

## Global warming impacts displacing the Maasai community in East Africa: challenges and responses

### Impactos del calentamiento global que desplazan a la comunidad Maasai en África oriental: desafíos y respuestas

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Sent: 2022/01/14

Accepted: 2022/03/07

Published: 2022/03/15

#### Abstract

Global warming is increasingly leading to displacement of people. The Maasai community in East Africa are a pastoralist community that severely face the impact of climate change which is leading to their displacement. This article examines the context of global warming in East Africa, examines the direct factors for displacement of the Maasai community and assesses the various factors that affect migration patterns of the Maasai. Issues such as exacerbated gender disparities due to climate change are outlined with an analysis of the link between both. Kenya is home to a large number of the Maasai. Thus, the article also assesses the measures implemented in Kenya to tackle global warming effects on the displacement of the Maasai. The article aims to identify what is missing in the international and regional law and norms applicable to pastoralists affected by climate change with a section providing recommendations for the East African Community.

**Keywords:** environment, global warming, climate change, pastoralists, Maasai, indigenous people, displacement, gender, migration, East Africa, IGAD.

#### Resumen

El calentamiento global está provocando cada vez más desplazamientos de personas. La comunidad Maasai de África Oriental es una comunidad de pastores que se enfrenta a los efectos del cambio climático, lo que está provocando su desplazamiento. Este artículo analiza el contexto del calentamiento global en África Oriental, examina los factores directos del

**Summary:** Introduction, Methodology, Factors, Data Analysis, and Outcomes Discussion and Conclusions.

**How to cite:** Ramesh, H. (2022). Global warming impacts displacing the Maasai community in East Africa: challenges and responses. *Revista Tecnológica - Espol*, 34(1), 154-169.  
<http://www.rte.espol.edu.ec/index.php/tecnologica/article/view/909>

desplazamiento de la comunidad Maasai y evalúa los diversos factores que afectan a los patrones de migración de los Maasai. Se esbozan cuestiones como la exacerbación de las disparidades de género debido al cambio climático, con un análisis de la relación entre ambos. En Kenia vive un gran número de Maasai. Por ello, el artículo también evalúa las medidas aplicadas en Kenia para hacer frente a los efectos del calentamiento global en el desplazamiento de los Maasai. El artículo pretende identificar lo que falta en el derecho y las normas internacionales y regionales aplicables a los pastores afectados por el cambio climático, con una sección que ofrece recomendaciones para la Comunidad de África Oriental.

**Palabras clave:** medio ambiente, calentamiento global, cambio climático, pastores, Maasai, pueblos indígenas, desplazamiento, género, migración, África Oriental, IGAD.

### Introduction

The term "environmental migrants" refers to "persons or groups of persons who, predominantly for reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move within their country or abroad." (IOM, 2007). According to Hafez Ghanem, World Bank Vice President, East Africa and Southern Region, "More than 38.5 million people could be internally displaced as a result of climate change in the Lake Victoria Basin by 2050 if widespread and urgent action is not taken (Rigaud et al., 2021). The Lake Victoria Basin includes five countries: Kenya, Tanzania, Uganda, Burundi, and Rwanda" (Rigaud et al., 2021). These countries, including South Sudan, comprise the East African Community (EAC). Livestock is frequently regarded as a contributing factor to the climate change problem.

Livestock emissions, particularly from cattle, are responsible for a substantial fraction of the greenhouse gas emissions that contribute to global warming around the planet (Ericksen & Cramer, 2021), 14.5 percent of all anthropogenic GHG (greenhouse gas) emissions according to recent data (FAO, 2021). However, Sub-Saharan Africa is responsible for only a tiny proportion of those emissions. Africa's overall contribution to greenhouse gas emissions is low. According to (Ordu, Oteh, & Lioko, 2021), in terms of global climate change, Africa carries the smallest share of blame while also suffering the most severe repercussions. Apart from South Africa, forty-eight sub-Saharan African countries are responsible for only 0.55 percent of global CO<sub>2</sub> emissions over the course of history. Nonetheless, seven of the ten most susceptible countries to climate change are located in Africa. The equatorial region of Africa is particularly hard hit by the effects of climate change (Davis et al., 2021).

