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국제학석사학위논문

**Beyond the Ethnic Battle in Darfur:
Considering the Water Explanation to Conflict and
Resolve**

다르푸르의 민족 갈등을 넘어서:
물의 설명을 중심으로 갈등과 대책 방안제시

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Master's Thesis

**Beyond the Ethnic Battle in Darfur:
Considering the Water Explanation to Conflict and
Resolve**

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Graduate School of International Studies

International Studies, International Cooperation Major

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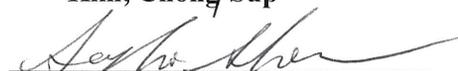
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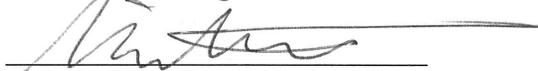
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Abstract

Beyond the Ethnic Battle in Darfur:

Considering the Water Explanation to Conflict and Resolve

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The primary intent of this thesis looked to identify some of the greater issues that have impacted the country of the Sudan, in particular its most-Western Region of Darfur. Although research on the Darfur conflict have been extensive since the beginning of its contention, it is seen that there are still lots of incomplete areas with previous research that don't fully explain the struggle. This limitation meant that there was a need to augment current findings on conflict in Darfur. Thus, the research behind this thesis seeks to look at several arrays of impacting components that help further understand how the region was negatively affected, while using the *Mary Douglas Model of Group & Grid* as a framework to show how an alignment of separate factors in Darfur triggered conflict. Other variables that were previously unconsidered such as land rights and water scarcity were

included to be examined. To analyze whether resources were significant could help further explain Darfur and its resolve.

Keywords:

Conflict, Variables, Land Rights, Water Scarcity, Resources

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List of Abbreviations

AU – African Union

CAR - Central African Republic

DDPD – Doha Document for Peace in Darfur

ICC – International Criminal Court

ODI – Overseas Development Institute

SPLA/M – Sudan People’s Liberation Army/Movement

UN – United Nations

UNEP – United Nations Environmental Programme

UNHCR – United Nations High Commissioner for Refugees

UNICEF – United Nation’s Children Fund

I. Introduction

Historically, the world has seen more conflict than peace. Conflict is a result of a vast array of variables that are problematic. Not only is conflict destructive, but to understand conflict is also taught on how conflicts can be prevented. Thus, the importance of conflict on comprehending differences in an already complex world needs to be considered. Contemporary society is paved by how conflicts have paved our history.

Like most conflicts in history, no conflict has been more prevalent than those for resources, especially land and water. Water has always been considered with much importance, as it is also required for human survival. Land was fought for to expand the power of kingdoms and to increase influence upon the surrounding region. The reason for such conflict, let alone the going power struggle between states was the access to water. Having access to water implied economic privileges, or to the potential the resource provides. Here history has shown that for a state to go into conflict for specific resources meant that they were highly valuable and states were willing to take such risks.

The level of resource availability on the planet is becoming increasingly limited. It is started to become more and more difficult to provide for, especially with growing demand and with increasing scarcity, the potential for conflict has

become a real possibility. States, multinational corporations and simply humans alike require water to survive and without the right supply being distributed to the respected areas, the creation of tension and ultimately conflict is foreseeable. The availability of the resource, the equal distribution of it and the culture a society is built on helps prove the gauge of violence. If it is done well, conflict is subdued.

The culture that a state is built on helps in better comprehending how a resource is utilized and how it is shared. Because culture is received through a process of transfer, the ideology a state is built on remains steadfast in its beliefs. Therefore, the state structure remains. This structure includes the state government. How a government views its relations with its people and certain groups helps define its areas of interest. The level of interaction between the state, its culture and how defines its people shows a lot about conflict. Culture also defines how a conflict is grown and if a conflict is grown, the culture is similarly impacted.

The thesis will therefore look at how resource and social factors most consistently led to the buildup of conflict within the Darfur, and how these factors were supported by the absence of culture. Secondly, the thesis will examine how the alignment of partnerships between groups within the society creates risk, disheveling a stable region into one of conflict. The thesis will begin by first providing a brief narrative on the background to the Sudan before indulging deeper into the content of its research.

II. Background

Conflicts in the Republic of the Sudan (herein referred to as the Sudan) have been misrepresented. The factors that have been considered the main variables to the continued rift between the North and South states have also remained static. Moreover, the Sudan is a complex country, providing extra complications to the conditions already affecting the conflict. With a population of nearly forty million people and inhabiting several different ethnic groups and regional dialects, this diversity clearly makes it difficult to explain any conflict in the Sudan, in a simple cultural, ethnic or racial term. The problems go further beyond simple terms.

Darfur has been considered an “Ethnic War,” or *Genocide* since the breakout of the conflict in 2003. Recently, other elements in addition to the elements noted above have been considered. Additional factors like *Climate Change* and *Natural Resources* have been considered as variables to the conflict in Darfur, citing an importance of *water* on the existing ethnic rift between groups residing in Darfur. With Darfur being entitled as the 1st Climate Change War, it has become increasingly important to classify the important “social” conditions to conflict, and the underlying measures (environment-induced) that led to these increased tensions. To start, we will need to consider the history of the state itself

and the interactions between its people before indulging into the climate change/natural resources factors and land to conflict.

2.1 The History and People of Darfur

Darfur, which is Arabic for “Land of the Fur” belongs to an array of different ethnic groups who self-identify themselves as either Arabs or Black Africans.¹ Furthermore, these different groups are self-identified as Fur, Zaghawa, Masalit, Tunjur, etc., whom all use Arabic as their lingua franca, in addition to their use of local dialects. All people in Darfur are also Muslim, as it is also the state religion. The Arab Leadership in the Central Government at Khartoum sought to forge the Sudanese nationality as ‘Islamic’ with an ‘Arab’ identity. Even though a wide array of differences exists in the Sudan, Darfur has rich cultural and ethnic diversity in contrast to other regions of the country. “The Darfurian cultural consciousness is full of principles that encourage individuals and groups to live in peace, as hundreds of Africans and Arab tribes and other ethnic groups have lived together for centuries” (Ibrahim, 2013).

The population of Darfur has seen a visible and rapid form of population growth, “increasing from 1.3 million in 1973 to an estimated 7.5 million people

¹ Black Africans are also considered as “Non-Arabs”

today” (Lind and Nicol, 2012).² “It is composed of 170 tribes and ethnic groups unequally distributed across the region” (Ibrahim, 2006). “The population as such is divided into traditional farmers, agro-pastorals and pastoral groups” (ibid). “The camel herders live in the arid northern part, these are namely northern *Rezaigat* and *Zayadiya* who are from Arab roots, the *Meijob* and the *Zaghawa*, who are from African roots” (Ibrahim, 2013). “The central area is habited by indigenous farmers and agro-pastorals citizens and the southern rich savannah is habited by Arab tribes such as *Rezaigat*, *Habbania*, *Taaisa*, *Bani Balba* and *Falatta*” (Michel More, 1932). The remaining are traditional farmers, whom are Black African tribes. Together, Darfur has the second highest population density with its population representing roughly 23% of the Sudan state.

2.2 Geographical Aspects of Darfur in the Sudan

The Sudan is located just west of the Horn of Africa, in which the country is surrounded by Egypt, The Red Sea, Eritrea, Ethiopia, Chad, Libya, the Central African Republic (CAR), and the newly formed Republic of South Sudan (Figure 1). Darfur, situated in the very Western part of the Sudan, is a land-locked region bordering Libya in the North, Chad in the West, the CAR in the South-West and

² Sudan Central Bureau of Statistics, Fifth Population and Housing Census (2008).

South Sudan in the South. Inside Sudan, Darfur borders its three central states: the Northern State in the North, North and South Kordofan in the Central-West, and the re-established West Kordofan³ located within the South Kordofan state.

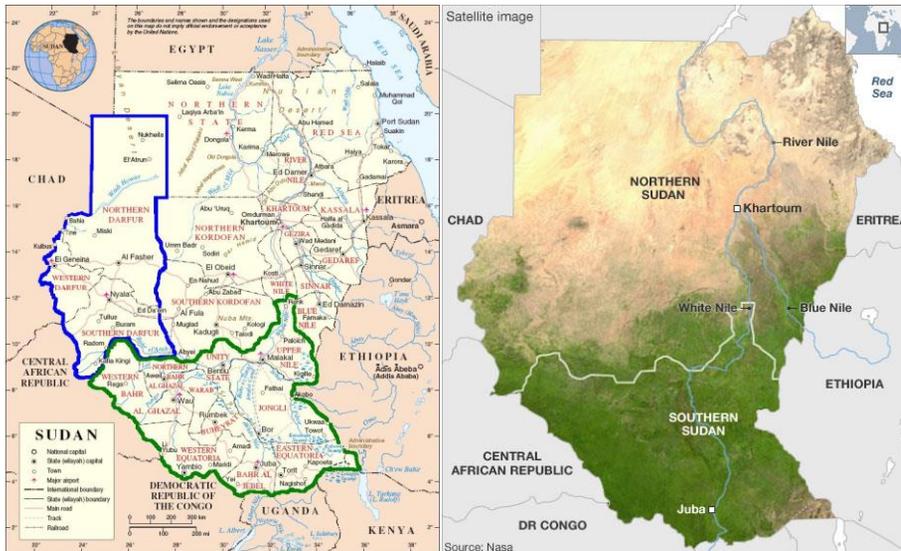


Figure 1 – Map of Sudan, South Sudan and the Province of Darfur

Darfur is divided into five administrative states, which are defined as North-, West-, Central-, East-, and South Darfur, with each state having its own respective capitals. El Fasher (North), Nyala (South), and El Geneina (West) are the administrative capitals of its respective regions and together represent about half the population living within the three states. Following the recent *Peace*

³ The Sudanese President Omar Hassan al-Bashri has endorsed the final status of the three Kordofan States by reinstating West Kordofan State.

*Agreement*⁴ put forth, the Sudanese President Omar Al-Bashir issued degrees creating two new states (as previously mentioned, the states of Central- and East Darfur) on the 10th of January, 2012. The new capitals for these newly admitted administrative states were announced as El Daein (East) and Zalingei (Central) (Sudan Tribune, 2013). The current administrative structure still exists today with the central authority being Khartoum, the capital of Sudan. However, due to lack of recent figures and with the creation of East- and Central- states being very recent, Darfur (in this thesis) is referred to in the three former states instead of the newly established five states. “The distribution of population is 25% living in the North Darfur state, 27% in the West Darfur state, and 48% in the South Darfur State” (UNICEF, 2011a; UNICEF, 2011b; UNICEF, 2011c); also, the movement patterns within Darfur makes it difficult to verify exact population estimates for the respective regions. The following figures above are therefore, estimates based on the residing populations.

