

The Difficulties of Building Environmental Peace in Africa: Darfur Case Study

H.Beshir and W.Dawoud*

¹Department of International Relations, Faculty of Politics and Economics, Beni-Suef University, Egypt.

²Department of Political science, Faculty of Politics and Economics, Beni-Suef Universit, Egypt.

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Abstract: Environment, peace, and conflict are inseparable phenomena in the historical development of Africa. Over the years, environmental issues have taken center stage in African history. Sometimes, they led to peace, while others contributed to the conflicts in Africa. However, environmental scientists and practitioners have always addressed the environment and conflict separately from peace, thus ignoring how environmental factors contribute to peacebuilding. Therefore, this paper uses the descriptive analytical approach to inspect the link between environment, peace, and African conflict. The paper also seeks to monitor and analyze the difficulties of building environmental peace in Africa to explain the nature of building environmental peace, monitor ecological violations in the Darfur region, and highlight the international responsibility associated with environmental abuses in Darfur. Then the paper is divided into two main parts, the first of which deals with the nature of building environmental peace while addressing its dimensions and path. The second illustrates factors affecting building environmental peace in Darfur by shedding light on the challenges and manifestations of ecological disturbance.

Keywords: Building environmental peace, Africa, Darfur, conflict, post-conflict, peacebuilding.

Introduction

Academic interest in the causes of war and possible motives for peace increased after World War I. Over the next fifty years, various disciplines, such as international relations (IR), security, peace, and conflict studies, were institutionalized. With the end of the Cold War, the predominant focus on state security and inter-state warfare has given way to further extensive work on civil wars, post-conflict peacebuilding, and human security. In this range, intense debates have emerged on whether the scarcity of renewable resources, such as water or land, or the abundance of oil, diamonds, and other valuable commodities, will increase the risk of conflict.

Environmental peacebuilding results from various ecological, conflict, and peace connections that created several related threads to address the ecological risks of the contest and the environmental opportunities for peace. Besides contributions to natural resources, disputes, and climate change, the ethics include working on the ecological consequences of war, the use of natural resources to finance armed conflicts, the dynamics of disasters and conflicts, environmental factors in peace negotiations, the possible cooperation on common interests in shared natural resources, and the relations between building post-conflict peace, climate resilience, and natural resource management.

Based on the above, the researchers address the difficulties of building environmental peace in Africa by applying this matter to the Darfur region. The outbreak of the conflict in Darfur has led to a significant acceleration in environmental degradation

* Corresponding author E-mail: w dawoud@eps.bsu.edu.eg

processes that have undermined livelihoods over recent years. Consequently, the environmental factors of the conflict have worsened because of that crisis. Hence, the controversy over the Environment in Darfur shows how complex the conflict is, which has many levels, as different livelihood groups seek to adapt their ways of life to the increasing scarcity of resources, which happens in a situation where traditional rules of environmental management have weakened.

In this regard, this paper raises questions on the difficulties of building environmental peace in Africa and sheds light on the essence of Environmental Peacebuilding and the forms of environmental impairment in the Darfur region. Furthermore, the paper examines the international responsibility for environmental violations in Darfur. Therefore, the researchers follow the descriptive analytical approach to answer the questions of the paper and identify the difficulties of building environmental peace in Africa.

The paper has two key axes and a conclusion. The first tackles the essence of building environmental peace by shedding light on the concept of 'building environmental peace' and emphasizing significant dimensions and pathways for building environmental peace. Meanwhile, the second part illustrates the critical difficulties of building environmental peace in Darfur by demonstrating the critical challenges of building environmental peace in Darfur and revealing fundamental forms of environmental impairment in the Darfur region.

The Essence of Building Environmental Peace

Is the environment a cause for concern or a source of hope? In recent years, numerous studies have been devoted to the increasing tendency of environmental degradation that provokes conflicts or stimulates existing fights. However, to find solutions to these problems, peacebuilders are beginning to realize that environmental factors can play a crucial role in solving or creating problems. Therefore, explaining the causes of environmental conflicts is essential to understand how the environment and natural resources can facilitate peacebuilding.

Many factors cause environmental conflicts, such as scarcity and the destruction of natural resources. Moreover, the transboundary movement of hazardous materials, loss of livelihood, and pressure on the population groups that depend on natural resources may lead to demographic pressure, forced migration, and degradation caused by climate change.

Although some circumstances may only lead to a commercial dispute, others can be inherently more serious and contribute to or cause intense clashes. Such incitement is more likely to occur in areas where the environment has been seriously depleted; for example, in Africa, many conflicts between and within states have been fueled by greed to extract resources, leading to environmental degradation.

