)	(0.494)
Mobilizational Capacity	-0.722	-0.731	0.829	-0.277
	(1.611)	(1.209)	(1.038)	(0.348)
Political Representation	0.917	1.416**	4.154*	0.661**
	(0.685)	(0.701)	(2.228)	(0.289)
External Support	0.0185	0.132	0.938	-1.002***
	(1.169)	(0.514)	(0.781)	(0.340)
Natural Resources	2.305***	0.256	-2.149**	0.0850
	(0.774)	(0.666)	(0.888)	(0.362)
Ethno-Linguistic Fractionalization	-0.997	-3.015	-2.093	-2.607**
	(3.045)	(2.228)	(2.994)	(1.189)
Ln GDP *per capita*	-1.144	-2.000	0.376	-0.0893
	(1.101)	(1.255)	(1.572)	(0.320)
Ln Population	-0.401	-2.844**	-1.073**	-0.261
	(0.728)	(1.443)	(0.424)	(0.166)
Time Frame	-2.428***	7.291*	-2.680*	-0.368
	(0.820)	(3.812)	(1.437)	(0.353)
Region	-2.623	-4.599**	1.607	0.368
	(1.976)	(2.043)	(1.449)	(0.629)
Number of Conflicts	110	110	110	98
Number of Failures	14	14	11	68
Observations	1161	1161	1161	1161

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Appendix H
CASE SELECTION PROCESS FOR BIVARIATE TABLE

Table H-58: Case Selection Process for the Category (I): *Long Droughts* vs. *Long Civil Wars*

Region	Country	Long Droughts	Long Civil Wars
North Africa	Algeria	1981-1983	1993-2003
Central Africa	Angola	1989-1992 1997-1998 2004-2005 2012-2013	1991-2003
East Africa	Burundi	1999-2001 2003-2004 2005-2006 2008-2009 2009-2010	1997-2003
Central Africa	Chad	1969-1978 1981-1985 2009-2010 2012-2013 1910-1914	1965-1970 1991-1998 1971-1982 1965-1989
East Africa	Ethiopia	1973-1978 1983-1984 1989-1994 1999-2000 2003-2004 2005-2006 2008-2009 2009-2010 2011-2012 2015-2017	1976-1983 1996-2003 1972-1982 1980-1991 1977-1991 1976-1991 1972-1991 1962-1982

Middle East	Iran	1999-2001	1979-1993
Middle East	Iraq	1969-1971 1998-2001	1961-1970 1973-1993 1976-1993 1991-1996
West Africa	Mauritania	1910-1914 1940-1944 1969-1975 1976-1977 1978-1979 1980-1985 1997-1998 2001-2003 2010-2011 2011-2012 2018-2019	1975-1989
North Africa	Morocco	1999-2001	1975-1989
East Africa	Mozambique	1979-1982 1981-1985 1991-1992 1998-1999 2005-2006 2008-2009 2016-2017	1976-1992
West Africa	Senegal	1910-1914 1940-1944 1966-1967 1969-1975 1977-1978 1979-1980 1982-1985 2011-2013 2014-2015	1990-2003

		2018-2021	
East Africa	Somalia	1974-1976 2000-2001 2008-2009 2010-2011 2014-2017 2015-2017	1991-1996 1982-1991 1980-1991
South Africa	South Africa	1982-1983 1991-1992 2015-2017 2017-2018	1981-1993 1966-1988
North Africa	Sudan	1983-1985 1991-1992 2000-2001 2009-2010	1991-1997 1963-1972 1983-2003
East Africa	Uganda	1979-1980 1987-1988 1998-1999 1999-2001 2005-2006 2008-2009	1981-1986 1996-2003 1994-2003
Middle East	Yemen	1969-1971	1962-1970

Table H-59: Case Selection Process for the Category (II): *Short Droughts* vs. *Long Civil Wars*

Region	Country	Short Droughts	Long Civil Wars
Central Africa	Angola	1981-1981 1985-1985 2001-2001 2017-2017	1991-2003
East Africa	Burundi	2011-2011	1997-2003
Central Africa	Chad	1966-1966 1993-1993 1997-1997 2001-2001 2017-2017	1997-2003 1965-1970 1991-1998 1971-1982 1965-1989
East Africa	Ethiopia	1965-1965 1969-1969 1987-1987 1997-1997 1998-1998 2012-2012 2021-2021	1962-1982 1976-1983 1996-2003 1972-1982 1980-1991 1977-1991 1976-1991 1972-1991
Middle East	Iran	1964-1964 2021-2021	1979-1993
Middle East	Iraq	2021-2021	1991-1996 1961-1970 1976-1993 1973-1993
Middle East	Israel	1999-1999	1996-2003 1990-1999 1993-2003