Disasters and climate change-related effects frequently result in the displacement of people and endanger people's security and well-being. Globally, the extent of displacement is rising, with most of it occurring within countries' borders. While governments and communities must lead responses, the global ramifications of displacement necessitate a global response and international collaboration. The majority of internally displaced individuals live in low- and middle-income countries, which are impacted by global inequalities, an increase in extreme weather events, and unsustainable development practices.

The Maasai are one of the few remaining indigenous tribal communities in East Africa. They are semi-nomadic people who live primarily in the Great Rift Valley, stretching between Kenya and Tanzania (MCV, 2019). When it comes to semi-nomadic societies, pastoralism is an integral aspect of their culture. As a result, the people travel constantly across borders in search of pasture for their livestock. Global warming impacts pasture availability and constrains the Maasai as they have to look for other land and other sources of income. The

climate change phenomenon has led to their increased displacement away from traditional pastoral lands, routes and regions within the EAC, depriving them of livelihood and devastating their cultural integrity, thus making it imperative to address the underlying causes of displacement.

The article examines how global warming impacts contribute to the displacement of the Maasai community in East Africa. In addition, challenges faced by the Maasai such as: climate change-induced declines in productivity, constrained pastoralists movement, insecurity caused by climate change, exacerbated gender disparities, and tourism changing livelihoods of the Maasai are addressed. These major challenges faced by the Maasai go unnoticed globally due to the limited research on the topic thereby highlighting the necessity to address the challenges faced by the group. Measures implemented in Kenya are included to assess the country's efforts in tackling global warming effects on the displacement of the Maasai community. International and Regional Laws and Norms addressing displacement caused by global warming exist. However, they require further development to address what is missing which the article outlines.

Efforts to address internal displacement in a changing climate is a developmental endeavor that will require stronger political will, enhanced strategic investment, and improved coordination among stakeholders involved in disaster risk reduction, peacebuilding, sustainable development, and climate action. It is undoubtedly a problem that should be addressed in any national disaster risk reduction plan, particularly in countries where disaster displacement is a regular aspect of crisis occurrences which is critical for lowering the number of climate change affected individuals. According to the Internal Displacement Monitoring Centre (IDMC) report (2021), significant climate disasters have nearly doubled in the previous two decades, as greenhouse gas emissions continue to rise. Combined with lax risk governance and environmental destruction, continuing inequality and marginalization create new risks and exacerbate the global consequences of local crises.

Assessment of the global warming impacts on the Maasai people in East Africa uncovers other challenges the community faces, such as affected livelihoods, questioned survival of the Maasai culture and community, and specific gendered consequences for Maasai women and girls. The global warming challenge also sheds light on the level of discrimination and institutional neglect towards nomadic and sedentary communities. In addition, it highlights a need for implementing measures to mitigate consequences, prevent contributing factors such as discrimination, and support adaptation by the Maasai to support and preserve their community, culture and livelihoods.-The data on global warming effects on the Maasai and how it contributes to displacement is scarce which is a major limitation in the research on the topic.

### **Background on Global Warming and Change in East Africa's Weather Patterns**

For a long time, the Maasai have been displaced due to climate change. Maasai people were particularly vulnerable to severe drought in the 1960s and 1980s in Kenya caused as a result of natural climate variability in the East African region. Consequently, they were compelled to overwork the land that they possessed, which resulted in a reduction in vegetation as well as soil erosion. As a result, the Maasai were unable to effectively sustain their herds of livestock. Some chose to travel to Tanzania in pursuit of arable farmland, while others were compelled to sell their land (Davis et al., 2021). East Africa suffers seasonal fluctuations in precipitation and temperature that are of different intensity and length. These climate change episodes manifest themselves in a variety of ways and all these aspects are encountered by the Maasai people. Drought patterns have become more frequent and more prolonged in the region,

forcing the Maasai to relocate more regularly and frequently to new locations, often for protracted periods.