⁴ The Doha Document for Peace in Darfur (DDPD, 2011), signed between the Sudanese government and the ex-rebel group Liberation and Justice Movement (LJM) in a bid to end the eight-year conflict in the region.



Figure 2 – Darfur’s Administrative States

As for the Darfur region itself, it is located along the Sahel belt⁵. “The Sahel belt is a semi-arid climatic zone that stretches across the southernmost extent of Northern Africa between the Atlantic Ocean and the Red Sea” (Bauschad, 2013). It is also regarded as a transition zone in Africa that connects the Sahara Desert to the north and the Sudanian Savanna to the south (Wikipedia). Darfur is further characterized by three different climatic zones, which span from the Sahara in the north, over the Sahel in the middle and towards a sub-Saharan tropical climate in

⁵ The Arabic World *Sahil* (ساحل) literally means “shore, coast,” describing the appearance of the vegetation found in the Sahel as being akin to that of a coastline delimiting the sand of the Sahara.

the south. Furthermore to the comprised climate zones, the Darfur landscape is seen as seven different areas, which are as follows: “the volcanic mountainous area (focal point of conflict), the basement complex plateau, outcrops of Nubian Sandstone, wind-blown sand sheets, stabilized qoz sand sheets,⁶ alluvial areas in wadis⁷ and drainage basins” (Morton, 2005). The different landscapes are affected by the different climatic conditions, which affects water levels in each of the respective areas.



Figure 3 – Map of the Sahel Belt

Water is of particular importance for any region as it provides the necessary means for the population to sustain livelihoods. The amount of rainfall in different

⁶ Is created by the erosion of Nubian Sandstone

⁷ Wadi is referred to the valley that remains dry except during the rainy season and same for the valley that runs through the valley.

climatic zones of Darfur depends on the geographic conditions and also the *Sea Surface Temperature*⁸ variations that affect the level of rainfall. Historically, Darfur has low and variable rainfall patterns over its years on record, with brief periods of significant water shortage in the amount of average rainfall. However, contemporary patterns show that average levels of rainfall are not relational with historical patterns and periods of drought as they should be. For one, rainfall quantity has increased significantly when going from North to South of Darfur, thus implying that there is less annual rainfall annually for El Fashar (North Darfur) than in Nyala (South Darfur),⁹ with the pattern increasing over time. The phenomenon of recovering the amount of rainfall lost has become difficult with the high variability in weather patterns, which has been negatively impacted by climate change (UNEP, 2008); the increasing level of drought over the years also brings negative effects to the surrounding environments. Hence, climate change may be one important element of the civil conflict that has gone by un-noticed.

2.2.1 Global Trends in Present and Future Water Use

Although the majority of Earth is water, the portion of fresh water that is available for human use is scarce. To specify in more detail, 97.4% of the water in

⁸ The Water Temperature close to the Ocean's Surface. Air masses in the Earth's atmosphere are highly modified by Sea Surface Temperature within a short distance of the shore.

⁹ Refer to [Figure 1] for Topography.

the world is salt ocean water, leaving only 2.6% (2% in icecaps and glaciers, 0.6% in the hydrological systems) of fresh water resources to be available to the general public for use (Allen, 2002). The distribution of global reserves are also unequal among regions and populations. Along international discourse, “fresh water is the only water that is taken into account when discussing water resources” (ibid); moreover, the human consumption and gathering of water resources is estimated to be divided into the following categories: agriculture at 89%, 6% for reservoir use, 3% for industrial use and finally the remaining 2% to be used for municipal waters.

With the global population growing by the day, and with resources becoming increasingly scarce, it is expected that future demand for fresh water will increase. Based on estimates by the United Nations on population growth, it is estimated that by 2050, the world’s population will hit ~9.3 billion people compared to the 7.2 billion people that was marked for in the year 2011, with the population expected to increase by 1 billion over the next twelve years.¹⁰ “Although population growth has slowed for the world as a whole, developing countries, especially in Africa, are still growing (too) rapidly” (Wu, n.d.), as new information shows higher fertility rates (up 5% per women) in the Sub-Saharan region. Population is very relevant, especially when it is regarded to the “water” question because not only do people need water to drink, they also need to be fed

¹⁰ Population division of the department of economic and social affairs of the United Nations Secretariat, ‘World Population Prospects: The 2012 Revision. <http://esa.un.org/undp/wpp/index.htm>

and water is vital for agriculture. Other factors like industrial usage of water (or Virtual Water¹¹) and factors from climate change will cause additional stress to current and future demands and supplies. Darfur, in this case, is no exception as is argued by the current conflict.

2.3 Social Causes to the Conflict in Darfur

In 2004, Darfur was described by the United Nations (hereby referred to as the UN) and by prominent diplomats of the West and Africa as the world's worst humanitarian crisis. The UN estimates that the Darfur conflict will have made about 2.5 million people displaced, with a vast majority of the people dependent on international aid for survival. The Darfur region is a difficult environment to survive in even without its worsening environmental conditions. The root causes of the brutal conflict that transpired is said to be a struggle between Darfur and the Islamic government of the national capital, Khartoum. The struggles between the two sides are various, "comprising of religion, local perceptions of race and social status, economic exploitation, and colonial and post-colonial interventions" (Barnard, n.d.); and not a single element on its own is able to explain the crisis.

¹¹ Virtual Water is the amount of water used in the production process of an agricultural or industrial product.

Although a variety of factors are in play that led to the rise of the conflict in Darfur, clearly the level of diversity in Darfur and between the internal states of the Sudan make it increasingly difficult to simplify. Moreover, the conflicts that have taken place in the Sahel region since the 1970s clearly show that political and human factors are the key to understanding most and if not all wars. Hence, the conflict in Darfur is again, no exception as the current situation has placed stress on social relations.

2.4 The Resource Wars (Water) and Considerations

History teaches that Climate Change situations, i.e. warmer periods, have meant fewer wars. The reason behind it is simple: “a colder climate meant reduced crops, more famine and instability” (Richard & Wagner, 2010). However, variations of the temperature were not considered a root cause of conflict in Darfur because of its geographic location. It is believed that a lack of natural resources like water, especially in an environment that already lacks it, is bound to have increased cooperation among the people in the residing region. The history of Darfur shows this sort of cooperation but correlation of history does not imply causation, nor on how responses to similar situations are taken. All in all, although lacking resources are not considered the root cause to conflict, Darfur is still

portrayed as the poster child of *Climate Conflict* regardless.

“Of course, some local changes of the climate can have an impact on the stability of societies and thus increase the propensity to collective violence, generally in a marginal way and mostly in developing countries” (Tertrais, 2011). Such is the case for droughts in countries which are heavily dependent on rain-fed agriculture (Miguel, 2004). In Darfur, political and human factors are involved that led to the conflict, and affluent resources are a problem. The Sudan is a resource-rich country. Resource-rich countries are more likely to be involved in conflict for oil, minerals, etc. which are revenues that can fuel civil conflict.¹² Therefore, the Darfur outbreak which began in 2003 cannot be considered only as genocide and corruption, rather the resource developments are linked, climate is a factor and the study will attempt to show how these factors, especially water, was an important variable in the conflict.

In order for the natural resources element to be considered into the conflict equation, the historical aspects of the Sudan need to be examined and determined first, before any analysis is to be accepted. As Collier & Hoeffler (2004) implies, greed and grievances lead to conflicts within societies.

¹² Mention from “Climate Wars” in the Economist Magazine

III. Literature Review

Darfur, at its core, is a conflict of insufficient rainfall

- Jeffry Sachs

3.1 Scholar's Approach

The crisis that broke out in Darfur is considered as one of the world's most significant conflicts. Since fighting broke out in 2003, several different explanations provided by organizations and scholars have tried to disclose the reasons for the conflict. However, the wide array of explanations that led to in-depth research on certain areas of importance have excluded other potential causes from discussion. In short, the issues at conflict as acknowledged by scholars are defined as by (a) Climate Change (Land and Water), (b) Genocide (Ethnic), (c) Corruption of Government (The unequal distribution of wealth and power), and (d) Religious (Muslim vs. Christians), in which all have played a role in leading to the current conditions in Darfur; the high numbers of deaths and conflict-induced human displacement are also violations of the international social rights in place.¹³ The conflicts in Darfur have thus been driven by highly complex social conditions

¹³ UNHCR

that are not simple to solve, as scholars have shown with their research.

The United Nations back in 2003 raised an alarm on the crisis on Darfur, issuing a response by the International Community to find a lasting resolution to the problem (UN Department of Public Information, 2007). The United Nations acknowledged the violation of social conditions that have resulted from this conflict. With figures provided by the United Nations, more than 200,000 people are estimated to have died and at least 2.3 million have been displaced from their homes since fighting broke out (ibid); the murder of civilians and the rape of women and girls have also been wide-spread and thus, there was a necessity for urgent action. To relieve the tensions of conflict, UN Secretary-General Ban Ki-Moon pursued a political settlement to the crisis in Darfur as ‘top priority,’ but other scholars and organizations view the conflict to be much more complicated in scope than to be simply settled by a political settlement. United Nations Security Council Resolutions, Sanctions and Peacekeeping forces alone won’t be enough, as the following quote already conveys: *There may be no water, but the province was awash with guns*. This conflict is not simply a conflict. The argument shows that water is significant here and peacekeeping won’t bring water to the dry environment, nor will sanctions and resolutions. Here, the violations of social conditions have only helped overlook other important areas that need consideration.

While non-environmental causes of the conflict in Darfur are noted, water issues are also important variables in the conflict. “Influential voices such as those

of United Nations Secretary General Ban Ki-Moon, former Vice-President of the United States Al Gore, the United Nations Environment Program, Columbia University Professors Jeffrey Sachs and Mahmood Mamdani, and Stephan Faris, writing in the Atlantic Monthly, have all asserted or implied that the Darfur conflict is the result of a climate crisis.” (Kevane and Gray, 2008; Gore, 2006; Sachs, 2006; Faris, 2007; Mamdani, 2007; Moon, 2007, UNEP, 2007). The challenges in Darfur are widespread because the conflict is not fueled by a singular event and factors by cause-comparison differ in significance based on effect. For example, the Stern Report in 2007 argues that the Darfur conflict broke out as a result of long periods of drought, in which the impact of climate change has had negative consequences towards the economics of the region. Thus, although climatic conditions have been acknowledged by notable scholars and (Western) Leadership, the factor of climate change have not been considered greatly yet. Michael Kevane and Leslie Gray (2008) further noted the absence of infrastructure for accurate and sufficient data analysis - “good time series data consumption and assets are not available for the regions of most interest, namely poor and conflict-prone countries in Africa.” For this reason, the limited research on the robust livelihoods of the Darfur people being affected by the level of water availability in the region clearly lacks in detail when compared to the covered social factors. How and to what extent are they affected by water is the question.

