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The impact of climate change in Africa: Environmental security in the face of nature

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Abstract

The research aims to highlight the role of climate change in creating a deteriorating natural environment and its impact on development processes and efforts to provide human security in African countries, as well as its effect on social and economic structures. Climate change has led to scarcity in essential resources for livelihoods and has played a role in state-building trajectories. It has also accelerated the pace of ongoing armed conflicts in numerous countries, in addition to migration, asylum-seeking, and increasing burdens and responsibilities on the armed forces. The main focus of this research is to emphasize the reality of the effects resulting from climate change, a subject that has stirred controversy and has not been acknowledged by certain powers. The catastrophic consequences of these climate changes on the security level have revealed the weakness of African countries in confronting them. The research also highlights an increase in the intensity of armed conflicts on the continent, with non-state groups gaining control over certain regions, exploiting the weakened infrastructure resulting from natural disasters. Moreover, the most dangerous aspect is the geopolitical changes linked to these climate changes.

Keywords: *Climate change, human security, environmental security, local communities, resources*

Introduction

The phenomenon of climate change has acquired a distinct role in human life on planet Earth. It is no longer a transient occurrence attributed solely to natural cycles and seasonal shifts, but rather an integral part of both human and planetary existence. A remarkable shift in focus has occurred, transitioning from societal and international political conflicts to matters concerning nature itself. This shift is driven by the impact of disruptions within natural systems, an impact that extends across all aspects of human life. This influence often supersedes the capabilities of nations and their cognitive, administrative, and military forces, resulting in dramatic situations across economic, social, and security domains. These situations manifest as a politically turbulent environment.

Some aspects of this transition are evident in the exploration of the natural phenomenon known as climate change, which possesses the potential to undermine a nation's security and diminish its economic strength. Traditionally, such matters were within the purview of armed forces. The imbalances in military power and, subsequently, economic power, highlight the juxtaposition of

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nature's threat alongside its impact on societies and nations, along with their military and non-military capacities.

Given that the African continent stands among the geopolitical arenas significantly affected by the growing impact of climate change, its political and security stability faces an unprecedented challenge. This challenge lacks a straightforward strategy or strength for confrontation, as it deviates from traditional threats. The existing traditional structures have been oriented towards addressing threats of purely military nature.

The African situation is particularly unique, given that the continent contributes minimally to the actual causes of climate change, as indicated by studies and research. However, it bears a disproportionately high cost in terms of its impact. Africa's contribution to climate degradation is limited, if not negligible, when compared to the emissions from other continents resulting from industrialization, resource exploitation, and the burning of energy sources. These actions have led to unprecedented climate deterioration over recent decades.

A critical paradox lies in the scientific contributions from various branches of science that emphasize these mentioned causes. These are established scientific facts (in disciplines such as natural and life sciences, physics, chemistry, and others). Nevertheless, the catastrophic repercussions of this phenomenon cast shadows over the continent, affecting its economic, political, and particularly security aspects more profoundly than other continents that are major contributors to pollution and greenhouse gas emissions since the Industrial Revolution in the 18th century up to the present day.

The catastrophic consequences of this phenomenon cast shadows over the African continent, affecting various aspects and levels including its economic, political, and particularly security dimensions more significantly than other major contributing continents to pollution and greenhouse gases since the Industrial Revolution in the 18th century up to the present day.

From multiple perspectives, the shift in research is justified, given that the potential for impacts extends to both comprehensive and partial disruptions within systems. Due to the rapid shift, major forces are exposed to the dramatic situation unfolding in Africa.

The fragility of security and economic structures in African countries accelerates the spread of negative effects of climate change, traversing borders whether neighboring or distant. This generates a distinctive attribute of disturbance within an already tumultuous security environment, spanning from internal to regional and continental levels, and further into higher branches of the system.