Although the Maasai have lived and grown in the East African region for generations, changing weather patterns are endangering their way of life. Warm and cold weather patterns have grown more variable, and rainfall has decreased in recent decades. Throughout East Africa, droughts have occurred on an almost routine basis. This natural disaster has caused significant damage to the region's agricultural production. Kenya's average annual temperature rose by 0.34 degrees Celsius every decade on average between 1985 and 2015 and the rainfall patterns in Kenya have been increasingly erratic and varied during the last 50 years (Davis et al., 2021). Droughts in Kenya are occurring fairly frequently today, as opposed to the prior 20-year period with glacial volumes having decreased by 66 percent over the previous century on the other hand. Mount Kenya is one such site that is witnessing substantial glacier melting, which is having an impact on the Maasai people that reside in and around the region (Davis et al., 2021). Increased droughts and unstable weather lead to lower agricultural output affecting the livelihood of the Maasai.

According to scientists, droughts are attributed to a combination of factors, including the vast clearing of forests and the emission of carbon dioxide into the atmosphere (Selby & Kagawa, 2013). Women, in particular, are confronted with the problem of fetching water for the household's consumption, which is in short supply. Occasionally, they are compelled to walk for nearly 10 kilometres to find fresh drinking water, and sometimes droughts deepen, and springs dry up, leaving some stranded (Selby & Kagawa, 2013). The lack of rain has had significant consequences for the region, with both humans and animals suffering as a result of the drought (Selby & Kagawa, 2013). The Maasai people must coexist with diverse species on these lands. And when water is scarce, there can be a spark of conflict.

### **Methodology**

The goal of this study was to investigate and address the ways in which global warming is displacing the Maasai community in East Africa, as well as to assess the challenges and responses. Due to the fact that there has been little research done on the subject, qualitative methods of research and analyses are more appropriate for this topic, since they provide high specificity of interpretations than a quantitative methodology (Creswell & Creswell, 2017). The data on greenhouse gas emissions and the number of the Maasai population in the research is derived from existing literature. The data limitation highlights a need for more research on the climate change impacts on the Maasai which ought to be addressed urgently and effectively. In addition, further research and development on the topic would be helpful for contemporary law and policy to better address the situation of the Maasai which will also be relevant also to other pastoralist and indigenous populations. To have an accurate "on ground" assessment of the global warming impacts on the Maasai, literature from Kenyan sources is used. For information on laws, treaties and protocols, literature from the IOM, ICPALD, FAO, IDMC, Minority Rights Group International among several others are used in the article. The literature provides information that can be further developed to cater for the specific context i.e., how to better address the impacts of global warming on the Maasai.

### **Factors, Data Analysis, and Outcomes Discussion**

Located in southern Kenya and northern Tanzania along the Great Rift Valley, the Maasai people of East Africa live in semi-arid regions. Approximately 160,000 square kilometres of territory is occupied by the Maasai (Maasai Association, n.d.). The land

occupation dynamics and statistics change over time due to various factors such as population growth rate, age, and gender distribution.

Although reliable data are difficult to come by because ethnic groups are not included in the population census, population estimates place the Maasai in Tanzania at 430,000 people, according to government estimates (Porokowa, 2021). The Maasai people of Kenya number roughly 900,000 people now, according to recent estimates (MasaiMara, 2021). However, it is crucial to highlight that the reason why there are no precise estimates for the population of the Maasai group is because many Maasai regard the national census as an intrusion by the government and hence miscount their numbers when they are approached by census officials (Maasai Association, n.d.). There are some individuals who want to be counted multiple times, while there are others who do not want to be numbered at all. Furthermore, as underscored by the Maasai Association, because Tanzania does not perform ethnic-based censuses, it is difficult to estimate the number of Maasai who live in Tanzania.