There have been different findings. Several scholars have referred to the

Darfur conflict with differing viewpoints on the effects of drought on the populations of the region. De Waal (1989), for instance, argued that “the Darfurian populations were quite resilient to droughts and even though droughts are correlated with economic loss,” that the “populations located in areas where average rainfall were low and variability was high experienced more stable incomes in the event of droughts than other Sahelian populations” (Reardon *et al* (1988). However, the following years have shown a rapid loss of assets following the 1990 drought in Darfur, as Gray and Kevane (1993) took issue with as a problem. This particular characterization focused on Central Kordofan as a potential reason for the loss. This problem became an issue when Mortimore (1989), Adams (2001) and Raynaut (2001) concluded that “populations residing within the Sahel region are far more adapted in terms of maintaining incomes and livelihoods than originally imagined,” and thus, the loss of assets mentioned previously was a condition not foreseen before by the Darfurians. Parallel research in other regions of the Sahel also show correlation with Darfur, leading to extreme environmental conditions affecting Central Kordofan as a focal point to conflict.

Most research and findings on drought seem to ensure that drought and resource limitations equate to conflict. Although the general suggestion may directly link environmental stress with violent conflict, there has been little findings that suggest the possibility of this type of correlation existing. Counter arguments have been raised, with history showing warmer periods to be more

peaceful than colder periods (Tertrais, 2011). This contradicts the significant link between warfare and warming. Therefore, the climate conditions (in the context of Tertrais) are not essential factors that explains collective violence, but to claim that climate change may have an impact on security is evident – but it does not make it meaningful. Many scholars consider Darfur as the poster child of “climate conflict” but some consider it a flawed concept. Finally, the ‘Water Wars’ theme has gained popularity since the 1980s, but many are skeptical of it ever happening.

The covered literatures above show several areas of analysis, disagreement and limitations. Whether or not “the environmental security literature holds true that environmental stress will alter the political stability of underdeveloped states and make political violence more likely” (Baechler, 1999; Homer-Dixon, 1999) will be discussed in the Darfur Case Study, with intent to answer the research question:

Were Land Rights and Water Scarcities both factors in Darfur’s Conflicts?

3.2 Water and Conflict

States, most commonly, own the water within its boundaries. However, no state should own the water because it is considered a public good for all. So even though a state can own the lands on both sides of the river, they should not own the water, and therefore, the state is considered to be responsible for the water

management of that country. Management is important for a vast array of reasons but to list a few: (a) the quality must be maintained because once water is polluted, there is no substitute (Wolf, 1995), (b) it is vital for all the inhabitants of the state and their lifestyle (Lee, 2009), (c) the quantities of water available to all is limited¹⁴ and (d) it is important for the development of the state. Water should therefore be managed and distributed by the state to the required areas. But the “governments that deal with water resource management are confronted with different problems when handling water resource distribution” (Gelder, 2012), as distribution is also affected by different seasons and climate change. But all-in-all, the management, fair distribution and standard of water should be managed by the state for its people as a public good.

In 1991, Joyce Starr published the article ‘Water Wars’ in *Foreign Policy*.¹⁵ In the article, Starr argued that the growing water scarcity in the world would eventually lead to armed conflict with nations fighting a vital, increasing scarce resource. The Middle East was especially in danger because the region is one of the most arid regions of the world and is over-using its water supply and exhausting its ground resources; trans-boundary water systems are also becoming increasingly problematic. The Middle East, for instance, was and is fraught with international conflict and has a high rate of interstate violence. The First Gulf War (1990-91)

¹⁴ Water can be traded on the international market as a resource.

¹⁵ Starr, ‘Water Wars,’ 17-36

was considered a resource war by some politicians and scholars. Saddam Hussein tried to grab the Kuwait oil reserve and America stepped in to defend its strategic regional partner and economic interests. The fact that a resource war had already occurred with a military response says that political tension in the region would make another conflict a realistic possibility. Shared transboundary fresh water resources in the region can easily trigger conflict and turn water stress into a water war.

There are a vast number of scholars who have written about Water Wars Theory. Water has the potential to lead a resource conflict when the specific water resources have a great economic and political value to the nation (Gleick, 1993).¹⁶ This value, as determined by Gleick, are determined by different factors as follows: the extent to which the water supply is shared, the degree of scarcity and the availability of water resources. The base of these factors are not limited to the Middle East. Water conflict is considered a real danger to all regions of the world, although other regions are considered more at risk than others. For the purposes seen, if water is considered an important commodity, the politics of the region will seek security of the resource, and will presumably defend with force, if needed. As many nations share transboundary water sources, again, the potential for water conflicts remain as water sources continue to dwindle and resources become increasingly limited.

¹⁶ Is a scientist working on environmental issues, economic development and international security

Even though several explanations point towards water possibly triggering future conflicts, one definitive reason can explain why the occurrence of the water war is unlikely: cost. War is expensive and only if water is valuable enough will war be considered an option. For example, the First Gulf War in Kuwait cost approximately \$100 Billion USD and the Iraq War (2003-2010) totaled roughly \$1.1 Trillion, and these costs exclude the profits that could have been made with oil production. The cost of war is therefore too immense for a simple conflict to arise over water. However with changing times and changing quantities of available resources, the issue of water can very much become a reason for conflict in the future.

IV. Methodology

An answer to the research question will be sought via a cultural route to show how competing structures of social organizations assume to societal roles and risk; the core approach will examine the combination and integration of events that have taken place in Darfur to help understand how the perceptions of climate change have impact on the conflict. First off, there is an importance of culture to it, as culture is built on values nurtured by nature. “Culture is based on the unique human capacity to classify experiences, encode such classifications symbolically, and teach such abstractions to others” (Oltedal et al., 2004). This culture, in itself, is generally acquired through a process of transfer, by which an older generation induces and compels onto a younger generation to reproduce and continue. Consequently, culture is embedded in a person’s way of life¹⁷ through which the way of life is the central idea. This way of life and culture is best derived from Mary Douglas’s *Cultural Theory of Group and Grid* (1978) and indirectly shows how a society is built and functions.

Mary Douglas first developed the Group and Grid Theory as an instrument where the morphology of societies could be compared irrespective of

¹⁷ http://www.encyclopedia.org/html/section/culture_theatureofculture.asp

natural factors (Boholm, 1996). Douglas, here, made the distinction of cultural bias between two comparable hands: one being ‘shared values and beliefs’ and the other being on ‘patterns of interpersonal relations.’ Thompson et al. (1990) added on that “the way of life is also defined as a combination of social relations and cultural bias.” Thus, this approach is considered as a general theory of sociological understanding. “Cultural Theory is constructed according to tenets of positivistic reasoning, by way of deduction from a limited number of basic axioms, regarding human social beings and their interaction” (Boholm, 1996). This, more specifically, is highly determined by social and cultural adherence, which should be capable to predict and explain what kind of people will perceive which potential hazards to be how dangerous” (Wildavsky & Dake, 1990); or how certain decisions affect positivistic relationships. This method of interaction is therefore, good at measuring risk, the perception of possible risks and how the people act upon the world around them.

The Group-Grid Model will show how cultural variations affect human behavior. Here “the Cultural Theory aims at explaining how people perceive and act upon the world around them” (Oltedal et al., 2004). The theory claims that change to the above factors are largely determined by social aspects, cultural adherence and social participation. According to Douglas, these dynamics are defined by the Group & Grid, with four dimensions in a two-grid axis. The four groups are *Individualists*, *Egalitarians*, *Hierarchists* and *Fatalists*, and they each

have a self-preserving patterns of perception. Mary Douglas defines the Group & Grid as:

“The **group** itself is defined in terms of the claims it makes over its constituent members, the boundary it draws around them, the rights it confers on them to use its name and other protections, and the levies and constraints it applies. Group is one obvious environmental setting, but we seem unable to conceive of the individual’s environment if it is not a group of some kind” (Douglas, 1978).

“The term **grid** suggests the cross-hatch of rules to which individuals are subject in course of their interaction. As a dimension, it shows a progressive change in the mode of control. At the strong end, there are visible rules about space and time related to social roles; at the other end, near zero, the formal classifications fade, and finally vanish. At the strong end of grid, individuals do not, as such freely transact with one another. An explicit set of institutionalized classifications keep them apart and regulate their interactions, restricting their options” (ibid).

emphasize natural order and the preservation of lasting peace. All in all, these four categories help explain some of the reasons to Darfur's consistent conflicts, how they are built on fear and also show some scope limitations (section 4.2).

4.1 Qualitative Approach

In addition to Mary Douglas's Group & Grid Theory on Culture and Risk, the Darfur case will be compared with a wide array of literature. They seek to explain the history of the Sudan, Darfur, its relation to how its history is shaped by the interactions of pastoralists and nomads, the involvement of Khartoum, as well as the influence of climate change on the region. The review will comprise of past literatures, and the most-recent, available, accessible and complimentary data. Therefore, the literature based on this study will provide background knowledge in the respectable areas affecting Darfur, and will support the information needed to help the reader understand the basic conditions of the situation before indulging into the deeper findings of the research question.

The areas that are reviewed in more detail are the following: land right, water rights (especially water distribution and resource scarcity + *Water Wars*), government actions/decisions and the disparity of treatment between ethnic groups. These four areas (independent variables) will be compared with to understand how it shapes conflict (dependent variable) in the Sudan. Also, its relationship with the

Group & Grid model will show how the above four factors coincide with the *Individualist* and *Hierarchist* group alignment and how its relationship is intertwined to create conflict. Therefore, the *Individualist* and *Hierarchist* alignment will be analyzed.