			1965-1993 1974-2003 1972-2003
West Africa	Liberia	1983-1983	1989-1995
West Africa	Mauritania	1965-1965 1993-1993 2017-2017 2020-2020	1975-1989
North Africa	Morocco	1966-1966 1971-1971 1983-1983 1984-1984	1975-1989
East Africa	Mozambique	1987-1987 2001-2001 2002-2002 2003-2003 2007-2007 2010-2010 2020-2020	1976-1992
West Africa	Senegal	2002-2002	1990-2003
East Africa	Somalia	1964-1964 1969-1969 1980-1980 1983-1983 1987-1987 1988-1988 2004-2004 2005-2005 2012-2012 2019-2019 2021-2021	1991-1996 1982-1991 1980-1991
South Africa	South Africa	1964-1964 1980-1980	1981-1993 1966-1988

		1986-1986 1988-1988 1995-1995 2004-2004 2019-2019	
North Africa	Sudan	1980-1980 1987-1987 1990-1990 1996-1996 2012-2012 2015-2015 2016-2016	1991-1997 1963-1972 1983-2003
East Africa	Uganda	1967-1967 2002-2002 2011-2011	1981-1986 1996-2003 1994-2003
Middle East	Yemen	1975-1975 1977-1977	N/A

Table H-60: Case Selection Process for the Category (III): *Long Droughts* vs. *Short Civil Wars*

Region	Country	Long Droughts	Short Civil Wars
Central Africa	Angola	1989-1992	1992-1994
East Africa	Burundi	1999-2001	N/A
Central Africa	Central African Republic	N/A	N/A
Central Africa	Chad	1910-1914 1940-1944 1969-1978 1981-1985	1989-1989 1997-1998 1990-1990 1998-1999
Central Africa	Congo	N/A	N/A
East Africa	Djibouti	N/A	N/A
East Africa	Eritrea	1999-2003	1997-1999 2003-2003
East Africa	Ethiopia	1973-1978 1989-1994 2015-2017	1989-1991 1961-1961 1989-1989 1996-1996 1996-1999
West Africa	Guinea	1910-1914 1940-1944 1980-1985 1982-1985 1972-1975	1970-1970 1979-1979 1998-1999 2000-2001
Middle East	Iran	1999-2001	1946-1946 1979-1980 1979-1982 1986-1988 1991-1993 2000-2001
Middle East	Iraq	1969-1971	1958-1958

		1998-2001	1959-1959 1963-1963 1982-1984 1987-1987
South Africa	Namibia	1982-1984 2018-2020	N/A
West Africa	Nigeria	1983-1985	1966-1966 1967-1970
West Africa	Senegal	1910-1914 1940-1944 1969-1975 1982-1985 2011-2013 2018-2021	N/A
East Africa	Somalia	1974-1976 2014-2017 2015-2017	1978-1978 2001-2002 1989-1991
East Africa	Uganda	1999-2001	N/A
Middle East	Yemen	1969-1971	N/A
South Africa	Zimbabwe	1982-1984 1991-1995 2001-2003 2007-2009 2010-2013 2013-2017 2017-2020	N/A

Table H-61: Case Selection Process for the Category (IV): *Short Droughts* vs. *Short Civil Wars*

Region	Country	Short Droughts	Short Civil Wars
Central Africa	Angola	1981-1981 1985-1985 2001-2001 2017-2017	1998-1999 1998-1999 1975-1976 1992-1994
East Africa	Burundi	2011-2011	1965-1965 1990-1990 1997-1997 1991-1992
Central Africa	Chad	1966-1966 1993-1993 1997-1997 2017-2017 2001-2001	1988-1990 1988-2001 1989-1989 1989-1999 1990-1990 1992-1994 1997-1998 1999-2001 1999-2002
Central Africa	Congo	1983-1983 1984-1984	1960-1961 1960-1962 1964-1965 1967-1967 1977-1978 1996-1997 1997-1997 1998-1999 1998-2001 1999-2001
East Africa	Djibouti	1980-1980 1988-1988	1991-1994

