

The Impacts of Climate Change on Human Rights in Africa

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Abstract— *This article explores the complex relationship between human rights law and climate change. The study further examines how climate change can affect human rights, while also considering how climate change can create barriers to the enjoyment of these rights. Through a comprehensive analysis of the literature and real-world case studies, the article provides a nuanced understanding of how climate change can impact human rights and offers recommendations for policymakers seeking to balance the interests of inventors and society as a whole.*

Keywords— *Climate change and human rights.*

I. INTRODUCTION

Rainfall changes can have a variety of good and bad effects. Increased rainfall can prevent certain disaster scenarios. However, the increase in scattered heavy rains and possibly shorter wet seasons may be more of a hazard. This causes landslides, loss of crops and homes, and increases the chance of several waterborne diseases. Many countries have seen floods in recent years, with some having irreparable damage. Global warming is also predicted to increase the frequency of some very severe weather, in storm areas and a possible front edge of hurricanes. This form of climate change causes an acute impact, and in many cases the only prevention is evacuation. However, with the increase in extreme weather globally, predictions for disasters always take into account which areas are more likely to be struck (Kassegn & Endris, 2021). This is a clear sign of Weather's discrimination against humanity, which will lead us to the discrimination of its race.

It is all well and good for me to spout out random sayings about the impacts and effects of climate change. However, as I mentioned before, human attributions to these changes are of higher importance. There is no point in discussing how the physical Earth is changing if

it does not affect the human race. Everyone knows about climate change in the form of global warming. This, in turn, has caused many different changes to the environment. Polar ice caps are melting, higher temperatures mean that forest areas and agriculture may move to higher altitudes. Precipitation has increased across the world, on average, but some areas are experiencing drought and this is leading to an increased incidence of disastrous wildfires. Many people have read about this, but few have related this to Africa. In effect, the African climate has been disrupted, especially over the last 2-3 decades. High-rainfall areas receive more and low-rainfall areas receive less (Trisos et al., 2020). This spells disaster for countries such as Ethiopia, where increased drought will increase famine and diseases of which its people are already fighting a losing battle. The cause of the change may be up for discussion. Most climate change is usually due to increased levels of greenhouse gases, and in turn, has a 'domino effect' on other factors. The gases usually wind up around the Equator and since Africa is centered on this, it has the receiving end of many forms of climate change. So here we have a definite cause with probable future effects. This can also act as a shining light on

human rights and how they can be affected. It is the job of all good leaders to reduce and prevent the onset of any bad scenario for his/her people and prevention is also a big part of emergency planning. Depending on how successful Africa is in the prevention of climate change effects will depend on its stance on a very long-term impact.

II. BACKGROUND ON CLIMATE CHANGE IN AFRICA

It should be noted that there are a lot of uncertainties in the potential future of African climate, and the exact details of changes by region are not possible to predict. This is due to a complex interaction of climate systems and aerosols, and the inherent unpredictability of the African climate itself. Models do not agree on the exact nature of temperature change or even the sign of precipitation change in some areas. The projections are based on a range of models and emissions scenarios. This does not mean that preparations for adapting to climate change can be put off until the picture is clearer; in fact, it is quite the opposite. The lack of action now on mitigation and adaptation will only serve to increase the impacts felt by future generations of Africans. Flexible measures based on experience and learning may be required, and it will be important to continuously monitor and reassess the best way forward as the climate changes (Atapattu, 2020).

Africa is the second most vulnerable continent to climate change (after small island developing states) and the most vulnerable region. The reasons for this vulnerability are complex and varied and include a heavy reliance on climate-sensitive sectors and low adaptive capacity. Africa contributes a very small proportion to global greenhouse gas emissions, yet the continent is on the front line when it comes to the effects of climate change. The situation is already bleak and appears to be getting worse. Models are not completely reliable, but trends from observed data indicate that extreme temperature and precipitation events are becoming more frequent and intense in Africa. By 2020, between 75 and 250 million people are estimated to be exposed to increased water stress, with only a 2C warming. Later in the century, it is projected that similar warming will lead to a reduction in yield for rain-fed agriculture of up to 50% in certain countries. This will undoubtedly have negative implications for food security on the continent and the capacity of the population to feed itself. Poor areas will

suffer the most, but in some countries, such as South Africa with its large commercial farming industry, the effects will be widespread (Ofori et al., 2021). This will likely result in increased displacement and migration in search of food and work, both within and beyond national borders. Demand for resources may even lead to conflict. High reliance on ecosystems for livelihoods makes the expected impacts of climate change on them particularly concerning. Ecosystems provide services such as food, water, and shelter and are a source of livelihood for many. Climate change will likely disrupt ecosystems, particularly in areas such as the Congo Basin, which is rich in biodiversity. This will have detrimental effects on livelihoods, and people may be forced to look for alternative means of survival. The full implications are yet to be seen. Africa needs to start adapting to the impacts of climate change that are on the horizon (Atapattu, 2020). This must be done in a way that will help develop the continent and lift people out of poverty, and the measures taken must be appropriate to the specific challenges that Africa faces.