<p>Fatalists (The mass of the Governed – “The Isolates”)</p>	<p>Hierarchists (Religious Institutions, Government – “The <u>Hierachists</u>”)</p>
<p>Individualists (The People – “The Markets”)</p>	<p>Egalitarians (Egalitarian and Environmental Principles – “Communitarian”)</p>

Figure 5 - Mary Douglas Group & Grid Alignment Comparison

4.2 Scope and Limitations

The root causes of the existing conflict in the Darfur region are wide and sparse. As mentioned in the *Background* section, the causes of the conflict are not one in singularity, rather they are built on a plethora of local, regional, national and international problems that led to the buildup of tensions. To have a general scope on the complex issue at hand, quotes from the following scholars give an indication to it. To list a few:

- *“Darfur is a typical North-East African Civil War, consisting of multiple overlapping conflicts interspersed with large-scale offensives by the government army and its proxies and rebels”* (de Waal, 2007).
- *“The Darfur conflict... has drawn in a complex web of local, national, and transnational interests, which play out in different types of conflict throughout the region”* (Young et al. 2009).
- *“More accurately, as the conflict is deeply rooted in poor governance, triggering unfettered institutional and geographic interactions, compounded by the socioeconomic catalysts of poverty, environmental degradation, etc., any long term solution must first address this issue since it bears the brunt of the cause”* (Suliman, 2011)

- “When asked about the fate of the surrounding Arab villages, he replied, “The people who were in the villages around us were the ones who were killing us, so how can they kill themselves?”” (Hagan & Richardson, 2009).¹⁸

There are limitations to this thesis. While most importance should be given to field work and interviews, the distance, area of research and insecurities to the local area have made it difficult to conduct. To complement the missing field work, a vast array of literature will try to compensate the missing areas.

4.3 Reason for Selection

Darfur was chosen as the site of study because the conflict is also considered as an initial indication of possible future conflicts that can result from Climate Change – Water-induced. “Darfur also provides a sound environment for investigating current African dynamics, which are becoming increasingly important at the global level” (Hippacher, 2012). Although situations in Darfur cannot be replicated to other parts of the globe, the situation looks at the concerns environmental degradation and climate change can have on the loss of resources that are required to sustain livelihoods and as Darfurians are known to be very

¹⁸ Eyewitness cited in *Darfur and the crime of Genocide*.

resistant to drought, how the effects of change can still fuel conflict. Therefore, understanding this case can possibly alleviate future conflicts, especially in Africa.

The Sahel region is no exception, as it has been a region prone to conflicts over the last couple of decades. The study of Darfur is now possible because of the technology that wasn't available in the past. Measurement of economic situations, political changes, changing environmental conditions, etc. are now more widespread. These new advances in technology can provide an ample amount of information that can help further comprehend the conditions affecting the region. These opportunities, with addition to the importance of this conflict and what it is accepted as, provides ample reasons for further study.

V: Case Study: Darfur

The causes of the Darfur crisis are far and wide. The war in Darfur which began in February 2003 was markedly different from previous conflicts that have affected the region, with no single cause that led to the outbreak of the conflict. By viewing the quotes listed below while considering the quotes mentioned prior, scholars and institutions have viewed the cause of the crisis in Darfur differently, which all-in-all is expected to show that each cause affects the other. This section will therefore look into the history of the Sudan, then examine the different factors to provide the necessary insight to hopefully answer the research question of whether land and water scarcities were critical factors in the Darfur conflicts.

- *“The conflict in Darfur has nothing to do with marginalization or the inequitable distribution of wealth. Inherently it is a struggle between the two factions of the Sudanese Islamist movement, the (opposition) Popular Congress part and the ruling National Congress (party)” (Suleiman, 2004).*
- *“...the prism through which the war is commonly explained – ethnic animosity between Arabs and blacks – may be less applicable than other factors, including the environment” (Perry, 2007 – Time Magazine).*

- *“In the decades to come, Darfur may be seen as one of the first true climate-change wars” (The Guardian, 2007).*
- *“There is a very strong link between land degradation, desertification and conflict in Darfur. Northern Darfur – where exponential population growth and related environmental stress have created the conditions for conflicts to be triggered and sustained by political, tribal and ethnic differences – can be considered a tragic example of the social breakdown that can result from ecological collapse”¹⁹*

- UN Secretary General Ban Ki-Moon

The Sudan inhabits nearly forty million people within an area of about one million square miles. Before South Sudan became independent²⁰ from the Sudan, the language profile in the Sudan was categorized by two major languages - Arabic and Dinka, and is followed by fourteen minor languages, divided into some 100 dialects. “Of these, nearly half are found with the Southern Sudan, representing one third of the country’s population, all residing within a quarter of its territory; while more than half are found spread throughout the remaining northern three quarters

¹⁹ Ban Ki-Moon cited in *Is Climate Change the Culprit for Darfur?*

²⁰ South Sudan became an independent state on 9 July 2011, following the South Sudanese Independence Referendum

of the country”²¹ (Thelwell, 1978). This level of language diversity gives emphasis on the ethnic diversity present in the region and its complications.

Several causes to conflicts in the Sudan are cultural, ethnic, religious and man-made, with all the listed factors having contributed to the buildup of tensions in some way or form. As Johnson (2003) further iterates: “Religion, local perceptions of race and social status, economic exploitation and colonial and post-colonial interventions are all elements in the Sudan’s current civil war, but none, by itself, fully explains it.” To understand the elements that affect the current situation in the Sudan, one must first understand the role of the historical-successive Sudanese states had in producing regional underdevelopment, racial and cultural antagonism. These will be looked at before indulging into the factors affecting the Darfur conflict.

5.1 The Historical Structure of North-South Relations

Everything started with the Sudan government’s violence towards Sudan’s southern state, now acknowledged as the new state of South Sudan. However, these conflicts are not recent. Conflicts have always had a place in Sudan’s history. The government in Khartoum has never been free from the impacts left from colonialist

²¹ The data on which the profile drew were incomplete, the population figures were outdated, and other factors lead to the increasing/decreasing number of languages.

policies and religious imperils, which have formally led Khartoum to find ways of securing its threshold on the peoples of the Sudan, after their independence. Although Khartoum's intentions cannot be acknowledged as 'cruel,' considerations are made to alleviate some of the blame by looking at how its history led to the composition of the current state of affairs in the Sudan. To answer the research question above will require the use of this analysis to provide additional clarity to the expected answer.

5.1.1 Before 1820

The development of the Sudan has been consistent over the course of its history with the state's economic, political and social construction being influenced by several different factors. "Early states along the Nile and across the east-west Sudanic belt (Muslim Era) defined the relationship between their own centers and the outlying region: from the hinterlands came the manpower, wealth and food surpluses on which the states built their power" (ibid). Furthermore, to maintain state power, "states depended in part on standing armies of slave soldiers, and as slave-raiding's were originally a state activity, each had its own hinterland from which it drew slaves and other resources" (Johnson, 2011).

For the states ruled by the Persian Dynasty and for those based along the Egyptian Nile Valley, there was a requirement of trade and exchange. This type of exchange, by way of conquest and raids saw Ethiopian slaves from Kush be moved

to the Persian Empire as part of the agreement. This arrangement of trade, known by the provisions of the ‘Baqt’ Treaty,²² began in 652 AD, in which the most important provision of the treaty guaranteed that 360 slaves per year were to be sent to Egypt for goods; also, slaves should never come from the very heart of the Kingdom itself, but from outlying regions subject to the state. “Although the exchanged slaves to Egypt were not always necessarily Nubian, in Egypt they were identified as Nubian regardless because they were identified as coming from *Nubia*” (ibid). Since this point in history, any term in correlation with the word Nubian, or (South) Sudanese (i.e. for Black African) entered colloquial Arabic of the Nile as synonymous with ‘slave’. This identity transferred to contemporary Sudan and culturally, it has become engraved in the people’s culture and lifestyle, creating an unequal approach to different ethnic groups.

- Surviving sources upon which present knowledge about the *baqt* rests were written from the perspective of the Muslims, and virtually none were produced by the Nubians.²³

²² Treaty between the Christian state of Makuria and the Muslim rulers of Egypt. The Baqt was signed after the 641 Muslim conquests of Egypt.

²³ This prediction was made on the fact that most contemporary sources about the *baqt* are Islamic and the Eastern Christians are not of *Nubian* descent.

The area now known as ‘South Sudan’ laid outside the radius of exploitation by the Kingdoms of the Nile during the time of the Muslim conquests to Egypt. Yet each state, or successor state during those times, had its own hinterland and thus, surrounding areas within its range were prone to raids. For example, the Darfur sultanate, established in the Western Sudan in the 17th century, raided mainly to the south in Dar Fartit, or what is now western Bahr al-Ghazal (Northern South Sudan). This area remained as their hinterland for bands radiating out of Darfur well into the 20th century. It was only in the 19th century that the whole of the Southern Sudan was opened up to the exploitation of a state centered at Khartoum, eventually leading to the rise of regional rifts.

5.1.2 Historical Disparities to Development After 1820

Even before the succession of South Sudan, the context of the Southern policy was different from Northern policies. Prior to the 1st and 2nd Civil Wars of the Sudan, a British-Egyptian conquest to Sudan took hold of the country from 1899 up until Sudan’s independence in 1947 and from there on, the context of policies in which both the North and South have lived on remained preserved. However, the South had a different set of policies than those defined by the North. It was recognized as *Southern Policy*, and declared that the Southern administration was developed along African lines and not the Arab line, further iterating the South’s intent of maintaining ties with British East Africa, and not the Middle East.

Unlike *Sharia Law*²⁴ that Khartoum preserved and hoped to implement country-wide, the rejection from the South led way to conflicts. Although *Sharia Law* is not controversial, it led to the implementation of the controversial Government-enacted Islamic law, which worked as an *Arab Ethnocentric Policy* that ensured Arab Leadership as untouchable. This created ethnic inequalities, resource inequalities and other inequalities that are discriminative in nature for the people not of Arab descent. The differences from this point forth were prevalent.

Islam was neither suppressed nor expelled from the South. Although Islam still exists in South Sudan, albeit it being in small pockets, the South has a more prevalent Christian influence than Islam. Initially, however, the Christian influence was not strong. It started when the government policy in the South allowed for the establishment of Christian missions in the South, and this all started during the Condominium Period.²⁵ “The main influence of Christianity came not in the number of converts, but in the subsequent strategic influence of its converts... achieved through their educational qualifications, and their role in administration and politics” (Johnson, 2011). Although the clashes between Northern and Southern groups did not need to happen, the fight over land and resources turned into the 1st civil war in the newly-independent Sudan. This also began development

²⁴ An Islamic Legal System derived from the religious precepts of Islam, particularly the Quran and Hadith.

²⁵ A Joint Authority exercised by Britain and Egypt during Anglo-Egyptian Sudan

disparities, as there has been unequal levels of wealth distribution and resource exportations. Ironically, the regions with the resources remained most poor, and when Khartoum took control of all resource exports and wealth did the tensions build. Almost all resources are located within the South Sudan, and by this account, exploitation and discrimination of the people always existed.