		1996-1996 2001-2001 2007-2007	
East Africa	Eritrea	1993-1993 2008-2008	2003-2003
East Africa	Ethiopia	1965-1965 1969-1969 1987-1987 1997-1997 1998-1998 2012-2012 2021-2021	1961-1961 1989-1989 1996-1996 1989-1991 1996-1999
West Africa	Guinea	1998-1998	1970-1970 1979-1979 1998-1999 2000-2001
Middle East	Iran	1964-1964 2021-2021	1946-1946 1979-1980 1979-1982 1986-1988 1991-1993 2000-2001
Middle East	Iraq	2021-2021	1958-1958 1959-1959 1963-1963 1982-1984 1987-1987
Middle East	Israel	1999-1999	2000-2003 2002-2003
Middle East	Jordan	1999-1999 2000-2000	N/A
West Africa	Liberia	1983-1983	1980-1980 1990-1992

			1996-1996 2000-2003
South Africa	Namibia	2001-2001	N/A
West Africa	Senegal	2002-2002	N/A
East Africa	Somalia	1964-1964 1969-1969 1980-1980 1983-1983 1987-1987 1988-1988 2004-2004 2005-2005 2012-2012 2019-2019 2021-2021	1978-1978 1989-1991 2001-2002
East Africa	Uganda	1967-1967 2002-2002 2011-2011	1971-1971 1972-1972 1974-1977 1978-1979 1987-1988 1987-1989 1989-1990 1989-1991 1990-1991 1996-1996
Middle East	Yemen	1975-1975 1977-1977	1948-1948 1980-1982 1986-1986 1994-1994
South Africa	Zimbabwe	1998-1998	N/A

Table H-62: Preliminary Case Selection Categories

Civil Wars

		Long	**Short**
Droughts	**Long**	**(I)** *Angola* *Burundi* *Chad* *Ethiopia* *Mauritania* *Mozambique* *South Africa* *Sudan* *Uganda*	**(III)** *Eritrea* *Ethiopia* *Iran*
	Short	**(II)** *Angola* *Chad* *Ethiopia* *Israel* *Morocco* *Mozambique* *Senegal* *Somalia* *South Africa* *Sudan*	**(IV)** *Chad* *Ethiopia* *Guinea*

Table H-63: Short Explanations of Selected Cases

Selected Case	Region	Civil Wars	Droughts	Short Description
(I) Chad	*Central Africa*	*1965-1979: 14 years*	*1969-1978: 9 years* *1981-1985: 4 years*	*The (First) Chadian Civil War was fought between the authoritarian Chadian governments and the National Liberation Front of Chad (FROLINAT) under the interventions of France and Libya.*
(II) Sudan	*North Africa*	*1983-2005: 22 years*	*1987-1987: < 1 year* *1990-1990: < 1 year* *1996-1996: < 1 year*	*The (Second) Sudanese Civil War was fought between the central Sudanese government and Sudan People's Liberation Army (SPLA), leading to the independence of South Sudan in 2011.*
(III) Ethiopia	*East Africa*	*1974-1991: 17 years*	*1973-1978: 5 year* *1989-1994: 5 year*	*The Ethiopian Civil War was fought between Ethiopia's communist military government (the Derg) led by Mengistu Haile Mariam and ethno-nationalist/separatist anti-government rebel groups, including the Eritrean People's Liberation Front (EPLF) and the Tigray People's Liberation Front (TPLF), who fought hand-in-hand against Addis Ababa. The Ethiopian Civil War led to the independence of Eritrea in 1993.*