Africa is already experiencing the impact of climate change. Because of its geographical location, the continent will suffer a wide variety of impacts in many different sectors. These impacts have broad-ranging implications for livelihoods, the economy, and the growth of the continent. If no action is taken shortly, the situation will only get worse. By the 2080s, 25% of the world's nations will likely have populations exceeding their means to feed themselves. Many African countries will be a stark example of this, and much of the development that has taken place will be reversed, particularly in rural areas (Valavanidis).

III. OVERVIEW OF HUMAN RIGHTS IN AFRICA

Africa has a history of suffering several scourges such as colonial authorities, poverty, famine, and war. This has left an indelible negative impact on the human rights situation in Africa. It is estimated that between 11 and 17 million Africans were captured and taken away as slaves. This had a major effect on the southern regions where the population decreased by 25%. The slave trade also saw the death toll of those enslaved surpass the numbers captured. The effect of this was a breaking down of the social and economic structure of African societies, leading Africa into a spiral of exploitation and underdevelopment that continues to affect it today (Hacker, 2020).

Colonialism had a similarly devastating effect on human rights in Africa as the slave trade. Although Western attitudes to Africa had been characterized by a certain racism and imperialism at least since the 18th century, the late 19th-century scramble for Africa saw the complete conquest of the continent by European powers. The colonial systems put in place were aimed solely at the exploitation of resources for the benefit of the colonial powers.

Consequently, social and economic development was primarily for the benefit of the settlers and the indigenous populations were left in a state of 'arrested development', with cultures disrupted and often destroyed, traditional rulers and structures weakened and in many cases replaced, and levels of education so low that the effects of this are still seen today. This has been evidenced by the large numbers of educated Africans who have moved to former colonial powers in search of education and work, often assuming low-paid menial tasks (Mtshweni, 2022).

IV. THE INTERCONNECTION BETWEEN CLIMATE CHANGE AND HUMAN RIGHTS

From environmental determinism to neo-Malthusianism, an interconnection between human migration and climate change has been contentious literature. Greater public attention has recently been given to the possible influences of global climate change on human societies and their migration patterns. It is estimated that more than 25 million people have been displaced by environmental changes.

However, it has been argued that separating 'environmental' migrants from economic migrants or refugees is extremely difficult, as the 'push' of environmental degradation or change can easily be considered as a human rights violation creating refugees. This argument is supported using the example of people fleeing from environmental degradation or resource scarcity, which has led to conflict in their home areas, such as the movements of people in Sudan and Darfur. Steps are currently being taken towards the creation of a separate legal status and possible protection regime for 'climate refugees', based on the argument that present-day international humanitarian and refugee law does not adequately address the needs of those who have been forcibly displaced across international borders (Hornbeck, 2023).

V. IMPACT OF CLIMATE CHANGE ON ACCESS TO CLEAN WATER

With the onset of climate change, there was concern that changes in heat and precipitation would lead to changes in the availability of water resources. Rising temperatures are expected to increase the amount of water lost to the atmosphere and to transpiration from plants, leading to a decline in stream flow and discharge into lakes. Simulations of the impact of a doubling of CO₂ on the world's water resources, using General Circulation Models (GCMs), have consistently shown that there will be regional decreases in precipitation and runoff, particularly in the subtropical regions. This may immediately affect the dry season flow of rivers that are utilized for hydroelectric power. Lakes that are already utilized for water supplies are more likely to become a flow system and lose the nutrients that support fish populations (Rameshwaran et al., 2021).

An important impact of climate change on flooding and drought patterns is also expected to affect the quality and safety of water supplies. High flows and flooding could erode land and deposit nutrients and organic matter into water bodies, raising treatment costs and affecting the quality of drinking water. For countries affected by rising water, there is the additional downside of increased contamination of water supplies by surface chemicals and animal waste.