Although the scarcity of natural resources can be the root cause that can sometimes lead to inter/intra-state unrest, resources can simultaneously play a vital role in peacebuilding. They can help to develop long-term sustainable peace and are, thus, essential factors in the post-conflict period in order to promote lasting peace. Therefore, the rationale behind integrating environmental resources into all peacebuilding actions is critical.

Based on the above, this section will discuss the essence of environmental peacebuilding by highlighting the concept of building environmental peace and demonstrating the dimensions and pathways.

The Concept of Building Environmental Peace

Environmental issues were first identified as a potential cause of intense conflict in the 1987 United Nations report "Our Common Future" (The Brundtland Report). Since then, a growing body of academic literature has examined the causal links between the outbreak, duration, and intensity of conflict on the one hand and the scarcity of resources - or their abundance - on the other.

From the early 2000s onwards, the interdisciplinary literature challenging the relationship between environment and conflict has shifted the focus from resource scarcity to interdependence and sustainable development, viewing environmental challenges as a catalyst for transnational cooperation rather than as a cause of intense conflict. Initially, the "environmental peacemaking" approach focuses on shared natural resources as a tool for conflict resolution. However, it has evolved into a transformative framework that includes conflict prevention and post-conflict peacebuilding.¹

Accordingly, scholars and practitioners continue to use different definitions of environmental peacebuilding; this diversity arises partly from the interdisciplinary nature of the field, the broad field of research, and the diversity of the actors involved. In addition, various labels, such as environmental peacemaking, environmental diplomacy, science diplomacy, and peace

¹ Ken, Conca, Dabelko, Geoffrey D., *Environmental Peacemaking*, Woodrow Wilson Center Press, 2002, P1.2

ecology, have been adding to this complexity.

Given the multiplicity of actors and the coexistence between conflict and cooperation at different levels, the environmental peacebuilding literature highlights the transformative potential of environmental cooperation and its contextual nature. Environmental peacebuilding relies on the mutual benefits of cooperation that transcend the self-interest rationale of conflicts. Thus, this can contribute to the pacification of human and natural systems in a lasting and multifaceted manner. This premise is supported by most non-orthodox economic approaches, making 'careful, rational choice' the primary driver of human action. Conflict is not entirely determined by competition but by many factors. Policymakers and international organizations are also increasingly turning to environmental cooperation as a potential tool for peacebuilding to address resource-driven conflicts and their aftermath.²

Thus, environmental peacebuilding is now part of an emerging global research agenda and a priority area for many international organizations. In addition, it acts as significant funding opportunities channeled through bilateral agencies or multilateral funds, such as the United Nations Peacebuilding Fund, the European Union-United Nations Partnership on Land and Natural Resources Conflicts, or the Global Research Program on Post-Conflict Peacebuilding and Natural Resources.³

Despite the growing interest of researchers and practitioners in demonstrating causal links between environmental cooperation and peace, there remains a challenge due to the need for a coordinated framework and empirical data to assess the relationship between the environment and peace. The environmental peacebuilding literature consists primarily of distant case studies, small cross-country comparisons, and fewer attempts at studies that focus primarily on water-related issues. Comparative studies are complicated by the multiplicity of contexts and actors involved and the multi-causal mechanisms affecting environmental peacebuilding. Additionally, "environment" and "peace" have multifaceted meanings based on various disciplines such as peace and conflict studies, political environment, water policy, and institutional and environmental economics.

Environmental peacebuilding attempts have yet to reach a specific and distinct set of systematic and traceable measurable scientific activities. They must still build a coherent theory based on solid epistemological assumptions and empirical evidence. Nevertheless, it has grown into a "blanket term covering a wide range of aspects related to the relationships between the environment, conflict, and peace. Therefore, this entails the risk of transforming environmental peacebuilding into a buzzword to attract international funds."⁴

For the study, we use the following definition: Environmental peacebuilding includes the multiple approaches and pathways through which the management of environmental issues is integrated and could support conflict prevention, mitigation, resolution, and recovery.⁵ As this definition covers international and domestic arenas and conflict situations in which intense conflict is latent, active, or has occurred in the past, environmental peacebuilding also applies to social conflict and politically fragile situations at multiple levels.

Based on the above, environmental issues have some characteristics that make them a good candidate for building environmental peace:⁶

- I. Many environmental issues transcend political boundaries, making it hard- if not impossible - for countries or communities to address them unilaterally. Instead, parties must work together to preserve and manage resources or mitigate adverse impacts. This interdependence can bring the parties to the negotiating table, even when disputing other issues.
- II. Environmental issues often require long-term cooperation, providing an opportunity to build trust over time. Common environmental challenges are rarely resolved or managed in 'one-off' agreements. It requires constant consultation to deal effectively with common environmental conditions that can change quickly with little warning.