Appendix I
FBIS HISTORICAL RECORDS

Table I-64: Reviewed FBIS Records on Chad, Sudan & Ethiopia

Case	Report No	Original Source	Publication Date	Priority
Chad	FBIS-MEA-74-020	Ouagadougou Domestic Service	29 January 1974	Secondary
	FBIS-MEA-74-040	N'Djamena Domestic Service	27 February 1974	Secondary
	FBIS-MEA-74-045	Brazzaville Bulletin Quotidien De L'Aci	6 March 1974	Secondary
	FBIS-MEA-74-054	Paris AFP	19 March 1974	Secondary
	FBIS-SSA-74-011	Niamey Domestic Service	15 April 1974	Secondary
	FBIS-SSA-74-043	Paris AFP	30 May 1974	Primary
	FBIS-CHI-74-130	Peking NCNA	5 July 1974	Secondary
	FBIS-APA-74-147	Melbourne Overseas Service	30 July 1974	Secondary
	FBIS-SSA-74-096	Brazzaville Bulletin Quotidien De L'Aci	14 August 1974	Secondary
	FBIS-SSA-74-100	Kaduna New Nigerian	20 August 1974	Secondary
	FBIS-SOV-74-179	Moscow TASS	13 September 1974	Secondary
	FBIS-SSA-74-133	N/A	7 October 1974	Secondary
	FBIS-SSA-74-138	Paris AFP	15 October 1974	Secondary
	FBIS-SSA-74-141	N'Djamena Domestic Service	17 October 1974	Primary
	FBIS-SSA-74-149	N'Djamena Domestic Service	31 October 1974	Primary
	FBIS-SSA-74-149	Paris AFP	31 October 1974	Primary
	FBIS-SSA-74-172	Paris Le Monde	4 December 1974	Primary
	FBIS-CHI-74-244	Peking NCNA	18 December 1974	Primary
	FBIS-SSA-74-189	Ouagadougou Domestic Service	30 December 1974	Secondary
	FBIS-SSA-74-251	Ouagadougou Domestic Service	30 December 1974	Secondary
	FBIS-SOV-75-019	Moscow TASS	28 January 1975	Secondary

	FBIS-SAF-75-020	N'Djamena Domestic Service	29 January 1975	Secondary
	FBIS-SOV-75-028	Moscow	10 February 1975	Secondary
	FBIS-SAF-75-028	Paris AFP	19 March 1975	Secondary
	FBIS-SAF-75-062	Paris AFP	31 March 1975	Primary
	FBIS-SAF-75-078	N'Djamena Domestic Service	22 April 1975	Primary
	FBIS-SAF-75-088	Paris AFP	3 May 1975	Primary
	FBIS-SAF-75-224	Brazzaville Bulletin Quotidien De L'Aci	19 November 1975	Primary
	FBIS-SAF-75-244	N'Djamena Domestic Service	18 December 1975	Secondary
	FBIS-MEA-76-031	Cairo MENA	13 February 1976	Secondary
	FBIS-SOV-76-044	Moscow	4 March 1976	Secondary
	FBIS-SAF-76-059	N'Djamena Domestic Service	25 March 1976	Secondary
	FBIS-EEU-76-090	Bratislava Pravda	7 May 1976	Secondary
	FBIS-SSA-74-149	N'Djamena Domestic Service	31 October 1974	Primary
	FBIS-SSA-74-180	Paris AFP	14 December 1974	Primary
	FBIS-SSA-77-153	London Observer	7 August 1977	Primary
	FBIS-SOV-81-001	Moscow Pravda	28 December 1980	Primary
	FBIS-SOV-83-166	Moscow Literaturnaya Gazeta	17 August 1983	Primary
	FBIS-SAF-75-093	Rome ANSA	12 May 1975	Primary
Sudan	FBIS-NES-93-048	BBC World Service	15 March 1993	Secondary
	FBIS-SOV-90-215	Moscow International Service	6 November 1990	Secondary
	FBIS-NES-94-031	Paris AFP	15 February 1994	Primary
	FBIS-NES-94-183	Al-Ahram Weekly	21 September 1994	Primary
	FBIS-NES-94-190	Paris AFP	30 September 1994	Secondary
	FBIS-NES-91-197	SUNA	10 October 1991	Primary
	FBIS-NES-95-006	MENA	10 January 1995	Primary
	FBIS-MEA-84-059	SUNA	26 March 1984	Secondary
	FBIS-NES-94-168	Paris AFP	30 August 1994	Primary
	FBIS-NES-91-045	PANA	7 March 1991	Primary
	FBIS-AFR-94-193	BBC World Service	5 October 1994	Secondary
	FBIS-NES-89-242	Jordan Times	19 December 1989	Primary
	FBIS-NES-95-078	KNA	24 April 1995	Secondary
	FBIS-NES-95-106	Paris AFP	2 June 1995	Secondary