Maasai displacement occurs predominantly in Kenya and Tanzania as these are the countries where cross-border migration of the community occurs. The Maasai, as nomadic pastoralists have practiced transhumance for thousands of years, a seasonal migration within their own local areas that is prompted by the need to find new grasslands and water, as well as the need to avert areas where livestock diseases are prevalent (Munishi, 2013). Although nomadic pastoralists have been migrating to urban areas in large numbers since the 1990s, this is primarily due to poverty upsurge caused by the decline of the cattle economy, which has been exacerbated by unpredictable climatic variability that has resulted in droughts and flooding (Munishi, 2013). Rural-Urban migration caused by climate change is common among the Maasai in both Kenya and Tanzania.

According to (Selby & Kagawa, 2013), the Maasai, who are traditional cattle herders, have found themselves forced to leave their communities for months at a time in search of pastures and water for their animals. This typically results in vulnerable women, children, and the elderly left behind to care for themselves in the villages, which is dangerous. Maasai herders have now become a familiar sight on the outskirts of Nairobi, Kenya's capital, as they look for pastures for their animals (Selby & Kagawa, 2013). Droughts on a regular basis, along with dwindling land sizes, have rendered pastoralism in Narok and Kajiado Counties, areas highly concentrated by the Maasai population, an unsustainable venture, leading in an extraordinary increase in the number of Moran hawkers in the urban parts of the city (Mwale & Kishoyian, 2019). Others are abandoning their pastoral way of life entirely and relocating to urban areas searching for jobs. This threatens the survival of their culture and community as there is a rural to urban migration pattern. Similarly, in Tanzania, the Maasai nomadic pastoralists are migrating to urban areas because of poverty brought on by the decline of the livestock business, which is a result of a combination of environmental, financial and political circumstances.

## **Direct factors contributing to the Maasai's displacement**

### ***Climate change-induced declines in productivity***

Regarding the Maasai in southern Kenya, after relying primarily on cattle production for survival for hundreds of years, the Maasai have begun to experience climate change-induced declines in productivity (Saitabau, 2014). As a result, economic mechanisms that secure pastoralists' survival through adversity have become more compromised. Continued reliance on the same will only serve to deepen poverty, marginalisation, and dependence on aid in the coming years. In this particular case, climate change has had a significant impact on the community in a number of ways, including (i) severe drought which has killed large numbers of their livestock; (ii) malnutrition due to a lack of balanced diets; (iii) outbreaks of



diseases that are attributed to adverse weather conditions; (iv) landslides and communication breakdowns that have slowed development in the area and; (v) climate change distortion of the traditional ceremonial cycles that are held on specific days of the week (Saitabau, 2014). In such difficult circumstances, livestock may not be able to resist extended droughts, and pastoralists may lose a large number of cattle. In most cases, pastoralists will lose livestock. Reduced-stock animals (sheep and goats) are better resistant to harsher and drier climates (Saitabau, 2014). Consequently, to lessen the likelihood of losing their livestock, the Maasai tend to reduce the stock of cattle and increase the number of sheep and goats in their herd.

### ***Constrained pastoralists movement***

Mobility inside and beyond national borders and across international borders is critical to the viability of mobile pastoralism, which is especially true in the face of climate change. However, a growing body of research indicates that pastoralists' movement is being constrained for various reasons, increasing their incapacity to reduce risks and react with climatic and other shocks. Administration boundaries are being defined without considering the demands of pastoralists who move about, resulting in inter-communal conflicts, instability, and conflict (Security in Mobility, 2020). Due to the expansion of alternative livelihood systems into pastoralists' territory, pastoralists are progressively driven to the periphery.