2 What is Environmental Peacebuilding? The Peace Science Digest, (January 23, 2020), (July 26, 2022), available at <https://peacesciencedigest.org/what-is-environment-creating/>

3 International Day for the prevention of the use of the environment in war and military conflict, United Nations, Date of reading (July 26, 2022), at the following available at <https://www.un.org/en/observances/environment-in-war-protection-day>

4 Ginty, Roger Mac, where is the local? Critical localism and peacebuilding, *Third World Quarterly* 36(5), June 2015, P843-844.

5 Weinthal, Erika, et al., The past and future(s) of environmental peacebuilding, *International Affairs*, Volume 97, Issue 1, January 2021, P3.

6 Dabelko, Geoffrey D., From Threat to Opportunity: Exploiting Environmental Pathways to Peace, Prepared for "Environment, Peace and the Dialogue Among Civilizations and Cultures," Tehran, Islamic Republic of Iran (May 9-10, 2006), P2-3.

- III. Environmental issues are more relevant to civil society interactions with civil society than other bilateral issues, such as currency trading or the proliferation of nuclear weapons, which are strictly controlled by elite financial institutions or the state. The ability of civil society to work on environmental issues strengthens cross-border relationships that may serve as a prelude to dialogue between states.
- IV. Sometimes environmental issues constitute "high politics," while at other times, "low politics." When environmental issues are of high political priority, parties are often forced to come together and devote political attention since environmental issues cannot be taken as insignificant.

For example, an aquifer shared by two or more countries in a water-scarce region requires the closest political attention. Nevertheless, when environmental issues are of low political priority, they can offer a ground for cooperation within a more significant conflict. In this case, environmental issues do not threaten the most controversial issues in the relationship and, thus, may provide a safe first step for dialogue.

Given the diversity of potential environmental pathways for peacebuilding, high and low political conditions can be beneficial.

The Dimensions and Pathways of Building Environmental Peace

There is a general agreement that issues related to environmental degradation can lead to conflict in a region. However, their ability to provide a platform for collaboration and cooperation to address common challenges is often underestimated. The common environmental issues motivate people to meet up and disregard regional, political or ethical conflicts. In the regions where many communities depend on shared resources, such as water or land, concerted and collaborative endeavors to manage these resources successfully could act as drivers of peace and, thus, build mutual trust between conflicting parties.

Therefore, environmental peacebuilding emerged in the late 1990s mainly as a critique of the dominant research focus on environmental conflict. Environmental peacebuilding studies have, since then, produced rich empirical studies focusing, among other things, on cooperation and competition for shared water resources between states, interstate water resources, the value of extractive resources in the continuation of armed conflicts, the roles of environmental services, as well as the adaptation to and mitigation of climate change.⁷

Those studies addressed building environmental peace as the sustainable management of natural resources, whether before, during, or after conflict, emphasizing the potential of environmental management, incredibly cooperative management between conflicting actors, to support peace and stability.

This is consistent with environmental peacebuilding as "multiple approaches and pathways through which the management of environmental issues is integrated, and can support conflict prevention, mitigation, resolution, and recovery." However, some differences are noteworthy, particularly about the meaning of peace and stability, which point to two dominant perspectives:⁸

- I. Cooperation perspectives focus on cooperative environmental and natural resource management to facilitate peacemaking through spillover effects. Scientists tend to focus on interstate relations rather than post-conflict peacebuilding within states.
- II. Resource risk perspectives: which emphasize the risks of instability caused by resources. They often focus on intra-state conflicts, including in peace processes, and the need to address these risks and maintain the absence of intense conflict or negative peace by facilitating environmental cooperation.

A) Dimensions of Environmental Peace Building:

Environmental peacebuilding works on three dimensions:

I. Security Dimension:

Comprehensive and sustainable management of natural resources helps avoid conflicts over them or the associated ones.

⁷ Krampe, Florian, et al., Sustaining peace through better resource governance: Three potential mechanisms for environmental reconstruction, World Development, Volume 144, August 2021, P2-3.

⁸ Ibid, P2.

Unfortunately, tensions over land, water, and other resources usually exist in many regions of the world and could - under unfavorable conditions - turn into violence.

Similarly, grievances about the inequitable distribution of benefits from oil, gas, and minerals have been a catalyst for armed conflict. Moreover, unsustainable environmental exploitation, with little concern for surrounding communities, undermines human security and can provoke protests and intense resistance.⁹

II. Economic Dimension:

Livelihood insecurity and poor economic performance often help to anticipate intense conflict and peacebuilding failures. However, these factors also increase the grievances of the affected population and provide opportunities for armed groups seeking to recruit marginalized youth or exploit state failure. At the micro level, effective and sustainable management of environmental issues is critical to achieving water security, food security, and access to agricultural inputs at the end of any conflict.