5.2 The Cultural Structure of Darfur

The Fur are the largest ethnic group living in Darfur. However, they have never comprised the majority of the Darfurian people because of the vast array of different ethnic groups that comprise the region. “Darfur is a region with very distinct ethnic groups, its own traditions and culture” (Gelder, 2012). But the ethnic boundaries were never impermeable. For instance, the main occupation for the Fur is farming and they are excellent farmers. But there are also ways for a nomad (Arab) to cross the ethnic frontier. For example, “a successful Fur farmer could invest his profit in cattle, and if his herd grew, it could have been more profitable for him to become a cattle-nomad. With the right cultural adaptations and marriages, his descendants would have become part of the Baggara (refer to Figure 5) ethnic tribe within a few generations” (O’Fahey, 2004). Thus, the ethnic boundaries present in Darfur are intermittent and flexible, rather than being permanent. “So even though the Darfur conflict is considered as highly racialized,

the differences between the ethnic groups in Darfur are based more on culture and the way of living than grounded in religion and race,” (Reyna, 2010) as displayed during Sudan’s Civil War. Some publications argue otherwise indicating the distinction between Arabs and African’s as one of the underlying (root) causes for the conflict.



Figure 6 - Map of Darfur's Ethnic Groups

Darfur is the only region in the Sudan that does not border the Nile. With the climate changing between the North and South regions and less rain fall

between the desert and savanna, the region has become increasingly volatile. Water access in Darfur is important for the survival of the people because the only two occupations in the Darfur area are farming and grazing and both require water use. Darfur is very dry, but the Darfurians have always been able to survive on their long standing cultural beliefs of shared habitation, all the while extracting an economic surplus even from harsh environmental conditions. But over the last fifty years, this started to change. Factors like population growth in the Darfur region, increasing desertification/diminishing land, climate change, weak institutions and a military coup are all expected reasons that built up tensions eventually leading to the 2003 breakout. Although the culture in Darfur has remained its course for centuries, these tensions removed the application of culture on cooperation. These areas will be examined more closely.

5.2.1. Population and Land

Darfur has faced exponential population growth. As previously mentioned, the population of Darfur in 1973 was estimated to be roughly 1.3 million people, compared to the 7.5 million that are currently living in the region (UNEP, 2008). With this six-fold increase of population in 35 years, and with the negative effect of changing environmental conditions on resources, the population has increasingly been in search for more food, water and livestock (Fabul, 2004). These historic growth rates imply that the Darfur region will be home to roughly 12 million

people before 2025, unprecedented numbers for the region; the demands from large populations translates into bad results, especially for Darfur because the region is ill-equipped to handle difficult situations; weak institutions and serious environmental degradation are equal factors of influence. With the population increasing and with larger families, the population growth in Darfur likely played an important role in fostering negative environmental practices in cultivation; farmland was used more intensely to provide food for the community, in which, this greater agricultural intensity led farmers to abandon practices that enable them to restore soil quality. The increased agricultural intensity led to soil depletion and combined with droughts and increasing desertification from the North, the land conditions grow increasingly unsuitable for cultivation. All in all with unsuitable agricultural practices, “the deforestation and shortened fallow periods, eventually led to declining crop yields” (Al Mangouri, 2004) and more problems following thereafter.

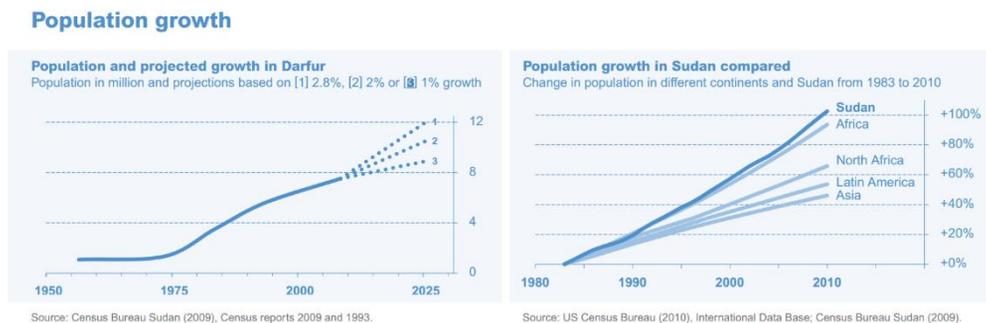


Figure 7 – Population Growth in Darfur and the Sudan

The progressive desertification of the Darfurian soil proved to be a great

threat for Darfurian livelihoods. This was not necessarily because of any famines or droughts that followed the desertification process, but rather because of the conflicts among the people living in the Darfur region. Although the ethnic groups of Darfur lived in peace for centuries, the level of conflict between farmers and cattle-nomads intensified over the years as increasing population and the ever-diminishing amount of grazable land quickened by greater agricultural intensity. “Over the years, conflict between nomads and farmers over grazing areas, watering holes and land became more frequent” (Mamdani, 2009). For instance, the possession of land in the Sudan is not personal and organized as is done in the Western world, rather it is organized by a system called *usufructuary* land rights,²⁶ or common ownership. This type of land arrangement means the nomadic tribes in Darfur are vulnerable because of their seasonal migrations around the lands. They do not use the land all year round and therefore, they do not have any legal position to the lands which they have migrated to for their animals to graze. Contrary to the nomad’s positions, farmer tribes settle on the lands in which they cultivate and use the land all year round, also indicating personal ownership with usufructuary rights. Thus, the usufructuary land system has led nomads and farmers to contest for their rights to the claimed areas.²⁷ Also, the level of response from the government to

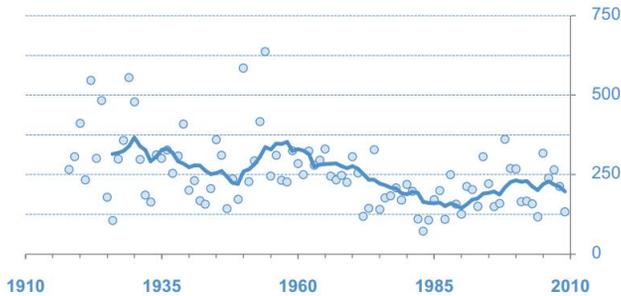
²⁶ The principle of usufructuary land rights means that the person who uses the land owns the land temporarily. I.e. uncultivated land is free for anyone to use.

²⁷ For many native cultures, land means more than property – it encompasses culture, relationships, ecosystems, social systems, spirituality and law.

resolve this issue was non-existent.

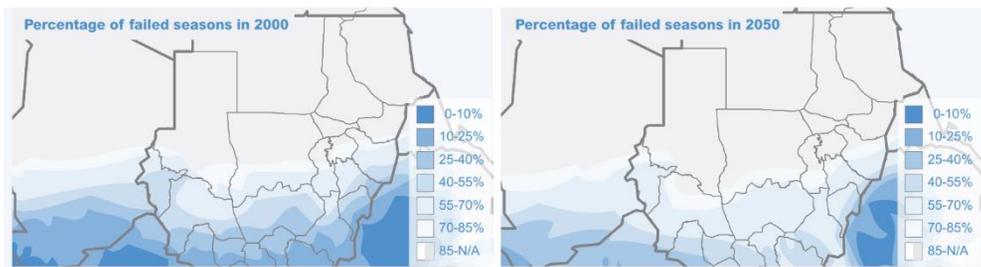
Climate change and rainfall

Annual rainfall in El Fasher, North Darfur (mm)



Source: UNEP (2010).

Figure 8 – Annual Rainfall Levels in El Fasher – North Darfur



Source: Adapted from ILRI/TERI, Mapping climate vulnerability and poverty in Africa (2006).

Figure 9 - Projection for Failed Seasons

Due to the impoverished environmental conditions, both farmers and nomads alike have problems with availability of arable land and water tables. However, due to the migration of nomads, and with an increasing population causing stress on the land, the southern states of Darfur have experienced increasing problems because the cattle-nomads of the North depend for their livelihoods and therefore, will endure on their seasonal migrations to the grazing areas in the South (Blackwell, 2010). Nomads do not use the lands all year round,

and they cannot ensure that the use of the lands are not damaged or destroyed after use, as the usufruct land system requires. The main conflict lies with the nomads being unassured that their grazing areas are not cultivated by farmers the next time they arrive the following season. The uncertainty is intensified by the lacking water resources that are available in the region, and with growing agricultural intensification, not only is the availability of land limited, the availability of water is in decline. Therefore, the agricultural expansion was a threat to the nomads (ibid.), and therein lies the conflict.

During a time when the climatic conditions were less forgiving, population growth and increased demand for natural resource heightened coincidentally. The Darfur region (especially the north) during the early 70s and early 80s were affected by drought, which led it to have an impact on a variety of areas such as human health, famished people and the degradation of soil quality. The limited water availability in the north led to the mass migration of people to the South. With the stress on the south Darfur environment already high, population growth, migration and the expansion of farmland in the milder-south increased pressure on one that is already stressed. It is estimated that in 1986 alone, even in a period that was only slightly dry (refer to Figure 10), saw an estimated 385,000 people migrate to south Darfur from the north (Mumdani, 2009). All-in-all and with reason, the water scarcity in the north led to mass migration. With the conflict between the people of north and south Darfur increasing and with less land

available, the tension between the Arab nomads and the Fur (African) farmers grew. These conflicts over time escalated to an ethnic conflict, with addition to all the above factors considered. But De Waal (1989) does argue that, “Darfur populations are quite resilient to extreme drought,” and this provoked a lively and continuing debate (Gray and Kevane, 1993).