VI. EFFECT OF CLIMATE CHANGE ON FOOD SECURITY

Subsistence agriculture and natural resource management make up nearly 80 percent of the economy in sub-Saharan Africa. As livelihood is so heavily dependent on the local environment, food insecurity in the region has skyrocketed in the past several years due to the changing climate (Asare, 2008). Hunger and malnutrition are prevalent in developing areas and only increase with the severity of climate change impacts. Crop yield in the region is expected to decrease by 2050, and some models show an increase in initial production by 5-20 percent, but then a decrease of up to 50 percent (Panda, 2007). This is due to changing temperature and precipitation levels, as well as an increase in extreme climate events such as droughts and floods. An increase of 2 degrees Celsius can mean a 40 percent decrease in the growing period for certain crops (an additional 1.5 months in the tropics), and as shortened rainy seasons become less predictable, lower rainfall will likely mean

drought and crop failure. Drought is expected to be more frequent and more intense as the planet warms, with the result that agriculture in the future will have to adapt to a more dry land style in areas where drought once was rare (WWF) (Ainsworth & Long, 2021). This renders many traditional farming techniques useless and will force a great proportion of farmers out of agriculture and into urban areas in their search for waged labor. With it, they take their deep knowledge of the ecosystem and also their reliance upon it. In the case of crop failure or difficulty in finding suitable land for planting, it is often the practice to clear forest and "shift" cultivate, a practice that will greatly accelerate deforestation in Africa as land becomes more scarce and degraded.

VII. DISPLACEMENT AND MIGRATION DUE TO CLIMATE CHANGE

Between 1975 and 2007, a total of 164 million people became refugees, with 80% of them originating from developing countries. While not all of this can be attributed to environmental change, there is a strong interdependent relationship between global changes in the environment and increased migratory movements. Involuntary forced migration has many implications for the individual concerned and has deep ramifications on the culture and society that the migrant has left. The Internally Displaced Persons (IDP) have moved because it is essential for their survival; they are termed as migrants as they have moved to a new area or country, but their status is still that of a refugee. IDPs share many of the same characteristics as refugees: they have fled their homes and lost their properties, land, and means of livelihood. The difference often lies in the fact that there is no agency responsible for IDPs and no specific international legal framework. Many IDPs are very vulnerable, and some may have little capacity to move beyond the borders of their country or region. This makes them particularly susceptible to exploitation and human rights abuses (Moyo, 2024). High levels of vulnerability are often compounded by the fact that IDPs are in a state of limbo, not knowing how long they will need to remain in the area to which they have moved. This makes it difficult for them to plan for the future and effectively hampers all attempts to rehabilitate or reconstruct their lives.

VIII. HEALTH CONSEQUENCES OF CLIMATE CHANGE

Climate change influences health both directly and indirectly. The direct impacts come from an increase in extreme events such as floods, droughts, and cyclones. These have immediate impacts on health, causing deaths, injuries, and mental health issues. They also have indirect impacts on health by affecting water and sanitation, particularly in Africa. The increasing frequency and severity of floods and droughts will contaminate water with human and animal waste or toxic chemicals, leading to an increased risk of waterborne diseases such as cholera and other infectious diseases. This will further exacerbate current health inequities and increase morbidity and mortality rates, particularly in children. In African countries, for example, it is estimated that a 1°C rise in temperature would increase the number of people at risk of malaria by 150-300 million, with around 90% of the 3 million deaths from malaria each year occurring in Africa. Temperature increases and changes in rainfall patterns in some regions may increase the spread and transmission of infectious diseases to new areas. Impacts on agriculture, forests, and fisheries will have varying direct and indirect impacts on food supply, which in turn affects health and nutrition (Lubinda, 2020).

Global climatic changes are expected to affect millions of people through increases in heatwaves, floods, storms, fires, and droughts (WHO, 2002). These extreme events can directly cause deaths and injuries through trauma or have indirect impacts on people's mental health through the stress of damage and losses to family and community. They can also increase population displacement, leading to social and economic disruption and a breakdown of community and family support networks that are protective of mental health. In particular, the impacts of climate change on people's well-being come from the indirect effects of changes to the natural and built environment. This can lead to contamination of water and food supplies through increased flooding and severe weather (El-Sayed & Kamel, 2020). Changes in ecosystems and farming can lead to "decreased agricultural productivity and food shortages" (McMichael et al., 2006). This will increase malnutrition and hunger with flow-on effects to a myriad of health outcomes. Climate change increases the risk of marginal populations to resource conflicts and "war over natural resources" (Matthews, 2002). These conflicts are often lengthy, and violent, and have major impacts on

physical and mental health. High levels of international migration and refugees to other countries will increase the risk of infectious diseases and social marginalization of displaced peoples.