A focus on governance is also vital if the environmental infrastructure is destroyed during the intense conflict. In addition, disaster risk reduction is crucial if we build secure livelihoods. Finally, water and other natural resources are essential to providing basic services at the macro level.¹⁰

III. Political and Social Dimension:

Shared environmental challenges are potential entry points for cooperation between communities/states, even if their relations are unfriendly or lack trust. Environmental challenges also provide opportunities for cooperation as they go beyond political boundaries; they may be less politically sensitive than other topics and may motivate actors to consider longer time horizons. Once initiated, environmental cooperation can lead to agreeing on establishing institutions that lead to greater integration and conflict resolution. These adaptive and flexible institutions are essential to building the ability to withstand and respond to global challenges, such as climate change. In addition, positive cooperation on environmental challenges can help build trust and understanding between social communities and political leaders. This dynamic is often referred to as environmental peacebuilding¹¹

B) Environmental Peace-building Pathways

Three pathways contribute to sustainable environmental peace by integrating climate and environmental risks into peacebuilding methodologies. They are as follows:¹²

I. Cooperation / Technical Solutions:

This pathway aims to reduce the scarcity and degradation of environmental resources by using technical solutions implemented through coordinated action. Technical coordination can include an agreed division of labor between the parties to the conflict and reduce tensions between/within states. By reducing environmental problems and associated costs, this first line of environmental peacebuilding has the potential to contribute to resolving environmental causes of conflict by highlighting the mutual benefits of environmental cooperation and coordinated responses to shared environmental challenges. While disparate actors may engage in environmental cooperation with differing interpretations of the situation to protect their interests, successful cooperation can increase

9 Christensen, Darin, Concession stands: how to mine investments incite protest in Africa, *International Organization* 73: 1, 2019, P69-72.

Tobias Ide, why do conflicts over scarce renewable resources turn violent? A qualitative comparative analysis, *Global Environmental Change* 33: 1, 2015, P64-.66

10 Bruch, Carl, Muffett, Carroll, Nichols, Sandra S., *Natural Resources and Post-Conflict Governance: Building a Sustainable Peace*, in Carl Bruch, Carroll Muffett, and Sandra S. Nichols, eds., *governance, natural resources, and post-conflict peacebuilding* (Abingdon: Routledge, 2016), P6 – 9. And also: Elly Harrowell and Alpaslan Özerdem, 'Understanding the dilemmas of integrated post-disaster and post-conflict reconstruction initiatives: evidence from Nepal, Sri Lanka and Indonesia', *International Journal of Disaster Risk Reduction* 36: 5, 2019, P7 - .01

11 Barnett, Jon, The dilemmas of normalizing losses from climate change: towards hope for Pacific atoll countries, *Asia Pacific Viewpoint* 58: 1, 2017, P8-.01

12 Dresse, Anaïs, et al., *Environmental reconstruction: Towards a theoretical framework*, *sage Journals*, (November 9, 2018), (July 27, 2022), available at <https://journals.sagepub.com/doi/full/10.1177/0010836718808331>

interactions across borders interdependence and lead parties to identify shared values and develop future pathways for cooperation.

II. The Reform Dimension of Peace Building:

The second pathway provides shared spaces for recognizing historical grievances and recognizing the other party as a legitimate interlocutor. In recognition of the interdependence caused by the biophysical environment, environmental issues represent an opportunity to stimulate positive interactions by creating alternative and neutral spaces whereby parties to the conflict can share common values and change mutual stereotypes.

III. Building Sustainable Environmental Peace:

The root causes of potential conflicts can be addressed by focusing on the equitable allocation of resources as a prerequisite for promoting sustainable peace. Based on equal power relations, joint management systems can be established when the parties agree to transfer part of their influence to the overall group for the common good. While the management of shared resources relies on teamwork and is generally based on a higher level of institutionalization than the previous two pathways, it could be limited by teamwork problems arising from conflicting interests. Although the environmental peacebuilding literature is primarily ignored, shared resource management systems, if accessed through an inclusive and equitable process, constitute a significant step toward promoting sustainable peace.

Based on the above, the three general pathways presented above, from technology to sustainable environmental peacebuilding, can flow through the 'feedback loop.' However, over time, the conditions, mechanisms, and outcomes of environmental peacebuilding interact with environmental and political changes, which may cause the parties to deviate from the planned strategies and form an additional and different building framework.

The Difficulties of Building Environmental Peace in Darfur

With the outbreak of the conflict in Darfur, the conflict has significantly accelerated the environmental degradation processes that have undermined livelihoods over recent years. The environmental factors of the conflict have worsened because of that crisis. Thus, the debate on environmental peacebuilding in Darfur emphasizes the complexity of the conflict. On the one hand, it has many levels. On the other hand, different livelihood groups seek to adapt their ways of life to the increasing scarcity of resources which occurs in a course where traditional rules/norms of environmental management have been weakened.