Firstly: Problem Statement

Identifying the Problem

One of the most significant ramifications of climate change is its imposition of limitations on

resources, especially surface resources, which are essential for daily livelihoods across the entire African continent, particularly within specific regional areas. In contrast, there exists a tumultuous security and political environment driven by social and political conflicts, resource disputes, and factors that burden the state and its civilian and military capacities. This necessitates new responsibilities for all its civil and military apparatuses to confront multiple-risk disasters and their consequences.

Based on this, considering the causal relationship between the deteriorating nature of security in Africa, as a generally turbulent environment, and the unnatural degradation of the natural environment due to greenhouse gas emissions and unsustainable resource exploitation, the question arises: To what extent does the "natural environment" act as a catalyst for further security disturbances in Africa? What are the additional burdens placed upon the state? How can the threats posed by nature's transformations in fragile states be effectively addressed?

Hypotheses of the Topic

- The impacts resulting from climate change lead to further security deterioration in African countries as a whole.
- Human security in Africa deteriorates due to the loss of cooperation principles and resource sharing among local communities.
- The effects of abnormal natural phenomena increase the burdens on the state in terms of military, civilian, and financial responsibilities, thereby weakening the ability to respond to challenges.

Research Methodology

Climate change, as a new cognitive scientific subject, has entered various scientific fields due to its significance in the lives of individuals or groups. Therefore, it requires multidisciplinary research approaches. The researcher has relied on the method of sociopolitical analysis in studying local communities on the continent, and their traditional organization in work division, cooperation, and conflict resolution. Additionally, the method of international political economy has been used in analyzing the impact of climate change on resources. The conflict analysis method has been used to clarify the escalation of conflicts when they encounter climate effects. Moreover, the comparative historical method led us to important results when analyzing the relationship between climate change and specific regional conflicts.

Secondly: The Importance of Surface Natural Resources

The Role of Surface Resources in Public Life

Freshwater lakes, rivers, pastures, as well as forests and coastlines, have consistently been sources of economic activity and daily work for African communities. These surface resources are integral to the social fabric and the construction processes of these communities, including the political paths they take to build their systems and nations, as well as their identification of vulnerabilities

and the establishment of their security strategies.

This illustrates the significant influence that any changes occurring in the natural state of surface resources can have on all pathways of state-building, its security status, and its ability to confront threats. This is based on the fact that African communities are entirely reliant on the land, primarily engaged in primitive agriculture rather than industrial activities. The presence of land is the primary, if not the sole, source of livelihood. As a result, it has become evident, given the lack of noticeable economic development for most African societies and their absence of a shift toward manufacturing and urbanization, that life hinges on surface resources such as pastures, water, farmland, as well as certain sources of energy and minerals. This prevailing characteristic of economic activity, and consequently social relations, state-building processes, and security provision, will revolve around these resources.

Given that this interdependence signifies a direct reliance on the daily lives of the population in most African countries, with variations from one region to another, it has also brought about climatic variations that play a role in the distribution and diversification of these resources. The strength of this reliance has become evident as a variable influencing general societal life, with climate and resources acting as controlling variables over it.

Water, fishing, gathering wild products, forest resources, grazing, hunting, and textile production – all these elements of African societies have their origins in nature, particularly the surface level. These societies lack the technological capabilities to tap into subterranean resources, hence their reliance on these basic surface resources for survival. The emergent social relationships revolve around the utilization of these resources, defining communities and often leading to tribal conflicts and, in many cases, internal and inter-community wars. The consequences of these conflicts have resulted in genocides and massacres, as witnessed in regions like the Great Lakes area. Interestingly, these conflicts persist despite these societies having mechanisms for conflict resolution, derived from their social systems and tribal cultures.

On another note, the geographical distribution of populations in African societies, from a demographic standpoint, appears to align with the abundance or scarcity of surface resources, whether seasonally or chronically. This distribution sheds light on the reality of life that is entirely reliant on surface resources. Demographic studies⁵ reveal that, even though their information may relatively change with shifts in social and security conditions, a majority of the population is concentrated around areas abundant in exploitable surface resources. The prevalence of settlements around water bodies is noteworthy, and even urban centers have not been overtaken by industrial and service activities except to a limited extent, as they rely on resources and labor force originating from rural areas.