IX. IMPLICATIONS FOR INDIGENOUS COMMUNITIES

Most effects of climate change have severe impacts on indigenous communities, often because these communities rely directly on their immediate environment, suffer from poverty and political marginalization, and because of the loss of ecological knowledge, land, and other resources caused by climate impacts. Africa is home to more than three thousand indigenous groups who speak more than 2,000 different languages and have distinct cultures. These communities are spread across the continent, from the Great Rift Valley in Kenya and Uganda to the Congo Basin, the Kalahari Desert, and the Sahara (Mitchell, 2023). They are incredibly diverse, and although their circumstances vary between communities, many are politically and economically marginalized. This is due to a combination of factors, often including a history of discrimination and dispossession resulting in the loss of traditional land and resources, lack of access to education, and political systems that result in indigenous peoples not being recognized or served effectively by the state.

X. CLIMATE CHANGE AND GENDER INEQUALITY

This will result in women being overburdened with work, suffering increased violence, and receiving lower pay. For example, in Namibia, it was found that during times of drought, women had to travel further to collect water and wood, which resulted in an increased possibility of sexual harassment and assault on their journeys. In South Africa, research showed that during times of food insecurity, women were forced to deplete their nutritional health to shield the rest of the family from hunger, and HIV-positive women were at a greater health risk during such times as they could not access their medication.

Women are particularly vulnerable to the impacts of climate change as their traditional roles often involve them being responsible for food security, water, and fuel supplies for their families. This is particularly the case in Africa, where studies have shown that droughts have a disproportionate effect on the female population as they

are the main users of land for subsistence agriculture. With climate change, it is expected that extreme weather events and natural disasters will become more frequent and have a greater impact on local communities. Because of that, women will have a higher rate of mortality from these events where they already have, on average, a 14 times greater chance of dying during a natural disaster than men, due to inequalities in society (Fatema et al.2021).

XI. CHALLENGES IN ADDRESSING CLIMATE CHANGE AND HUMAN RIGHTS

Where climate change and human rights are pitted against each other in a zero-sum game, measures taken to alleviate the impacts of climate change could unintentionally exacerbate human rights abuses and vice versa. This conundrum could easily arise in the context of Africa. Given the profound ways in which climate change is expected to affect the African continent - primarily through loss of agricultural productivity, decreased access to clean water, and changing patterns of disease - the potential for human rights abuses is high. Studies confirm that socioeconomic and health factors related to climate change will be exacerbated in communities with existing social inequities, and countries with a high degree of dependence on natural resources and/or a history of conflict (Schilling et al.2020). A climate-induced threat to human rights often provokes a response to strengthen the protection of the right in question, yet in doing so, the measures taken to adapt to or mitigate the impacts of climate change might inadvertently undermine other human rights. An example would be a government-sponsored land reallocation aimed at aiding small-scale subsistence farmers with deteriorating land, which successively violates the rights of indigenous peoples with a historical land title. In weighing alternative actions to address specific climate threats, it is essential to consider the possible tradeoffs between human rights and to identify strategies for minimizing conflict. This will be difficult given the range of possible futures for African climate change, and the corresponding diversity of impacts on human rights. An absence of reliable predictions and indicators for human rights vulnerabilities to specific climate change phenomena hampers an accurate assessment of the risks and might prevent issues of human rights from being integrated into national climate change policies (Sharifi et al., 2021). In this event, the most probable outcome

would be a preference for addressing the most visible and immediate threats to existing rights, rather than preparing for climatic threats in the future.

XII. INTERNATIONAL LEGAL FRAMEWORKS AND CLIMATE CHANGE

To understand the relevance of international legal frameworks to the issue of climate change and human rights in the African continent, it is important to first appreciate the nature of human rights law provision in such an international context. The international law of human rights is a complex and developing area; it distinguishes it from other international legal regimes. International human rights law is one of the main purposes of the United Nations and has a relatively strong normative system aimed at protecting and promoting human rights. The United Nations Charter, which was adopted in 1945, was the first international instrument to enshrine the promotion of human rights as a purpose of the organization. The drafting of the two covenants on human rights - the International Covenant on Civil and Political Rights and the International Covenant on Economic and Social Rights in 1966 - was the peak of the international consensus that had developed since the Second World War on the need to protect and promote human rights. These covenants create obligations on states to promote and protect universal human rights, taking into account the African countries' weaker economic position. The covenants were intended to be implemented progressively, and not overnight (Taylor, 2020). This was to lead to the Vienna Declaration, which stated that it is the duty of states, regardless of their political, economic, and cultural systems, to promote and protect all human rights and fundamental freedoms.