In short, the comprehensive environmental narrative of the Darfur crisis calls for a new approach to environmentally sensitive relief and peacebuilding. Based on this, the researchers address the difficulties of building environmental peace in Darfur by examining the challenges of building environmental peace in Africa and illustrating the forms of environmental impairment in the Darfur region.

The Challenges of Building Environmental Peace in Africa

The relationship between natural resources, the environment, and conflict is multidimensional and complex. Natural resources are the sources of wealth that occur in a natural state, such as timber, water, land, wildlife, minerals, stones, and hydrocarbons. Environment means the physical conditions that affect the natural resources (climate, geology, threats, and dangers) and the ecosystem services that sustain them. Therefore, many countries are currently experiencing challenges in using natural resources and allocating natural wealth. These challenges have sometimes led to internal, sometimes intense, tensions.

Conflicts over natural resources appear to fall into two main categories:

- I. First, disputes over the equitable distribution of wealth of extractive resources, such as minerals, metals, stones, hydrocarbons, and timber, originate primarily from the failure of national governance.
- II. Conflicts over the direct use of land, forests, water, and wildlife resources, result from physical scarcity when domestic demand exceeds the supply of resources.

Environmental factors are rarely the only cause of conflict because ideology, ethnicity, deteriorating economic conditions, rapid regime change, low levels of international trade, and conflict in neighboring countries are all-important. However, the exploitation of natural resources and the associated environmental degradation can be significant factors in the conflict,

increasing the intensity and duration of the violence and complicating the resolution.

There are three main pathways linking the environment, natural resources, and conflict that include:¹³

- I. Contributing to the outbreak of conflict: Attempts to control or access scarce or extractive natural resources can contribute to conflict.
- II. Conflict financing and sustainability: Once conflict erupts, extractive resources may fund arms and armies or become a strategic consideration in land acquisition. In such cases, conflict duration would be prolonged due to new funding sources or in an attempt to control a resource-rich area.
- III. Impairment to peacebuilding: The prospects for peace may be undermined by individuals or factions that fear losing access to the revenues from exploiting resources. They may actively undermine peace processes to take advantage of conflict conditions.

The availability of natural resources is easy to capture and exploit. They cause not only make rebellion economically feasible and change the dynamics of the conflict itself, as revenues from natural resources allow combatants to fight for longer and encourage them to turn their activities toward acquiring tangible assets, such as diamond mining. Thus, revenues and wealth can change the mindset of the combatants, turning war and rebellion from purely political to economic activity as conflicts become less about grievances and more about greed.

In other cases, local-level conflict over natural resources occurs in stressed or degraded environments. The demand for scarce resources, such as land and water, exceeds available supplies, often exacerbated by demographic pressures and disasters like drought. Unless local institutions or practices can control these threats, scarcity pressures can lead to forced migration or intense conflict. In Darfur, for example, the ongoing loss of fertile land and the rapid increase in human and livestock populations are among the many specific pressures that have driven the region into conflict.¹⁴

Demographic pressure, urbanization, inequitable access to land, land shortages, and resource depletion are widely expected to intensify in the coming decades, with profound impacts on the stability of rural and urban areas. With 75 million people added to the planet annually, the population of the 50 least developed countries is expected to double by 2050. One in seven people on this planet already lives in slums, and one in three people lives on US\$2 or less per day.¹⁵

Finally, climate change is increasingly regarded as a threat to international security. The re-mapping of water availability, food security, disease spread, coastal borders, population distribution, and climate change can exacerbate tensions and provoke new conflicts. The 2008 spring food crisis shows how the convergence of different global trends significantly affects the most vulnerable groups and could lead to instability in different parts of the world.

Based on the above, we find that Africa's most significant environmental peacebuilding constraints, in general, are the following points:

- I. Climate Change: Climate change is widely recognized as a "threat multiplier" due to its role in exacerbating the definitive cause of conflict. Most horrible is how climate change alters competition for increasingly scarce resources. Research on the so-called "heat-aggression relationship" indicates a 10 to 20% increase in armed conflict risk associated with each 0.5°C increase in local temperatures. This hypothesis has recently been expanded, as research indicates, to state that between 1970 and 2015, local temperature increases in 159 countries have also seen an increase in terrorist attacks and subsequent deaths. When the temperature rises, the number of terrorist attacks and deaths resulting from terrorist attacks tends to increase.¹⁶ Such research paved the way to limit the growth of climate change, which has been recognized as a fundamental prerequisite for achieving peace in the world. For example, in the context of addressing the rise of terrorist groups in Africa, Security Council Resolution 2349 of

13 From Conflict to Peacebuilding: The Role of Natural Resources and the Environment, United Nations Environment Programme, February 20, 2009, P6-8.

14 Ibid, P9.

15 Brown, Oli, From Conflict to Peacebuilding: The Role of Natural Resources and the Environment, UNEP/Earth-print, 2009, P8.