The geographical location of Africa between the Atlantic and Indian Oceans, along with the Mediterranean and Red Seas, has contributed to its diverse climate. This diversity has, in turn, led to densely varied regions, such as the Sahara Desert, the coastline, the Horn of Africa, the

Ethiopian highlands, savannahs, tropical forests, the Great Lakes region, and South Africa. This extensive diversity has a profound impact on economic activities and the resulting social relationships, giving rise to security and political groups that have been influenced by natural factors, as observed.

The outcomes of these trajectories vary in their assessment, ranging from their success in ensuring security through peaceful societal development to their failure in achieving those tasks. These events have manifested from time to time, after each complex climate situation, such as the drought that struck the Sahel and the Horn of Africa in the 1980s, or the crises that occurred during the decline of Lake Chad's water level and the Niger River basin's water level.

Resources and Peace-Building among African Local Communities

The interaction between economic activity and the division of labor within population groups, which are largely subject to ethnic, tribal, and cultural considerations, leads to the formation of factors that determine livelihood goals and the necessity of security provision by the state. These states inherit their political and economic conditions, as well as their geographical and political boundaries, from the colonial era. These states possess all aspects except for the ability and identity to exercise jurisdiction, influence, and guarantee the basic needs of the population. Additionally, there is a lack of clarity in establishing authority, methods of practice, access, and even exit, creating a hybrid catastrophe between symbolic modernity and traditional primitiveness. In this struggle, the concept of the state appears as the dominant authority over tribes and cultural elements. Contemporary political thought cannot provide assurances and convince these groups that the state is capable of providing security for everyone and guaranteeing it fairly. These communities believe, primarily, in the abundance of resources and the freedom of access to them, prioritizing loyalty to the state. They then consider the supposed distribution fairness. Since livelihoods are linked to surface resources, these entities have realized since the beginning of the post-colonial era that the state does not have the ability to commit to fair distribution. As a result, dominance remains intertwined with ethnic and cultural factors, along with mechanisms for resource allocation and division of labor.

As a result, any change in the usual abundance or natural flow of surface resources can lead to significant deterioration in the daily life of these entities. This can directly cause social and political disturbances. From a security standpoint, the matter relates to these communities losing their ability to continue creating a sense of security, which is the ultimate goal of any human group.

According to the study of tribal communities, the social structure serves as a precursor to other factors in the task of providing security for its members. Primarily, those who share membership, culture, beliefs, and, naturally, resources, are the ones responsible for this security. These well-known facts about local communities are also the same factors and objectives that drive conflicts over power between groups, whether within a community or in their relationships aimed at state-building.

Trade and reciprocal relationships between communities, along most of their trajectories, have often led to peaceful and harmonious interactions, sometimes even evolving into high levels of cooperation during periods of prosperity and natural abundance. When studying periods of peace in specific regions of the continent, the importance of abundance and natural flow of surface resources becomes evident in fostering stability and the desire for cooperative peace among communities. This further emphasizes the mutual interdependence between these communities and the maintenance of social harmony.

While the livelihood of these local communities has gradually shifted in recent decades, partially relying on activities such as mining and gemstone extraction due to heightened scarcity of resources amidst increased demand, this shift has complicated the relationship between resources and the trajectory of building communal security. In relatively short periods, new groups and militias emerged to take on the role of protection and security, leading to significant repercussions for the communities themselves. Therefore, a simple comparison between a livelihoods based on surface resources and one reliant on extractive resources reveals the former's capacity for fostering peaceful development and cooperation within local communities, despite its dependence on climate and nature. In contrast, the latter, dependent on external protection, has often accelerated the self-destructive dismantling of cooperative trajectories and hindered progress towards stability and state-building.