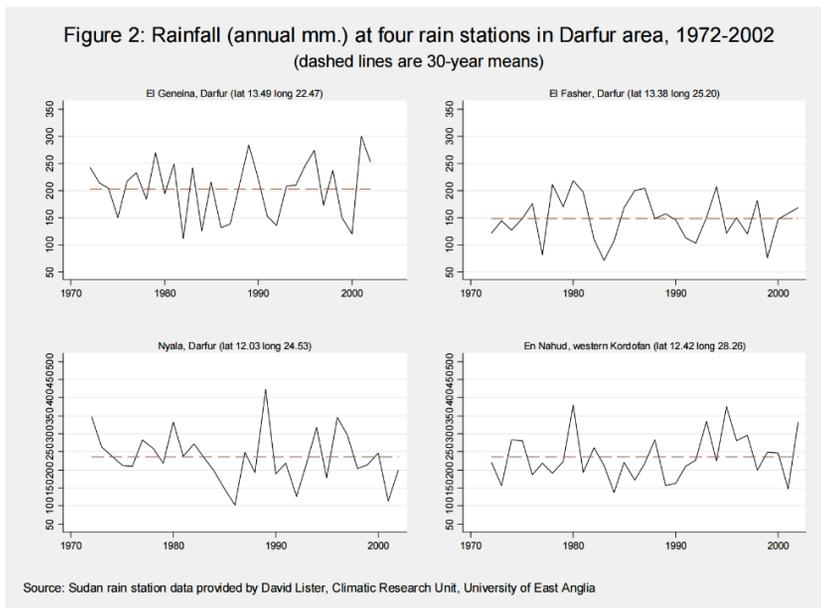


Figure 10 – Rainfall over 1972 – 2002

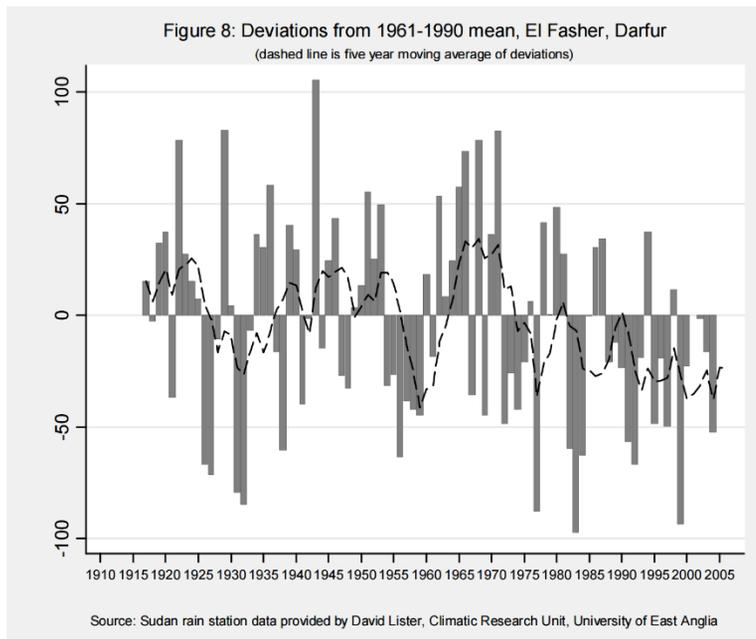


Figure 11 – Rainfall in North Darfur

5.2.1.1 Period of Cooperation to Confrontation (Case: Rezaigat Nomads)

“Prior to the period of persistent drought during the 1970s and 80s, the camel nomads had no serious problem maintaining their mode of living” (Mohammad, 2004). The relationship with the farmers during those times have been described as “symbiotic, complementary and of mutual benefit” (Suliman, 1997; Harir, 1994). That said, there was usually an exchange of goods and services between the nomads and farmers. Herders provided the farmers with milk and milk products; their animals were fed on the field stubbles, while fertilizing the soil with manure. As for farmers, particularly the Fur, provided the herders with agricultural

products, provided labor and also hired the camels for service (Harir, 1994). “These exemplary friendship ties had reportedly existed among Fur and Arab families, with the Fur entrusting their animals for herding to the nomads, and the pastoralists leaving some of their property with Fur friends”²⁸ (Faiq, 2003).

During a 20 year period, the Rezaigat camel nomads got involved in several violent conflicts with seven different identity groups residing within Darfur: the Beni Halbam the Dajo, the Bargo, the Bergid, the Fur, the Baigo, the Zaghawa and the Masalit. Several observations can be made regarding the camel nomads’ involvement in the violent conflicts.

The first conflict over the issue of land tenure and resources occurred with the Zaghawa in 1994. With land rights being the center of the conflict, the Rezaigat nomads believed that access to resources like water and pasture in the *dars* of other communities should be open to them. The arguing nomads raised claims to land ownership in the northern parts of Darfur, however, the Zaghawa argued otherwise. Secondly, the war that included the Beni Halba (during two periods: 1976 and 1982) can negate the assumption that ethnicity is the root cause of conflict. Both groups are the same ethnicity and again, the conflict was said to have been predominately over natural resources and its use. Nevertheless, Suliman (1997) is correct in making the point that “with persistent violent conflict and resulting killings, group identity itself could become a source of conflict in its own right.” The current

²⁸ Interview to Jammaa O. Faiq in the Nomadic People’s Report

warfare between the Fur and the Nomads is a case in point.

What led the nomads to suddenly become violent over time was not limited to a singular motive. The camel nomads' resorting to violence is also a fairly new phenomenon. During the colonial periods, and up to the 1970s, the Rezaigat nomads were rarely believed to be involved in ethnic conflicts; however, Beck (1998) identifies "three tribes from the northern fringes of Darfur who were part of the raiding system in the pre-colonial era: the Zayyadia, Zaghawa and the Midob". The Rezaigat were not mentioned. By looking at some of the internal and external factors in brief, can explain a few of the factors that may have led to the rise of such violence. Internally within the state of Darfur, the Sahelian droughts (lack of total rainfall) and the proliferation of arms building in the region is one reason for this; the others, which are external, are directed at Khartoum, in which its implemented policies led to all issues becoming bigger-than-it-needs-to-be issues. This suddenly became a big phenomenon and the reasons will be examined.

The internal – the Sahelian Droughts – were said to be dreadful. Although the people of Darfur were known to manage droughts well, the longevity of droughts and its effects have taken its toll on Darfur. "The supposed droughts led to environmental degradation, impoverishment and considerable loss of livestock" (El-Sammani et al., 1987). *Dar* owners found their natural resources to be too scarce to be shared with the nomads; also because of the changing climatic conditions, there was a changing pattern of pastoralism. The latter, of course,

“regarded access to water and pasture as a matter of life and death; hence the intensity of violent conflict to get access to these, and their involvement in conflicts with numerous identity groups..., in whose *dars* they sought water and pasture” (Mohamed, 2002).

Most of the conflict seem to involve the Fur and Masalit groups and the *dars* on which they reside. Two conventional reasons seem to support why these groups were targeted by the Rezaigat nomads of Northern Darfur. First off, the Jabel Marra area is the most fertile in the entire region of Darfur. It benefits from renewed silt that seasonal streams carry down from the volcanic massif; and there is always available drinking water regardless of the season. Secondly, the largest ethnic group, the Fur, are not known for violence, and considering the *dars* they reside on, grabbing a hold of these lands were considered to be the least costly in comparison to the other ethnic groups in the region. Although other groups like the Masalit, who resisted the Rezaigat Nomads and used traditional weapons, the conventional weapons that were supplied by Khartoum to the Arabs were too modern to compete with. It placed non-Arabs at a disadvantage. These two simple reasons provide brief conventional wisdom on how human decisions led to the rise of conflicts that didn't exist previously.

Three Central Government Policies (Khartoum) that were introduced were recognized as having increased the level of conflict in Darfur. “In 1970, two major policies were adopted by the Central Government: the abolition of the ‘native

administration' (tribal leadership) system and the legislation of the Land Registration Act" (Mohammad, 2004). "Nothing disturbed the communal peace in the region as much as did the abolition of native administration" (ibid.). The other (third) central policy that was introduced, which is no exception in the building of tensions in the region, is the government's encouragement to the camel nomads to pursue their rights (even by means of violence) without condemnation. This was initiated by Khartoum in pursuit of its confrontation strategy, which seeks to form alliances with the Arab nomads and subdue any possible future conflicts with the outlying ethnic groups. These three policies were said to have increased the level of conflict in the region, even when they could have been prevented.

The *now-abolished* native administration system was put in place during the British Colonial Rule. The system sought to make tribal leaders responsible for maintaining their regions, as done similarly by a central administration; to maintain law and order are the main tasks. On the other hand, the Land Registration Act rules unregistered lands as government property, and with most *dars* occupied in the region as unregistered, ownership or entitlements to the land gives Arab nomads the right to certain properties owned by Black African farmers. This gave the camel nomads the right to demand equality in access to land and its resources (ibid) because each *dar* is considered and accepted under different circumstances. Lastly, the initiation of the Khartoum and Arab nomad alliance was another point of drastic change in the region. With former nomad and farmer cooperation well

known, the sudden change is also a government-induced matter because starting in the early 1980s, the Khartoum government armed Arab groups with weaponry to subdue the SPLA rebellion in the South. The government also resorted to this type of Arab militia during the 1992 Darfur uprising against the Fur and the Masalit. This Arab militia, the well-known *Janjaweed*²⁹, continued their atrocities because Khartoum also turned a blind eye to the Darfur issue. The conflict therefore, continued at free will and continues on today. A final word by De Waal (2004) indicates further complication:

"They cannot simply be described – as they often are – as "nomads" or "farmers": they are both, and more besides."

Lastly, the Sudanese government attempted to Arabize and Islamize the peripheral populations of the country (Miller, 2007). As previously mentioned, Khartoum armed and trained ethnic militias for this purpose, and “granted them impunity for mass atrocities against civilians it suspected of supporting the opponents” (Thomas-Jensen, 2007). It is true that the Sudan central government in Khartoum was arming the Arab nomads/groups in Darfur solely based on ethnicity. This trend continued since the new government was elected to power in 1986,

²⁹ Janjaweed means “Devils on Horseback,” term used for Arabic Nomad Tribes attacking Fur Farmer Tribes (or African Blacks)

which continued with negative attitudes towards the non-Arab demographic.

5.2.2. Ethnic Battle

Massive migrations from the North meant that the Fur needed to defend their lands against the Arabs. Over time as the two groups believed in their historical rights over the land and as tensions started to build, the two groups started to arm themselves against one another. Both groups argued that either group had no right to reside on their land. The lack of agreement eventually led to a civil breakout in 1985 until 2005 (2nd Civil War of Sudan), but the Arab-Fur war lasted between 1985 and 1990. This conflict marked the first time that the Fur and Arab groups mobilized separate armies across the region. The famous term ‘*Janjaweed*’ was as previously mentioned, first coined during this conflict.³⁰ Lacking institutional power was one reason why the conflict broke out, but actions by Khartoum was another, as it created an ethnic/religious divide between the people’s in the region – between the Arab/Nomad group and the Black/Farmer group. Although all are Muslim, government involvement heightened the conflict.

To add, the 2003 Darfur conflict was affected by the factors introduced in the “Black Book” as it was called, or *al kitab al aswad* in Arabic. In the first page of the Black Book, Part I states that “this publication unveils the level of injustice practiced by successive governments, secular and theocratic, democratic and

³⁰ Ibid.

autocratic, since the independence of the country in 1956 to this date”³¹ (Abdullahi, 2003). The Black Book details the dispersion of political power among the people of Sudan. When the Black Book was published, it confirmed the enormous power imbalance in the country, and also in wealth distribution, becoming another reason to the origin of the rebel movement in Darfur against Khartoum (another conflict). The inequality of representation in 1986 is shown below (Figure 11) and continues on today.