16 Jake Hussona, How is climate change driving conflict in Africa? AOAV, (March 10, 2021), (July 29, 2022), available at <https://aoav.org.uk/2021/how-is-climate-change-driving-conflict-in-africa/>

2017 recognized "the adverse effects of climate change and environmental changes, among other factors on the stability of the region, through water scarcity, drought, desertification, land degradation, and food insecurity." 17

- II. **Multiple Conflict Parties:** With significant cooperation from the main parties involved in the conflict, it would be easier for any process to be successful. There is a broad generalization, which assumes that 'the more different actors are involved in a conflict, the more difficult for them to achieve full cooperation. As the number of primary disputants increases, it becomes more difficult for any policy or procedure to be satisfactory to all parties. Moreover, there is an increased opportunity to undermine the process by refusing to cooperate and instead choosing to renew violence as a strategy to achieve objectives.
- III. **Ignoring the Environmental Dimension in the Dispute Settlement Process:** The UN often conducts post-conflict operations with little or no prior knowledge of the affected country's natural resources or their role in fueling the conflict. In many cases, years of intervention pass before natural resource management receives sufficient attention. Failure to respond to the population's environmental and natural resource needs can complicate promoting peace and even contribute to conflict relapse. Therefore, the United Nations' statements and interventions to settle conflicts in Africa ignored the importance of the environmental dimension. As the priority had been security, humanitarian dimension, disarmament processes, and the restoration of constitutional order, the environmental dimension would be addressed in the later stages of the peacebuilding process.

With the emergence of climate change and its consequences on developing countries, however, the environmental dimension has become a priority for the United Nations and international organizations in settling conflicts and building peace. For example, the Sahel region of West Africa has been more affected by the consequences of climate change than most regions.

As temperatures rose 1.5 times above the global average, this phenomenon contributed to increased droughts and prolonged rainfall, which contributed to more conflicts and disputes within the region's countries. The United Nations had previously reported strategies to address the situation in the region¹⁹. Those strategies focused primarily on the security dimension. However, in recent years, they began to realize that the security dimension alone will lead to endless conflict and that there is a need to focus on the environmental dimension with security simultaneously.¹⁸

Forms of Impairment to the environment in the Darfur Region

The United Nations Environment Program (UNEP) described desertification as "the biggest environmental problem in Sudan." The ongoing loss of fertile land is one of the many environmental pressures that have driven Darfur's social, political, and economic systems into intense conflict. Indeed, the supply of fertile land is declining while the numbers of people and livestock are increasing rapidly. As these underlying tensions increased, the weakness of the institutions that control access to land and water became more evident, and some groups, such as pastoralists, were particularly disadvantaged. Marginalized groups were, therefore, recruited as proxy war militias, where they could raid cattle.

In addition, several factors contributed to fueling the conflict in the Darfur region:

- I. **Economic Factors:** The Darfur region suffers from weak economic infrastructure and the absence of paved roads linking it to the capital or the neighboring states or the regional capital to the municipalities. Darfur was historically one of the most remote areas in Sudan. Even in normal circumstances, it is hard to reach the Darfur region because it is so far away from the capital, Khartoum. It also needs more development projects to absorb local labor. It suffers from weak educational services and a high rate of educational dropouts, the transforming of many producers into

17 Resolution 2349 (Peace and Security in Africa – Lake Chad Basin) S/RES/2349, Global Centre for the Responsibility to Protect, (March 31, 2017), (July 29, 2022), available at <https://www.globalr2p.org/resources/resolution-2349-Peace-and-security-in-Africa-lake-chad-basin-s-res-2349/>

18 Bodewig, Christian, Climate change in the Sahel: How can cash transfers help protect the poor? Brookings Institution, (December 4, 2019), (July 29, 2022), available at <https://www.brookings.edu/blog/future-development/2019/12/04/climate-change-in-the-sahel-how-can-cash-transfers-help-protection-the-poor/>

consumers affected by social changes, and an increased percentage of unemployed people and marginal professions.¹⁹

II. Political Factors:

III. The political conditions played an influential role in the Darfur crisis until the nature of the crisis and the scale of its geographical expansion were magnified, extending until it shocked the world in 2003 with intense and successive military strikes against the regular army, covering the three states of the Darfur region. Two armed groups launched a war in Darfur against the government of Sudan. The Sudan Liberation Army and the Justice and Equality Movement started the war by launching attacks on cities, government facilities, and civilians in Darfur. They killed several hundred police officers and destroyed more than eighty police stations in the attacks that have led to a security vacuum that further distorted Darfur's civil society. Unfortunately, these battles motivated other anti-government protest movements outside the region, some of which were earlier to the crisis of the West, such as the "Beja and Free Lions" conference in the east and the "Kush" movement in the north.