XIII. ROLE OF AFRICAN GOVERNMENTS IN PROTECTING HUMAN RIGHTS IN THE FACE OF CLIMATE CHANGE

Following the signing of the African Charter, African governments have obligations to protect human rights from all forms of harm, both from actions that they take and from actions of others that may impact their societies. Many African governments have signed international environmental agreements, including the Kyoto Protocol and the United Nations Framework Convention on Climate Change. By signing and ratifying such treaties, African nations have committed to work

towards reducing the impacts of climate change and to strive to find equitable solutions to climate issues. The basic notion of sustainable development, agreed upon at the Rio Summit in 1992, is that development should meet the needs of the present without compromising the ability of future generations to meet their own needs. Many African nations are vulnerable to the impacts of climate change, and it threatens to compromise both their present and their future. By ratifying the Kyoto Protocol and signing the Paris Agreement in 2016, African nations have shown a commitment to the needs of the future (Zakari et al., 2022). The Paris Agreement acknowledged that climate change is a common concern to humankind, and African nations have a right to development, yet their climate actions threaten to hinder development and increase the impacts of climate change. By working towards global climate solutions, African governments are working to protect the rights at risk from climate change impacts.

XIV. STRATEGIES FOR MITIGATING THE IMPACTS OF CLIMATE CHANGE ON HUMAN RIGHTS

There is a need to employ a human rights-based approach in strategies to mitigate and adapt to climate change. A human rights-based approach to climate change means that states and other actors must protect, respect, and fulfill human rights in climate change-related activities. The UNFCCC, the Rio Declaration, and the decisions at COPs have affirmed that while states are responsible for addressing climate change, they should do so concerning their international obligations and commitments and ensure that activities are in line with ethical principles and protect the most vulnerable (Lawson & Beckett, 2021).

At a national level, it means that in developing both National Adaptation Programmes of Action and National Mitigation Strategies, governments should ensure that these are in line with their obligations to international human rights standards. Up until now, states have largely approached climate change policies from a purely environmental or economic standpoint, with little consideration for human rights implications. Implementation of climate change policies with negative effects on human rights can contribute to further climate vulnerability, e.g. policies to clear forests or peatlands contribute to deforestation and land degradation and will displace or further marginalize forest-dependent communities."

XV. CASE STUDIES OF CLIMATE CHANGE AND HUMAN RIGHTS IN AFRICA

The Small Island Developing States (SIDS) are particularly vulnerable to the impacts of climate change. A key concept about direct and immediate harm from impacts, which also carries implications for human rights, is that of climate refugees or environmental migrants. These are people who are forced to leave their home region due to sudden or long-term changes to their local environment which adversely affect their livelihood and wellbeing. According to Bogardi, one in five Africans, or 200 million people, will be displaced by 2045 as a result of climate change-induced desertification. In the case of Ethiopia, acute environmental degradation, the depletion of natural resources, and chronic food insecurity have led to mass migration in various directions within the country and across its borders. This migration is mainly from rural to urban areas, but also neighboring countries such as Sudan; from pastoralists and farmers who are searching for water and grazing land. This was the case for Ibrahim, a farmer from Konso in southern Ethiopia, who experienced five consecutive years of crop failure leading to a total loss of income and livelihood, forcing him to seek work in Addis Ababa. He is not recognized under international law as an environmental migrant or refugee, yet his circumstances and those similar are undeniably a result of climate change and/or variability. It is predicted that there will be millions more in similar situations shortly who will need new homes and employment (Pan, 2020).

XVI. CONCLUSION AND RECOMMENDATIONS

Given the disproportionate impacts of climate change on the enjoyment of human rights in Africa, there is an urgent need for the international community to scale up its efforts in tackling climate change to protect and promote the human rights of Africans. Developed countries must take the lead in addressing climate change by reducing emissions and providing financial and technological assistance to poorer countries who are more affected by climate change, fulfilling their obligations under UNFCCC that recognize the principle of common but differentiated responsibilities. The international community should also support initiatives towards sustainable development in Africa that have the potential to mitigate the effects of climate change on human rights by breaking the link between poverty and the environment. Adaptation remains an imperative and

the central policy response to climate change impacts in Africa. Such strategies must be designed and implemented with human rights considerations in mind. Both human rights institutions and climate change policymakers must be proactive in this, identifying potential impacts of climate change on human rights, monitoring the effects of current policy, and acting to prevent harm. However, given the nature and extent of the impacts of climate change on human rights outlined in this study, adaptation can only go so far in addressing the causes of climate change. The need for mitigation is clear and strong. The energy requirements necessary for development in Africa will probably result in increased GHG emissions. Given that climate change from current emissions will impact heavily on the rights of present and future Africans, there is a moral imperative for a global agreement on climate change to reduce emissions.

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