### ***Insecurity caused by climate change***

Insecurity caused by climate change-induced is having devastating humanitarian effects for the pastoralists that are impacted across the region. Pastoralists are now the most frequent receivers of humanitarian assistance in the Horn of Africa and East Africa, according to the United Nations Development Programme (Security in Mobility, 2020). Because of a lack of support and investment in the pastoral production system, pastoralists have been pushed to the periphery of development, unable to maintain their traditional livelihoods without falling into poverty. There has neither been any fostering of an alternative environment from one in which livelihood options are, by design and default, few. While food aid can save the most vulnerable lives during acute crises, it has primarily been utilised in isolation and as a substitute for other urgently required, longer-term development efforts in developing countries (Security in Mobility, 2020). Increasing insecurity has posed a danger to pastoralists' social well-being and their ability to survive. Protecting pastoralists' lives and livelihoods is essential for long-term development in drought-prone areas. Nomads are being forced to relocate more frequently and rapidly to new locations, often for extended periods of time, as a result of the increasing frequency and duration of drought patterns. This adaptive trend has coincided with an increase in intercommunal violence, which is troubling. In contrast to some kinds of migrants, such as refugees and internally displaced persons (IDPs), pastoralist communities are the only group of people whose movement has never been publicly acknowledged and/or safeguarded by the government (Security in Mobility, 2020).

### **Further factors affecting migration of Maasai**

#### ***Exacerbated gender disparities***

Global warming affects food security, water, and other resource limitations, and even people's health, among other things. Furthermore, it exacerbates gender disparities by increasing the vulnerability of women and girls to sexual violence, hazardous behaviours, and other forms of abuse, among other things (Esho et al. 2021). Regarding the gendered consequences for Maasai women and girls, a link exists between climate change, gender inequality, and harmful practices like Female Genital Mutilation (FGM). A study conducted by (Esho et al. 2021), underscores that climate change should not be ignored when assessing the more prominent socio-ecological aspects that may increase the likelihood of FGM. In

addition (Esho et al. 2021), state that climate change is expected to lead to a rise in temperatures and less consistent rainfall, which would raise the risk of flooding and droughts in Kenya.

Women and girls are particularly vulnerable to slow-onset climatic hazards such as drought because of their significant reliance on climate-sensitive occupations, like farming, and their restricted economic independence. Whenever a change in climate has an adverse effect on the natural resources needed for making a livelihood from this job, it stops women and girls from making a living and sustaining themselves or their families, leaving them more exposed to specific Gender Based Violence (GBV) risks, as well as causing food shortage circumstances that are more likely to target women significantly (GBV AoR Helpdesk, 2021). In addition, due to their lower economic status, women are less likely than men to have the financial means necessary to adapt to climate change, such as the capacity to finance drought-resistant crops.

Aspects of women's and girls' lives that are complicated by their responsibilities as caregivers are exacerbated by slow-onset climatic catastrophes. As an example, during a drought, women and girls are typically responsible for securing food and water; this may entail traveling increasingly long distances, which not only increases security risks, but can also result in girls having to withdraw from school to cope with the extra workload (GBV AoR Helpdesk, 2021). Slow-onset climatic catastrophes such as severe drought and persistent hunger in East Africa, which are directly connected to climate change, have raised the risk of GBV for women and girls, sexual assault, and early marriages which are among the most pressing issues that need to be addressed. The (GBV AoR Helpdesk, 2021) report underscores that according to the World Health Organization and other research, the rates of Intimate Partner Violence (IPV) and child marriage are particularly likely to be aggravated by climatic crises in East African countries. Drought-induced economic hardship in Kenya has been linked to an increase in rape and harmful practises such as child marriage and female genital mutilation (FGM) (GBV AoR Helpdesk, 2021). Girls facing economic hardship because of the drought have been reported to engage in transactional sex or to be forced into early marriages by their families. In a similar vein, drought-induced hunger in Ethiopia and South Sudan resulted in an increase in the number of girls who were sold into early marriage in return for cattle to assist their families survive. If climate change and gender inequality aren't better understood, FGM and child marriage in Kajiado County, Kenya, may be perpetrated by a lack of education that makes girls more prone to harmful practices and socioeconomic disempowerment.