<i>Regions</i>	<i>Population</i>	<i>%</i>	<i>Representation</i>	<i>%</i>
<i>Northern</i>	1,026,426	5.4	58	79.5
<i>Eastern</i>	2,222,779	11.8	1	1.4
<i>Central</i>	4,908,038	26.5	2	2.8
<i>Southern</i>	4,407,450	23.7	12	16.4
<i>Western</i>	6,072,872	32.6	0	0
<i>Total</i>	18,637,565	100.0	73	100.0

Figure 12 - Black Book (Population and Representation) in Sudan

“The conflict began at a very limited level among some camel herding Arab tribes in Northern Darfur and some sectors of the Fur in the northern part of Jabel

³¹ Quoted from the Black Book of Sudan: Imbalance of Power and Wealth in Suban. Authors remain anonymous.

*Mara but it quickly degenerated as a result of the meddling of the political elements in Darfur's towns and Darfur intellectuals in Khartoum. Propaganda, particularly in the Khartoum media, intensified and stoked the fighting until it drew all the sectors of the Fur on one side and all the Arab tribes on the other."*³²

³² Quoted from Article: Darfur Rising: Sudan's New Crisis

5.3. Climate Change and its Resources

*Wherever there is land and rain will be my homeland (Darfurian migrant)*³³

Climate Change is only one of among many causes that are affecting the Darfur crisis in Sudan. In addition, the competition for resources in the region became one of the main reasons to the rise of conflict. However, by simplifying the conflict as a cause of climate-induced problems obscures the search for other important factors that are a cause for conflict. Even though the blame on Climate Change can simplify Darfur, it does little else in finding a solution. Sorcha O’Callaghan (ODI) phrases the following accurately: *“Competition for resources has definitely been one of the main issues in the conflict, but undue emphasis on it, at the expense of other causes, is an attempt to simplify the crisis. The complexity of the different factors driving Darfur’s conflict need to be borne in mind in efforts towards its resolution and therefore, over-simplification should be avoided.”*³⁴

All things considered, the Darfur conflict began as an ecological crisis. Amid all the diverse considerations, whether they be social or political, military or ecological, climate change is discussed as simply an arising factor (Ban, 2007). Here “Darfur itself provides a case study of how existing marginal situations can be exacerbated beyond the tipping point by climate-related factors” (Terdiman, 2013).

³³ Quoted from “The Disaster,” pg. 1306

³⁴ Overseas Development Institute (ODI) on Climate Change in the Darfur Conflict

“It also shows how lack of essential resources threatens not only individuals and their communities but also the region and the international community at large” (CNA, 2007). For some time, the Darfur conflict has been considered an important cause in which the international community needed to become involved in order to create peace and stability in the fragile region. With the Sudan landscape a desert, the recent shifts in rainfall and the worsening conditions brought with it worsened instability. According to Sachs, climate shocks can bring down governments and even set off wars. Therefore, the carnage in Darfur is very much a climate shock in which has roots in an ecological crisis, as much as it is politically and militarily-influenced.

The great drought of 1984 and 85 eventually led to localized conflicts for diminishing resources. Although this only led to culminating the Fur-Arab war of 1987-89, the 2003 conflict was caused by the Khartoum’s response to the people’s uprising, or rebellion (Flint & Waal, 2005). The instability caused by the climate shocks – not only by resource conflict - led way to further instability among the people, even before government interaction. The violence between these different groups are the most visible dividing lines. Hence, although factors of governmental involvement and ethnic interactions are emphasized as a root cause, the conflicts in Darfur cannot be told without including the underlying environmental factors (Onyango, 2007).

Factors of Climate Change inexorably have altered the landscape of

Darfur. It led to the erosion of natural resources, social strife and conflict. To emphasize this case, Muawia Shaddad (Nasser, 2007) of the Sudan Environment Conservation Society noted that the rainfall data collected since 1917 showed that the average annual rainfall had halved over time and in Darfur, people saw the conflict coming.³⁵ The UNEP too acknowledges the elements that contribute to the conflict. Here, the environmental causes are noted. Where environmental and natural resource issues are important, most are considered as contributing factors only and not the sole cause for tension. These arguments do not deny the factors of climate change or the already tense situation over demand for resources. Rather, the placement of emphasis on other factors such as government error, ethnicity, religious, etc. are placed with greater scrutiny.

The challenge to Darfur is to avoid simplifying the cause of conflict. To simplify it in any way is wrong in itself; to simplify it as an ethnic battle is also wrong, based on the current findings. Dabelko (2007) of the Woodrow Wilson Center iterates to avoid over-simplistic formulations that equate climate change inexorably with genocide or terrorism, as some less careful commentators have done. That is the challenge going forward when finding common ground on the main issues. To undue emphasis on other areas only simplifies the conflict. The dynamic nature of the conflict is therefore, Darfur's biggest problem.

³⁵ Also quoted by the Washington Post.

The UNEP, during Darfur's initial breakout made recommendations to control and address the situation, including investment in environmental management, climate adaptation measures, capacity building of national and local government in environmental affairs, and the integration of environmental factors in all UN relief and development projects.

VI: Analysis

The Darfur conflict was heightened by human decision. Those decisions were a major turning-point in the conflict. The other factor mentioned are the climate-induced impacts. With these factors considered, an analysis using the Mary Douglas Group & Grid Theory will show how one action forced the hand of another into action, thereby causing the conflict to erupt in 2003. None of the factors from a decision were intended to cause a chain effect, but the model will show how the different groups became inter-connected and how the actions unintentionally became inter-related even when they should be separate. The impacts from the decisions will show an equal level of response.

6.1 Case Framework

The Decisions made by Khartoum were controversial. With most of the oil fields of the Sudan located in the South Sudan, the government had a willingness to control the oil fields (before and after South Sudan's Independence) and the central elite were reaping the benefits of control. Also, with the Black Book confirming with numbers the level of discrimination in the country, Khartoum had become very concerned with the possible uprising from the Darfur region

because Darfur was considered low priority to them. But with Sudan's 2nd Civil War already ongoing between Khartoum and the SPLA, and with the possible escalation of Darfur Natives uprising, Khartoum needed to cooperate with the Arab Janjaweed to subdue any conflict that Khartoum would be required to subdue, free of charge. This type of decision was made because government troops were already involved in a conflict with the SPLA and it made involvement in Darfur difficult. Therefore, although controversial, Khartoum's decision to interact with the Arab Nomads is the first reason to conflict.

Changing conditions to the climate have also caused a wide array of problems. Not only was Darfur's increasing population affected by limited rainfall and diminishing resources, but the conditions of desertification led to the mass migrations to the south, which was the cause of stress in an ecosystem that has already become increasingly fragile and prone to conflict. It is true that droughts in Darfur have always existed but the conflict between the Farmers and the Nomads ruined the environment far beyond the damage by drought. So environmental degradation is one of the driving forces of human displacement, as there has been as much displacement as relocation. The UNEP also says that the environmental impact of a refugee or displacement camp is often high, leading to extensive deforestation. Hence, in this period of extensive drought and growing population, all this has meant a severe strain on the natural resources and destruction of South Darfur (Reyna, 2010). Climate induced factors,

migration and the increased populations all become singular factors to the conflict. Furthermore, some may also correlate displacement with weak governance institutions because of lacking resolution capabilities. All in all, each are factors and all are separate but still interconnected.

The last area of analysis is focused on water. As was emphasized previously, Darfur is very dry. Even with the harsh environmental conditions, the people have survived and lived cooperatively, but the increased population negatively factored into the increase use of limited water resources (Fadul, 2004). But the conflict between Darfur's Nomads and Farmers, heightened by Khartoum, took violent steps towards increased conflict. Not only were people's lives at risk, but the security of the available water supplies were also at risk. Hagan and Keiser (2011) phrased it as follows: "The attacks on the farmer villages were vicious, aimed at making life in the village impossible, using scorched earth tactics with random killings. Both also claim that "all the wells were poisoned with what smelled like DDT. Birds and animals that drank from the wells died. Also, it was found that oil had been put in the well making the water undrinkable." Water became a very important weapon the Janjaweed used against the Farmers. Although some may consider their tactics as confusing, two reasons for the violence explains why: Nomad Survival and their ownership of the land in Darfur. Future ownership of land means water is the prize they hope to attain at the end of the conflict. After all, it is what the Arabs are fighting for, and

Khartoum is willing to provide them with weapons and a partnership. But was water distribution by the state also a cause?

6.2 Theoretical Framework

First off, the outcome of water scarcity resulted from a complex range of economic, political and social circumstances. Issues of increased desertification, diminishing rainfall levels, population growth, migration, intensive farming and the changing societal structures and power distribution all caused changing consumption patterns among the people in Darfur. The overall result was a heavy increase in water consumption. This implies little emphasis on prioritized water distribution. The Sudan does not place heavy importance on water as a valuable resource like in the West, meaning little in terms of economic and political priorities by the state. The main issue here was societal overuse as was continuously iterated.

The case of desertification, diminishing rainfall levels and population growth have attributed to the problem of Sudan's usufructuary land rights. With the land system already in place, the government did little to help protect the land for the different ethnic tribes, also putting a lack of effort into preventing such conflicts from arising. Although it was the Darfur Farmers that were most affected

with violence against them, it was the Nomads who were unprotected with their rights to the land, to which they had rights to access. Only when the Nomads became desperate with their situation did violent actions follow with the Farmers, breaking a local conflict into the 2003 Darfur Conflict. Without an uprising, the livelihoods of the Arab Nomads will remain threatened under the current conditions. Hereby a rebellion without the involvement of Khartoum took place because Khartoum remained utterly disinterested in Darfur regardless; the central government only wanted to maintain control over the Sudan and prevent any uprisings against them. The Arab Nomads helped them with this while fighting for their cause.

In addition to the above, what does this say about the Theoretical Framework to the case of Darfur? As is clear, access to water supplies for all makes survival possible in the harsh climates of Darfur. If two reasons were presented, one can say that land and water rights are two considerable factors because groups of people and the success of any group involves accessibility to water resources. Without water, there are no water goals and with no water goals, a society would remain in a dire state of living. Therefore, based on the different societies, groups act to achieve their water goals, and ensure they act accordingly to them.