	FBIS-NES-94-130	Paris AFP	7 July 1994	Secondary
	FBIS-NES-94-053	Paris AFP	17 March 1994	Primary
	FBIS_MEA-83-219	SUNA	10 November 1983	Secondary
	FBIS-NES-93-065	Paris AFP	7 April 1993	Secondary
	FBIS-NES-88-223	Al-Safir	18 November 1988	Secondary
	FBIS-SAS-86-247	KEYHAN	24 December 1986	Primary
	FBIS-MEA-85-095	SPLA Radio	16 May 1985	Primary
	FBIS-EAS-94-110	KYODO	8 June 1994	Primary
	FBIS-NES-94-184	BBC World Service	22 September 1994	Primary
	FBIS-NES-94-059	PANA	28 March 1994	Primary
	FBIS-MEA-86-198	Paris AFP	14 October 1986	Primary
	FBIS-NES-95-062	BBC World Service	31 March 1995	Primary
	FBIS-NES-92-246	Paris AFP	22 December 1992	Primary
	FBIS-WEU-94-104	Radio France International	31 May 1994	Primary
	FBIS-MEA-85-043	Omdurman Domestic Service	5 March 1985	Secondary
	FBIS-MEA-85-043	Omdurman Domestic Service	5 March 1985	Secondary
	FBIS-NES-94-031	Paris AFP	15 February 1994	Secondary
	FBIS-AFR-92-070	Voice of Ethiopia Network	10 April 1992	Secondary
	FBIS-MEA-85-078	Der Spiegel	23 April 1985	Primary
	FBIS-AFR-91-036	Paris AFP	22 February 1991	Secondary
	FBIS-AFR-95-070	KTN Television Network	12 April 1995	Secondary
	FBIS-NES-95-168	Al-Musawwar	30 August 1995	Primary
	FBIS-NES-88-138	Radio of the SPLA	19 July 1988	Primary
	FBIS-NES-95-219	Al-Hayah	14 November 1995	Primary
	FBIS-NES-90-191	Al-Ahram Weekly	13 September 1988	Primary
	FBIS-NES-90-191	Radio of the SPLA	2 October 1990	Primary
	FBIS-AFR-92-126	Le Monde	30 June 1992	Primary
	FBIS-AFR-92-072	Voice of Ethiopia Network	14 April 1992	Secondary
	FBIS-CHI-92-107	Xinhua	3 June 1992	Secondary
	FBIS-AFR-93-003	Radio Bostwana Network	6 January 1993	Secondary
	FBIS-CHI-92-166	Xinhua	26 August 1992	Secondary
	FBIS-AFR-93-181	Voice of Ethiopia Network	21 September 1993	Primary
	FBIS-MEA-86-041	Paris AFP	3 March 1986	Primary
	FBIS-CHI-95-007	Xinhua	11 January 1995	Secondary
	FBIS-AFR-91-084	Nairobi Domestic Service	1 May 1991	Secondary

	FBIS-AFR-93-124	MENA	30 June 1993	Secondary
	FBIS-AFR-94-070	Al-Hayah	12 April 1994	Primary
	FBIS-SOV-87-052	Al-Anba	18 March 1987	Primary
	FBIS-EAS-92-057	KYODO	24 March 1992	Secondary
	FBIS-AFR-90-012	KNA	18 January 1990	Primary
	FBIS-AFR-89-115-S	Marches Tropicaux et Mediterraneens	16 June 1989	Secondary
	FBIS-AFR-90-056-S	Africa Newsfile	22 March 1990	Primary
	FBIS-AFR-90-220	The Jerusalem Post	14 November 1990	Primary
	FBIS-SOV-84-184	Izvestiya	20 September 1984	Primary
	FBIS-MEA-85-213	Domestic Service	4 November 1985	Secondary
	FBIS-NES-91-195	MBC Television	8 October 1991	Primary
	FBIS-NES-94-004-A	The Guardian	6 January 1994	Primary
	FBIS-AFR-93-082-A	Jenue Afrique	30 April 1993	Primary
	FBIS-NES-96-028	Al-Watan Al-Arabi	9 February 1996	Primary
	FBIS-NES-93-066	Jordan Times	8 April 1993	Primary
	FBIS-MEA-85-034	Radio of the SPLA	20 February 1985	Primary
	FBIS-MEA-86-066	Radio of the SPLA	7 April 1986	Primary
	FBIS-MEA-86-045	Al-Ittihad	7 March 1986	Primary
Ethiopia	FBIS-AFR-89-238	Paris AFP	12 December 1989	Secondary
	FBIS-EEU-88-028	Ljubljana DELO	4 February 1988	Primary
	FBIS-SSA-74-081	Paris AFP	23 July 1974	Primary
	FBIS-AFR-89-096	Rome L'Espresso	7 May 1989	Primary
	FBIS-SOV-85-030	Moscow Sovetskaya Rossiya	9 February 1985	Primary
	FBIS-MEA-85-030	Addis Ababa Domestic Service	9 February 1985	Primary
	FBIS-AFR-89-211	Addis Ababa Domestic Service	31 October 1989	Primary
	FBIS-MEA-86-160	Hamburg Der Spiegel	18 August 1986	Primary
	FBIS-AFR-89-130	Addis Ababa Domestic Service	1 July 1989	Primary
	FBIS-SOV-87-052	Kuwait Al-Anba	14 March 1987	Secondary
	FBIS-MEA-85-178	Addis Ababa Domestic Service	12 September 1985	Secondary
	FBIS-MEA-84-015	Paris AFP	19 January 1984	Primary
	FBIS-SOV-88-067	Moscow TASS	6 April 1988	Primary
	FBIS-WEU-88-070	Roma ANSA	12 April 1988	Primary
	FBIS-SOV-89-100	Moscow Krasnaya Zvezda	23 May 1989	Primary
	FBIS-MEA-86-041	Paris AFP	2 March 1986	Primary