IV. In contrast, others were born following the crisis, such as Kordofan's "Karama" movement. On the other hand, these fierce battles ravaged defenseless civilians in Darfur. Adding to the political crisis is a humanitarian dimension that has, in turn, revealed deep cultural contradictions, the danger of which extends to all parts of Sudan, and its damaging effects are reflected on the African continent in general.²⁰

V. Natural Factors: Evidence suggests that there is an inverse relationship between the rate of rainfall and tribal conflicts, as disputes and conflicts increase when the amount of rainfall decreases because this leads to scarcity of pastureland and water, and therefore, an increase in mobility and contact with others that may result in tribal conflicts. Therefore, natural geographical factors have created a suitable ground for tribal conflicts following the drought. Therefore, tribes have migrated from their territory and disputed with these tribes.²¹ Turning to the Darfur crisis, North Darfur and parts of West and South Darfur have suffered from recurrent droughts, crop yields have remained low and unpredictable due to irregular rainfall, and pests spread a lack of agricultural inputs. Livestock has diminished due to pastures and water scarcity, which contributed to the continued increase in the migration of the local workforce in search of work, leaving behind children, women, and the elderly.²²

VI. Security Factors: The borders of the Darfur region in western Sudan extend over a long distance, shared with three countries: Libya, Chad, and Central Africa. Although these borders are remarkably long, there is no adequate security on them, as colonialists randomly drew them, which led to the splitting of some tribes between neighboring countries. Thus, these tribes are partially in Darfur and neighboring countries, which has made it easier to move between both sides of the borders from one country to another.

Nevertheless, when the bilateral government re-annexed Darfur to the Khartoum government, it did not disarm the tribes. Thus, continual security checks create an atmosphere of conflict and fighting in this region. In addition, the leakage of large arms to Darfur's people deteriorated the region's security situation.²³

For instance, the influx of modern small arms has caused more deaths during the Darfur crisis since the war in Chad, and the resulting conflicts; the rebels appear to have been identified within two or three communities — out of 80 tribes, and ethnic groups shared between the nomads and sedentary communities — from the Furr, Masalit, and Zaghawa tribes that

19 Political Encyclopedia: Darfur Region, Date of reading (July 29, 2022), available at

<https://politicalencyclopedia.org/dictionary/%D8%A5%D9%82%D9%84%D9%8A%D9%85%20%D8%AF%D8%A7%D8%B1%D9%81%D9%88%D8%BI>

20 Rafat, Iglal, the Darfur crisis: its cultural and political dimensions in: "Sudan at a crossroad, after the war and before peace," the Arab future book series, Studies and Arab unity center, Beirut, Lebanon, September 2006, page 153-156

21 Political Encyclopedia: Darfur Region, op. Cit.

22 Govt. Sudan, Understanding Darfur conflict, relief web, (January 19, 2005), (July 29, 2022), available at

<https://reliefweb.int/report/sudan/understanding-darfur-conflict>

23 Political Encyclopedia: Darfur Region, op. Cit.

extend on the Sudanese-Chadian border.²⁴

In terms of Environmental Violations in the Darfur Region:

No one can deny that any conflict can, in most cases, lead to an abuse of the environment in the regions where the conflicts occur. Indeed, Darfur had been affected by the conflicts that negatively affected the environment, bearing in mind that long-term environmental degradation and the loss of traditional environmental management have dramatically accelerated during the current crisis, whether through mass displacement or the fighting itself. This places an additional burden on Darfur's fragile ecosystem and related livelihoods.

Amid the crisis that afflicted the Darfur region, people cut down large tracts of forests. As a result, the tree cover has become so sparse that refugees in some areas had to go for 75 km from their camps to find wood that they sell for construction or use as firewood, according to a 2009 United Nations report entitled "Poverty, Distortion, and Deforestation." The report also noted an increase in the demand for wood in Darfur's three major cities, El Fasher, Nyala, and El Geneina, since the beginning of the conflict in 2003. In addition, the number of sawmills and wood-fired brick kilns also increased to meet the growing demand for construction materials needed to establish new bases for peacekeeping forces, refugee camps, and United Nations staff accommodation.²⁵ Reports have also confirmed that militia forces and government soldiers have begun to profit from collecting and selling mahogany and other hardwood trees for the furniture trade.²⁶

It is worth noting that about 52,000 trees are burned annually in the brick kilns alone, which means "the current pattern of brick-making has a catastrophic impact on the fragile environment of Darfur." In addition, the kilns occupy and often destroy valuable agricultural land by uprooting the clay soil around villages and cities to be used in the brick making.²⁷ The unprecedented concentrations of the population in Darfur have also drained local resources. For example, in Abu Shouk and al-Salam camps, 12 to 15 wells out of the 66 holes dug have run dry.²⁸

The consequences of the conflict in Darfur also continued through displacements; for example, farmers who were forced to leave their fields due to conflict often found the timber trade to be the only business available after they turned to displacement camps.