As mentioned, the Darfur region is not an area of importance to the government of Sudan at Khartoum and as the Black Book confirms, Darfurians are marginalized in the society. So how do Darfurians grab the attention of the central

government? Violence is the only option a powerless group can take. Consider if a violent outbreak did not take place and the government was unaware of the following situation, Khartoum would distribute water to whom it has connections and where it is needed most i.e. the oil fields. This type of corporate partnership of supplying a resource based on the demands creates ties and thus, distribution of water to groups are altered. Therefore, the distribution of water would be at a disadvantage for the powerless group. But if certain ethnic groups were not powerless in the first place, and this level of marginalization didn't exist, the way of expressing displeasure and grievances did not have to be violent. The present level of equality in the society is skewed accordingly. But individualists are also considered as entrepreneurs, which the government must retain strong relations with. This is one exception to maintaining a support base.

When water scarcity becomes water stress and with the current water redistribution mechanisms in place likely going to the markets, violence can be triggered by the people. Although Darfurians had access to water, albeit it being very limited in quantity, most of the displeasures lie with their lack of representation in the economic and political areas. Hence, the lack of political rights have grieved the Western Region's population against the government, and the economic developments were limited to those in control of Sudan's oil fields. Violent grievances followed while the groups fortunate to have water prospered and kept strong supporting ties with Khartoum.

The above factors directly link with the state. As the state is composed of a variety of different ethnic groups, there is a process of order and control. As mentioned by Mary Douglas, for hierarchists, there needs to be a base on which the group can secure themselves to maintain the power structure in place, and the power which they hold. In order to do so, hierarchists are open to cooperating with the individualists for their support. If groups were placed in a dire situation of water scarcity and with little cooperation, greed for water will lead groups into attaining as much water as possible for themselves, to help either their livelihoods or income. Therefore, for the hierarchists and the elites, the use of water redistribution as a means of keeping their power base intact is their best available method. This is so because when the marginalized group in the society reacts, the state needs to be receptive. If the state is not receptive, the powerless groups have no other means of communication but through violence. Therefore, in this way, the lack of water security and its distribution mechanisms can lead to conflict as iterated. Hence, the relationship between the hierarchists and the individualists here show an important dependence on one another for security.

The group affected the most were the Nomadic Tribes, whom are Arab and are in support of the central government. The group that was most bereft of water were the Nomads. The Nomads only became violent with their Farmer neighbors because of the battle for arable land and water security. Therefore, the 2003 conflict that broke out in Darfur cannot be considered as one of redistribution.

The water in Darfur is a local cause, and in this particular situation, the central government of Khartoum does not consider who gets the water to be of particular importance. Only as long as the group that supports the government remains loyal to them is important. As for the Nomads fighting in this conflict, their end prize is water affluent lands of south Darfur, more arable land to graze on and a future. The Janjaweed has therefore been resolving the conflict for the government, fighting the war for them. Although the conflict is not yet over, the loyal connection between the hierarchists and the individualists needs to be maintained for Khartoum to remain in power. Lastly, as for the marginalized *individuals* in society, the ongoing series of events and the level of risk involved, the Darfur farmers had no other option than retaliation.

With all this said and done, land rights and water scarcities were both important factors that helped lead this conflict into what it has become, and so were conflicts among the ethnic groups and government involvement. But the conflict in Darfur is not yet over. Future studies will need to be conducted to see how the process of resolving Darfur's conflict over land and water concludes. As this thesis is limited to research alone, to see how the conflict ends will answer many more questions noted by scholars and organizations.

VII: Conclusion

This thesis has focused on and explored how various types of determinants potentially caused the outbreak of conflict in the Sudan. Reflecting on some of the shortcomings in previous research on the topic of Darfur, this thesis tried to distinguish how the different types of factors played critical roles on negatively affecting the country and its regional stability. More importantly aside from the many social conditions, another area of interest was researched to understand if the competition for land and water were as important to contributing to the conflict as social conditions were. Hence, this was the key determinant of the thesis and its direction.

In doing so, the thesis borrowed from the Mary Douglas Model of Group & Grid to provide insight on societal dangers. These societal dangers were based on individual perceptions and Douglas assumes individuals to relate societal harm with societal norms, each affected by behavior, social groupings and social structures. Secondly, the level of danger (aka. *risk*) is built on the organization of a society. The Group & Grid compared the level of group collectivization in the society (the Group) with the stratification of roles and authority in the society (the Grid). With this, the level of societal interaction and how groups cooperate helped compare to show the importance of how the conflict path was set.

Fatalists (The mass of the Governed – “The Isolates”)	Hierarchists (Religious Institutions, Government – “The Hierachists”)
Individualists (The People – “The Markets”)	Egalitarians (Egalitarian and Environmental Principles – “Communitarian”)

This is where the theory of Water Wars was considered. Water Wars, as explained, are nations fighting for a valuable resource that is becoming increasingly limited. The fighting can be for any resource but this case is specifically focused on water. The state is considered responsible for distributing water evenly amongst the society to aid in its development but in most developing societies in Africa, distribution of sorts is commonly a problem. But in the case of Darfur, it was not simply a problem with distribution but of other conditions that worsened environmental conditions in the region all the while.

First off, the thesis identified a couple distinctive factors that led to conflict. To put simply, those characteristics were (a) land and water rights, (b) government decision and (c) ethnic marginalization in society. Although these characteristics are broad in context, they are important variables that increased conflict in the region and by linking these characteristics to the Group & Grid provided necessary insight on how to conflict arose. Two sets of comparisons were made: (1) land-water rights vs. ethnic groupings and (2) land-water rights vs.

government decisions.

This thesis tries to ensure that certain factors affecting any type of conflict should not be disregarded or too over-simplified. As iterated, not a single factor alone is able to explain the Darfur conflict with enough detail for its cause; also, the danger of implying the conflict happened because a singular cause only disregards the need to research more into those subject areas because it obscures the search of the cause. Thus, the thesis has focused on a couple of key areas to better convey how Darfur was really affected.

Back to the land-water rights comparison to ethnic groupings, water is an inherent right for human survival. Access to water is also an inherent right. If a society lacked the required water resources for survival, there would be no means of development and with no means of development, there are no prospects for advancements given by water goals. By these means, the state is responsible for reliable, equal distribution of the resource among its people as an inherent right. Although the Darfur conflict is not simply a failure of water distribution, it was the level of marginalization by the government towards its people that caused distrust, leaving the marginalized group as powerless and unhappy.

The second comparison involving the government over land-water rights involved the requirement of a support base to remain in power and so decisions needed to be made. The government of the Sudan requires a support base to remain intact as a leadership group. With conflicts ongoing within the Sudan over land-

rights and the resources in those areas, the government did not have the resources to settle rising conflicts in the Darfur region. Thus with Khartoum already occupied, they required a support base to stabilize their position as a state and for this mean, partnerships were created with the big players in the Market and with the Arab population.

Moreover, the linkages of the above factors mean little without the mention of Sudan's *Usufructuary Land Rights*, or common ownership. Although drastic population growth, heavy consumption and changing weather patterns greatly impacted the region of its resources, one area where the conflict was prioritized was for *land*. Not only did this land law create conflict among the people it's affected, but lifestyles and cultures were abandoned to ensure the survival of each people groups. The government didn't do enough to resolve this issue either, but rather pushed greater ties with Arab groups in the country, further destabilizing the region and its people. So how can a powerless group gain attention? Violence. And how do they survive incoming violence? Again, violence. Conflict is a byproduct of the ongoing land issues and marginalization.

Finally, the Group & Grid Theory represents another aspect to the conflict. Many governments and corporations in developing countries distribute resources to where they are most needed – the development of the markets. The Sudan is no exception. However, the Sudan is an exception. Even though Khartoum has maintained ties with the markets to maintain the support group that any

government requires, the level of distribution of the water resource was not limited to the markets. Rather, the main reason for conflict in the Darfur region were social, factors like population, land, overconsumption, etc. and were self-inflicted by the populations residing in the region. On another note, the alignment between the Hierarchist and Individualist group represents this. It shows how people groups react to the level of risk perceived with a parallel level of response. This was seen when the Khartoum-Arab Nomads started the conflict with the Black Farmers and it also displayed convergence with the markets. Thus, although the level of conflict was not intended to heighten such conflict, conflicts show that it only requires a little fuel to light a fire.

Yet, there are a vast array of limitations to this thesis. The intent of this thesis is to build on the already available knowledge given to the Darfur conflict. First off, the Mary Douglas Group & Grid model has limitations in understanding the Darfur conflict for what it is, less so on how it began. It was noted that several conditions led to the rise of conflict but the Douglas model does little in understanding how it was caused because of its general viewpoint. Other aspects of the conflict need to be examined to understand other aspects of the conflict not mentioned in this thesis. Secondly, the Douglas model does not cover any aspect to climate-driven problems, as noted by the aforementioned factors. With the availability of technology that was not available to these areas prior, other scientific areas can explain Darfur with greater detail.

Finally, to answer the research question: **Were Land Rights and Water Scarcities both factors in Darfur's Conflicts?** Based on the contents explained in this thesis, it is believed that the above Land and Water factors contributed greatly to the conflict. But like all other factors, they are only factors contributing to the bigger picture. But as long as there is some contribution to completing the puzzle, it is one step forward in the right direction.

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국문 초록

성명: 채충남

학과 및 전공: 국제학과 국제협력전공

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다르푸르의 민족 갈등을 넘어서:

물의 설명을 중심으로 한 갈등과 대책 방안제시

본 논문의 주 목적은 수단-에티오피아 국경 지역 다르푸르 지역에 영향을 미친 주요 쟁점들을 밝히는 것이다. 다르푸르 분쟁의 발발 초기부터 이에 대한 연구가 광범위하게 이루어져왔지만, 기존 연구를 통해서는 충분히 설명되지 못한 부분들이 여전히 많이 남아 있다. 이는 다르푸르 분쟁에 대한 현재 연구 결과들을 강화시킬 필요가 있음을 의미한다. 따라서, 본 논문에서는 해당 지역이 어떻게 부정적인 영향을 받았는지에 대한 이해를 높일 수 있는 일련의 요인들을 살펴보는 한편, 다르푸르 초래한 부정적으로 일련의 요인들을 살펴보는 한편, 메리 더글라스의 그룹-그리드 모델 분석틀을 사용하여 어떻게 개별 요인들이 연계되어 다르푸르에서 분쟁을 촉발하였는지를 보여줄 것이다. 또한, 토지권과 물 기근 등 기존에는 고려되지 않았던 변수들도 검증 대상에 포함되었다. 자원의 중요성 여부에 대한 분석은 다르푸르 분쟁 해결을 보다 더 설명하는 데에 도움이 될 것이다.

키워드: 분쟁, 변수, 토지권, 물 기근, 자원

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