Thirdly: The Rise of Environmental Discourses between Reality and Theoretical Frameworks

The field of environmental studies has sparked extensive debate among thinkers and theorists in the realm of international relations. This discourse revolves around those who acknowledge the profound global impact of the environment directly on the security and stability of human societies, without exception or discrimination, and those who downplay or even deny this influence. This has led to a notable surge in studies, research endeavors, and attempts to formulate theories on the subject. Each school of thought approaches the issue based on its own perspectives, methodologies, and objectives. Among these, there are those who seek to rationalize a dominant system and ideology within the global order, while others critique specific populations, holding them responsible for the worldwide environmental degradation.

The Rise of Environmental Studies in Security Analysis

It may not be methodologically successful or aligned with the article's topic to delve extensively into this debate and pinpoint responsibility. Therefore, stemming from the theoretical humanization of security, the justification for the presence of environmental discourses and the increasing interest in them has been linked to the writings of several thinkers who primarily focused on theories of conflict, war, peace affairs, and diplomacy. Ultimately, they shifted their focus to the relationship between security and climate change, considering the issue of security, whether at the national or humanitarian level, to lie within climate changes and their impact on human societies,

as affirmed by various interdisciplinary scientific studies. This perspective has also been driven by the pressure exerted by various political organizations, civil society, media, and the reality illustrated by environmental disasters in multiple regions of the planet, particularly on the African continent.

It appears that the thesis of "Climate Change as a Focus of Global Security" by the renowned scholar Goldstein* finds itself as a strong foundation in accelerating the recognition of the centrality of climate change and its ability to undermine security in the global system. This is based on what its subsidiary systems convey. Disruptions caused by climate change in a region of Africa, for instance, can have dire consequences on the entire global system. The dominant powers at the core of the system fear that these consequences might lead to the collapse of state structures or the control of relief efforts by certain forces, imposing their ideologies and beliefs on the afflicted populations. This further exacerbates imbalance and instability.

It becomes evident that the consequences of climate change, resulting in deterioration of security structures and environments, create cross-border disruptions. The reality has shifted beyond structural disputes and conflicts, driven by the necessity to confront this unconventional threat. It pushes towards a cooperative security characterized by distinct and different features from previous threats. The property of border-crossing and the inability to predict the extent of the looming impact, even within the vulnerable geographic region, is particularly concerning. What is even more dire is that armed forces built on the doctrine of countering tangible threats, whether imminent or latent, will not find appropriate means to address this threat. If this holds true for the dominant central powers in the system, the situation is even more severe for local communities in Africa.

If we seek further operational justification for delving into the deep exploration of the relationship between security and climate change, consider the example of environmental degradation and geographic complexities caused by floods, melting polar ice caps, storms, and hurricanes. These have introduced new topographical realities that impede maneuverability for the armed forces across their traditional domains: maritime, aerial, and land-based. Consequently, they become incapable of finding suitable infrastructural alternatives for maneuvering. Additionally, when it comes to security and relief distribution interventions, especially if speed is essential, many armed forces would be required to deploy. In cases where countries possess weak or nonexistent infrastructure, the level of risk associated with deterioration becomes extremely high. This is particularly evident in certain regional areas within the African continent, where the likelihood of intra-state armed conflicts remains significant.

The reality of climate change in Africa

Africa finds itself in a sensitive and rapidly responsive position to the changes affecting the climate. Reports from various international, governmental, and non-governmental organizations confirm the deteriorating climate conditions in diverse regions across Africa. These changes have encompassed all elements of the climate, including rising temperatures, fluctuating rainfall patterns, snow melting, severe storms, and the passage of hurricanes. As a result, they have impacted local

ecosystems, diverse environmental areas, and natural biodiversity, all of which are fundamental for resource provision. Additionally, these changes have led to the shrinking of water bodies, occurrence of floods, and an increased rate of desertification, casting shadows over the agricultural sector.

In terms of mentioning the parties that have prepared reports supported by facts and scientific justifications, it is possible to mention the United Nations report on climate change in Africa¹⁸ for the year 2021. This report provides a detailed analysis accompanied by quantitative studies of the current changes occurring in various climate elements. Similarly, the report from the World Meteorological Organization on climate change and sustainability in Africa for the year 2022 also delves into these realities¹⁸. Similar reports from the World Bank have clarified the actual climate change situation in Africa, particularly highlighted in a report from 2021, which emphasizes significant measurements of rainfall decline and the degradation of water resources. These factors can contribute to pushing populations towards migration.