Displacement has caused severe environmental degradation through the following processes:²⁹

- I. Uncontrolled deforestation is taking place due to the collapse of governance, driven by the role of timber and fuelwood in the economy of war and crisis.
- II. The destruction of natural and physical assets as a feature of the war, e.g., the farmers' crops being grazed by pastoral livestock, pastures burned to prevent grazing, and hand pumps destroyed.
- III. Livelihood strategies for the crisis have short-term prospects, undermining the natural resource base.
- IV. Migration routes are blocked, resulting in overgrazing in areas where livestock is concentrated.

Indeed, the forms of environmental impairment due to the Darfur conflict needed to be clarified. Alongside, the reports issued by the fact-finding committees indicated that there were crimes committed in the Darfur region that constitute severe violations of the International humanitarian law and the international human rights law, which illustrates a neglect of the importance of the environmental dimension.

The International Fact-Finding Commission submitted, on January 25, 2005, a full report on the results of its investigations to the Secretary-General. The Commission found the Government of Sudan and the Janjaweed militias responsible for severe violations of international humanitarian law and human rights law that constitute crimes under public international law. In particular, the Commission found that the government forces and militias carried out indiscriminate attacks that included

24 Govt. Sudan, Understanding Darfur conflict, Op. Cit.

25 Journal of Environment and Development: The Darfur Conflict destroys its Environment, G: 153, December 2010, P 29-30.

26 New Scientist and Reuters, Darfur crisis is stripping the Environment, New Scientist, (December 10, 2008), (July 29, 2022), available at <https://www.newscientist.com/article/dn16248> .

27 Journal of Environment and Development: The Darfur Conflict Destroys Its Environment, op. Cit., P. 30.

28 Bromwich, Brendan, UNEP, Environmental degradation and conflict in Darfur: implications for peace and recovery, Humanitarian Practice Network, (July 2008), (July 30, 2022), available at <https://odihpn.org/magazine/environmental-degradation-and-conflict-in-darfurimplications-for-peace-and-recovery/>

29 Ibid.

killing civilians, torture, enforced disappearance, destruction of villages, rape, and other forms of sexual violence, as well as looting and forced displacement throughout Darfur. These acts were carried out widely and systematically and, thus, constitute crimes against humanity.³⁰

Overall, the environmental deterioration and its repercussions in Darfur have intensified recently and undermined the prospects in the region. This deterioration is primarily driven by the strong human impact on the environment; to some extent, this impact is the expected result of rapid population growth as more people consume more resources. In addition, environmental concerns have often been the root cause of conflict in the region where people, especially farmers and herders, clash over access to natural resources. Accordingly, the multiplicity of conflict parties, climate change, and the neglect of the environmental dimension in the peace process has had repercussions on the continuation of the conflict in Darfur.

Conclusion

Through this paper, the researchers sought to clarify the difficulties of building environmental peace in the African continent by applying it to Darfur. For the sake of answering the questions, the researchers divided the paper into two sections; the first section dealt with: the essence of building environmental peace, and the second topic addressed the difficulties of building environmental peace in Darfur. Finally, the paper concluded with results and recommendations that could be summarized as follows:

- I. Common environmental challenges are potential entry points for cooperation between communities/states, even if their relations are unfriendly or lack trust. Environmental challenges also provide opportunities for cooperation because they transcend political boundaries and may be less politically sensitive than other topics.
- II. Environmental peacebuilding constitutes the sustainable management of natural resources, whether before, during, or after the conflict, emphasizing the potential of environmental management – particularly cooperative management between conflict actors – to support peace and stability.
- III. Environmental peacebuilding encompasses multiple approaches and pathways through which the management of environmental issues is integrated and can support conflict prevention, mitigation, resolution, and recovery. Moreover, many environmental issues transcend political boundaries, making it hard - if not impossible - for countries or communities to address them unilaterally.

This paper recommends including natural resources and environmental issues in integrated peacebuilding strategies. In many cases, years of intervention pass before natural resource management receives adequate attention. Failure to respond to the populations environmental and natural resource needs can also complicate the task of peace promotion and even contribute to the escalation of conflict. Alongside this, it is necessary to take advantage of the potential of environmental cooperation to contribute to peacebuilding. Every country must use and protect vital natural resources such as forests, water, fertile land, energy, and biodiversity. Moreover, it is significant to consider the effective management of natural resources and the environment as an investment in conflict prevention.

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³⁰ Haddad, Kamal, The Legal and International Dimensions of the Darfur Crisis, Lebanese National Defense, p: 60, May 2007, date of reading (July 30, 2022), available at <https://www.lebarmy.gov.lb>

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