Women bear the brunt of climate change's influence on gender norms and FGM, which must be taken into account (Esho et al. 2021). In light of this, it is more important than ever to implement strategies that encourage girls to stay in education, stop early marriages, and abandon FGM. Family adaptation techniques, such as marrying off daughters at an early age due to decreased income and decreasing livelihoods, occurs out of desperation given the social and environmental contexts (Esho et al. 2021).

### ***Tourism changing livelihoods of the Maasai***

The effects of global warming on the Maasai community are also reflected in the hospitality sector. The Maasai Mara is a renowned tourist attraction in Kenya, when millions of wildebeest, zebra, and other herds move northward from Tanzania's Serengeti National Park into the country. The Maasai population also migrates across borders to work in the tourist business, a growing sector. This makes life simpler for them since they can provide for their family and livestock while also earning a living without having to leave their land. Climate change has had a significant influence on this business, adversely affecting their livelihoods and forcing them to migrate in search of other employment opportunities. Climate changes also

impact the community, whereby there is an increased loss of arable land. In addition, rapid tourism expansion in the area leads to further scarcity of land for the community.

Maasai pastoralists living near national parks are one of the tribes being encouraged and supported to pursue conservation as a commercial tourism venture (Ondicho, 2016). The reasons for this are threefold according to (Ondicho, 2016): one, the realisation that the survival of more than 70 per cent of the wild animals that live seasonally or permanently outside protected areas is dependent on the goodwill of landowners, and thus there is a need to involve them in tourism as a means of encouraging sustainable natural resource conservation outside protected areas; two, reducing human-wildlife conflicts by providing local communities with diverse economic alternatives that will benefit wildlife conservation; and three, encouraging sustainable land conservation outside protected areas (Ondicho, 2016).

With much more attention being paid to Maasai culture, one could claim that a new sort of tourism has emerged which (Ondicho, 2016) refers to "Maasai tourism". Today, the people are in the vanguard of so-called Maasai cultural tourist development. Maasai cultural tourism entails encounters that include the Maasai people as objects of the "tourist gaze" and specific components of their cultural heritage as tourist attractions (Ondicho, 2016). Ritual music and dance, beading and handicrafts, traditional events such as weddings and circumcision, and cultural bomas are essential parts of Maasai tourism. Travel services are encouraging foreign and domestic visitors to visit cultural bomas and learn about the Maasai people's exotic traditions.

Despite the utilisation of Maasai culture as a distinctive tourist attraction and instrument for developing and marketing Kenyan tourism, the Maasai people have not profited from tourism in any meaningful way (Ondicho, 2016). In his conclusions, deduced that traditionally, they have also been excluded from active tourist development and business involvement. However, confronted with the problem of an ever-dwindling land base that must feed a growing population, falling livestock productivity, intense government pressure to modify their way of life, and constraints faced due to displacement, the Maasai are progressively assimilating into the national economy.

### **Measures Implemented in Kenya to Tackle Global Warming Effects on the Displacement of the Maasai Community**

Kenya has implemented specific measures to tackle global warming effects on the displacement of the Maasai community. Regarding prevention of drought and promotion of sustainable development, the Kenyan government has implemented various policies. As a follow-up to the National Climate Change Response Strategy (NCCRS) published in 2010, which detailed proof of climate impacts on different economic sectors and proposed various adaptation responses, the National Climate Change Action Plan (NCCAP) published in 2013 aimed to put the 2010 NCCRS into action and set out a series of measures to facilitate low-carbon, climate-resilient development (Minority Rights Group International, 2019). The NCCAP measures support the Maasai community in tackling the effects of climate change. For example, under the adaptation strategies, the national Government under the Ministry of Tourism, County Government of Narok, non-governmental organisations (NGOs) (such as WWF and Save the Elephant), Kenya Wildlife Service (KWS), tour operators, and the local population are all active in adaptation efforts in the Maasai Mara. These adaptation techniques take the Maasai community into consideration when devising policies as they are an important component of the Maasai Mara.