The Transitional Committee on Climate Change (IPCC) report, which focuses on the African continent's regional impacts of climate change, reaffirms the undeniable importance of scientific evidence. This evidence, presented by the working group, is instrumental for policymakers and global powers to acknowledge the necessity of addressing the issue and reducing their share of responsibility²⁰. The report employs various statistical approaches and novel methods of analysis, aided by available information technology for scientific research, despite the challenges posed by accessing information from different African countries.

On another note, we find multidisciplinary research groups delving into the explanation of the climate change phenomenon. These groups include sociologists, astronomers, physicists, mathematicians, economists, researchers in international political affairs, security experts, and various other scientific disciplines. This serves as confirmation of the far-reaching impact that climate changes have on human societies. The phenomenon is of paramount interest to scientists due to its significance, as obtaining explanations and sharing experiences of adaptation from one community to another or from one country to another becomes essential. This diversity of interest and the funding of scientific research dedicated to this phenomenon vary among the different regional stakeholders on the continent²².

With these scientific facts in mind and considering the volatile situation, along with adding the psychological aspect and the sense of human communities grappling with the harsh environmental shifts, social dynamics, political and economic systems are nurtured by an altered environment with unknown influences. Climate changes in Africa will serve as a multiplier, a conduit, and even an accelerant for tensions, polarization, and conflicts. The door remains open for further speculations.

Fourthly: Nature and Security in Africa: Confrontation and Consequences

After confirming the reality of climate changes and their tangible impact on the environment, as

well as the destruction of natural resources, especially those vital to the daily lives of local communities in the African continent, it becomes necessary to delve into explaining the extraordinary capacity of nature to redirect the lives of people and restructure them according to the new (environmental) parameters due to climate changes. When communities that have traditionally coexisted and harmonized through resource sharing and division of labor find themselves confronted once again due to resource scarcity exacerbated by climate changes, studies have observed an increase in conflict intensity, social disintegration, and most importantly, the positioning of security in all its aspects and contents for these African nations in the face of a deteriorating environment.

The Scope of Confrontation between Nature and Security in Africa

Given the significance of security threats stemming from climate changes in Africa, numerous workshops and research groups have addressed this phenomenon. Notably, various research centers, whether academic or affiliated with international organizations, have displayed interest. This is attributed to Africa's geopolitical and geo-economic importance relative to other continents. Africa is considered a global reservoir of renewable and non-renewable energy sources, minerals, and various raw materials crucial to the global economy. Additionally, global security interdependence and rapid transitions between subsystems within the global system contribute to this interest. As disturbances and conflicts intensify on the continent, their rapid spread poses a threat not only to regional areas but also to the interests of external powers.

The degree of mutual reliance between the African continent and most of the powers in the global system has increased. As the growth in the global economy advances, Africa's strategic position in this system becomes more prominent. It is no longer a neglected continent, as it was characterized in the 1990s. As a result, Africa affects the world with its economic and social state, as well as its stability or security challenges, whether in terms of its internal situations or its dependent relationships with the global system. Likewise, due to the influence of climate changes on the socio-economic conditions of local communities, the security structures in the continent and the world at large are destined to be unsettled²⁵.

Specifically, the confrontation between nature and security can manifest through humanitarian security and its centrality in overall security. The interaction between them occurs at the societal level, economic activities, and political development pathways. Given that the daily lives and most aspects of economic activity for local communities rely on surface resources, which are vulnerable to the accelerated impacts of climate change, drought, reduced rainfall, and the decline of water bodies have led to resource contraction. In Mali, South Sudan, Chad, and the Great Lakes region, conflicts stemming from resource scarcity due to natural phenomena have been intensified. In the case of Somalia, drought has clearly been a determining factor in the relationships between local communities, playing a significant role in civil wars, instability, and even the recent collapse of the state. It has also been a decisive factor in the various attempts at reconciliation over the past twenty-

five years²⁶.