	FBIS-AFR-89-117-A	London African Business	1 April 1989	Secondary
	FBIS-AFR-87-212	Addis Ababa Domestic Service	31 October 1987	Primary
	FBIS-SOV-84-184	Moscow Izvestiya	18 September 1984	Secondary
	FBIS-AFR-89-172	Addis Ababa Domestic Service	31 August 1989	Primary
	FBIS-AFR-89-229	Paris AFP	29 November 1989	Primary
	FBIS-SSA-74-133	Paris AFP	7 October 1974	Secondary
	FBIS-MEA-84-182	Addis Ababa Domestic Service	6 September 1984	Secondary
	FBIS-MEA-84-059	Khartoum SUNA	25 March 1984	Secondary
	FBIS-SOV-87-180	Moscow Pravda	11 September 1987	Secondary
	FBIS-NES-88-223	Beirut Al-Safir	16 November 1988	Secondary
	FBIS-SAS-86-247	Tehran Keyhan	24 December 1986	Secondary
	FBIS-MEA-85-078	Hamburg Der Spiegel	22 April 1985	Secondary
	FBIS-WEU-85-228	Paris AFP	25 November 1985	Secondary
	FBIS-APA-84-231	Tokyo Kyodo	29 November 1984	Secondary
	FBIS-AFR-89-115-S	Paris Marches Tropicaux et Mediterraneens	31 March 1989	Secondary
	FBIS-SOV-82-163	Moscow Sotsialisticheskaya Industriya	17 August 1982	Primary
	FBIS-MEA-84-221	Addis Ababa Domestic Service	12 November 1984	Secondary
	FBIS-AFR-89-138-S	London West Africa	22 May 1989	Secondary
	FBIS-LAM-86-026	Havana Domestic Service	4 February 1986	Secondary
	FBIS-NES-88-138	Clandestine Radio of the SPLA	13 July 1988	Secondary
	FBIS-NES-88-177	Cairo Al-Ahram	10 September 1988	Secondary
	FBIS-EEU-89-126	East Berlin Neues Deutschland	23 June 1989	Primary
	FBIS-APA-78-013	Seoul The Korea Herald	19 January 1978	Secondary
	FBIS-LAM-85-034-A	Havana Television Service	16 February 1985	Primary
	FBIS-EEU-84-229	East Berlin ADN International Service	22 November 1984	Primary
	FBIS-EEU-85-081	Budapest Nepszabadsag	23 March 1985	Secondary
	FBIS-MEA-74-047	Rabat MAP	5 March 1974	Secondary
	FBIS-LAM-85-038-A	Havana PRELA	22 February 1985	Secondary
	FBIS-EEU-79-086	Belgrade Tanjung Domestic Service	1 May 1979	Secondary

	FBIS-WEU-84-244	Paris Domestic Service	16 December 1984	Secondary
	FBIS-EEU-77-231	Tirana Domestic Service	29 November 1977	Secondary
	FBIS-EEU-88-119	East Berlin Neues Deutschland	10 June 1988	Secondary