The levels of confrontation we mentioned earlier represent the arena where nature interacts with the humanitarian security of coexisting communities. This has led to a noticeable transformation, akin to a breakthrough in people's lives. Migration driven by climate factors has affected the stability of local communities, making little distinction between urban and traditional rural dwellers. This phenomenon has spanned nearly half a century of change, leaving an impression that the majority of the population has become either permanent refugees or migrants divided into relatively stable climatic zones.

The government IPCC task force, headquartered in Washington on 29/10/2021, focused on revealing the reality of deterioration in human security for African populations in the regions most susceptible to the impacts of climate change. An increase of one degree Celsius in temperature results in a deterioration of about 2.7% in agricultural production. This worsens when we consider that most agricultural output relies on nature for irrigation. The deterioration of natural diversity and ecosystems due to rising temperatures and unexpected rainfall exacerbates the situation, leading to soil quality degradation and overall crop loss.

This task force, for instance, highlighted the case of Lake Chad, which serves as a livelihood source for around 30 million people in Chad, Niger, Nigeria, and Cameroon. Its water surface has shrunk by 90% since the 1960s, while the population continues to grow. The diminishing lake has disrupted social bonds, leading to mass migration towards larger population centers. This has caused social disruption, as a significant portion of the population no longer has the ability to settle within a specific geographic region. The predictions of this mentioned study suggest that tens of millions of people will migrate beyond their political borders, and North Africa will be among the receiving countries for millions of them.

With these findings, the natural environment in Africa has lost most of its systems and balance that once provided stability to the population's livelihoods. While human security aims to provide essential needs such as safety, public health, food, and communal living, many African countries are no longer able to fulfill these needs. Climate change has significantly damaged a large portion of resource availability and quality, leading to the emergence of a potential transformation in human security that could escalate into armed conflicts. This could further paralyze state activities and their capacities to maintain security. These countries, due to climate changes, have lost their food, economic, and health security, and the most threatening aspect is the loss of local communities' social systems that define connections among groups and individuals during times of peace and war.

Stimulating armed conflicts and increasing the burdens on armed forces

In the African continent, there are no fewer than 35 internal armed conflicts, and the factors that trigger them, along with other factors, coincide with the economic and social impacts of climate

change. It becomes clear that they have operated in a mechanistic manner, playing a role in accelerating these conflicts.

Through the social division among communities around the Great Lakes, post-Saharan Africa, the Horn of Africa, the Red Sea area, and the Darfur conflict, the farmer-pastoralist binary has been a prevailing social structure. As both agriculture and pastoralism have deteriorated due to the adverse effects of climate change, armed conflicts have erupted in these regions due to the depletion of resources and conflicts arising over grazing and agricultural lands, hunting, and overall surface resources. Furthermore, these conflicts have exacerbated exclusion from decision-making pathways, particularly by ruling elites seeking to control resources. This exacerbation amplifies the impact on existing conflicts, sparks new ones, or creates difficulties that parties involved cannot easily overcome. Researchers have found that these dramatic impacts form the foundation of armed conflicts in the mentioned regions and remain the primary determinants of their developments. From a perspective of political studies, there is a relationship between climate change and the ability of states involved in internal armed conflicts to respond to emergencies. Armed conflict eliminates already limited capabilities and weakens development in all its areas, and with the addition of the effects of climate, countries and local communities become incapable of providing even the most basic material needs, accompanied by a genuine inability to provide security³¹. Consequently, the fate of many of these African states in adapting to climate change is nullified, and thus the exposure to security risks and the dominance of armed groups outside the state, over extended geographic territories and crossing the borders of many countries, have played an important role in creating geopolitical transformations in Africa. These geopolitical effects manifest in states deviating from the principles of cooperation that they adhered to in previous decades, which were based on resource sharing and collaborative exploitation. Current conditions under the influence of climate change have driven different groups to compete and conflict over dwindling resources. This signifies a collective failure to ensure human security and the potential disintegration of territorial unity in some countries. All of these factors, or at least some of them, are capable of creating geopolitical conflicts and the dissolution of states where state authority does not extend over the entire region, but faces competition. This applies, at the very least, to all African countries with internal armed conflicts where deterioration is driven by two factors: armed conflict and climate change. As a result of this interaction, infrastructure collapses, territorial unity disintegrates, and the regional spread of armed conflicts in Africa becomes a distinctive feature, leading to the collapse of elements of human security. On the other hand, climate changes impose rapid intervention processes on countries to deal with disasters, secure and deliver timely relief, and provide protection in an environment unprepared for such changes. In other words, armed forces that were formed and trained for combat and defense purposes in general are urgently thrust into facing nature. They are assigned non-traditional tasks and exposed to climate-related disasters that lead to the destruction of their infrastructure, logistical bases, routes, and ports. As a result, their burdens have rapidly increased, which hinders their ability to achieve defense objectives such as eliminating armed conflicts, maintaining territorial integrity, and securing borders. Armed groups

can exploit climate-induced disaster situations to enhance their influence or seize control over relief efforts. It becomes evident that the maneuvering space for armed forces is restricted, and increased burdens and limited mobility lead to a state of failure and reduced capability. Consequently, states may find themselves unable to fulfill their primary task of providing security, placing many African countries on the brink of collapse.

Conclusion

The effects of climate change sparked widespread debate in academic circles upon their emergence, and the recognition of their danger to human life quickly followed. The African continent has been significantly impacted by these effects, touching all aspects of life and continuing to predict serious consequences that threaten local communities and nations. Amidst these changes, conflicts and wars over resources have escalated, exacerbating economic and social challenges. The social and economic infrastructure, both local and regional, has suffered, leading to far-reaching implications across the continent. Climate change had direct impacts on the daily lives of the population, causing destruction to resource bases, which led to competition and conflicts over these resources. The consequence was the disintegration of social ties that governed the relationships between local communities, which used to possess mechanisms for resolving disputes and sharing resources based on peaceful and cooperative principles. Under harsh climate conditions, Africa began to lose its traditional social structures, giving way to conflicts that tend to be predominantly armed. Regarding human security, researchers have affirmed that the most perilous threat to human security is the African individual losing their community's ability to provide protection, sustenance, and essential living requirements. Consequently, due to climate change, the African populace finds itself confronted with rising temperatures, storms, hurricanes, floods, and water scarcity. Research has demonstrated that specific regions in Africa are grappling with armed conflicts, wherein climate change is intricately intertwined with the underlying causes. Conflicts such as Darfur, Somalia, the Great Lakes region, and Central Africa have been influenced by the effects of climate change, exacerbating their propensity for armed strife. These regions are highly fragile and vulnerable to divisions and resource disputes stemming from the aftermath of hurricanes and droughts. Consequently, climate change exposes numerous countries to the need for additional (already limited) financial and material resources to confront these challenges. Peacebuilding efforts overseen by regional organizations or the United Nations face threats from sources of climate change that impact their operational bases and logistical facilities. These forces are not immune to the risk of being undermined by the potential of armed groups seizing control of devastated areas. This complicates or even renders peacekeeping and peacebuilding operations in the continent more difficult. One of the impacts of climate change on the continent is the threat it poses to the territorial integrity of many African countries, especially those facing internal armed conflicts. When destruction occurs due to storms and hurricanes, the maneuverability of armed forces is constrained, and supply routes for equipment and intervention forces are severed. This increases the opportunities for armed groups to dominate regions and expand their influence, or attempt to

achieve independence in those areas, thereby placing the territorial integrity of the state at stake.

Geopolitical shifts are occurring and escalating due to the direct influence of climate change. As resources diminish, inter-state conflicts intensify, leading to changes in existing cooperation or alliances, favoring new ones. These shifts are currently reshaping political and security structures, which could potentially introduce new disruptions to the international order. Research groups are diligently studying these dynamics and providing necessary recommendations.

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