Adaptation goals are established in the National Adaptation Plan (NAP) 2015–2030, which builds on this, while the Climate Change Act 2016 offers a regulatory framework for integrating climate change considerations into development planning, budgeting, and adoption across all levels of government (Minority Rights Group International, 2019). The National Drought Management Authority Act (2016), on the other hand, is responsible for providing comprehensive coordination over all aspects connected to drought management (Minority Rights Group International, 2019). However, delays and political roadblocks have slowed the implementation of these policies, highlighting that more efforts are required to tackle the challenge at hand, which is evolving rapidly.

As laid out in Kenya's National Climate Change Action Plan (2018-2022), pastoralists, hunter-gatherers, and fishing communities are crucial to any strategy. In conjunction with Article 260, Article 56 of the Kenyan Constitution recognises these groups as marginalised populations for whom efforts must be made to ensure that they participate and are represented in government and other sectors of life, among other things (Government of Kenya, 2018). Due to climate change, the livelihoods of these communities are threatened, and adaptation measures require the participation of these groups in their implementation and monitoring (Government of Kenya, 2018). Several institutions in Kenya are now working on climate change concerns. Still, the activities of these organisations toward tackling climate change have so far not been coordinated, resulting in, among other things, duplication of effort.

### **International and Regional Law and Norms applicable -and What's Missing**

As exemplified by refugee and human rights legislation, international protection frameworks serve as key reference points when it comes to determining needs and responding to them (McAdam, 2011). International human rights instruments, namely the International Covenant on Economic, Social and Cultural Rights (ICESCR), Committee on the Elimination of Racial Discrimination (CERD), Committee on the Elimination of Discrimination against Women (CEDAW), International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (ICRMW) and the Committee on the Rights of the Child (CRC) have a particular applicability to ethnic minorities, women and children. The above instruments excluding the ICRMW have been ratified by both Kenya and Tanzania and nearly all are ratified by EAC states (ILO, 2022). The ICRMW has been ratified by the EAC member states Rwanda and Uganda (United Nations, 2022).

Of particular importance is ILO C169- Indigenous and Tribal Peoples Convention, 1989 which is the only global binding instrument addressing the protection of rights of indigenous peoples which is highly relevant for the Maasai community. The ILO C169 has been widely ratified in Latin America but not Africa besides the Central African Republic which ratified the instrument in 2010 (ILO, 2022). The provisions laid out in the ILO C169 prove to be important for African countries, particularly the EAC countries where the Maasai reside, highlighting the need for adoption of the instrument.

The 1951 Refugee Convention and 1967 Protocols are widely cited but are not relevant unless political persecution and violence directed to the Maasai community have resulted in Maasai persons fleeing to other countries to claim protection as refugees from forced repatriation (*refoulement*).

Regional Economic Communities (RECs) play an essential role as they are intergovernmental economic integration processes and mechanisms among the member countries that can address evolving situations or new situations that need regulation with legal agreements such as by establishing new protocols to their community treaties. For instance, the

Economic Community of West African States (ECOWAS) has sequential protocols dealing with aspects of and extension of free movement.

Chapter 17 of the EAC Treaty refers to the free movement of persons, labour, services, right of establishment and residence (EAC, 2007). The chapter includes clauses aimed at easing border crossing, maintaining common employment policies, making training facilities available among several other clauses that could be further developed to include the Maasai community in specific since they constantly cross the borders.

Given the absence of treatment of the specific situation of transhumance in the EAC Treaty and the Protocol on the Establishment of the East African Community Common Market, the negotiation of a Protocol or similar agreement would be critical to explicitly protect transhumance free movement for the Maasai who often cross the Kenyan and Tanzanian borders, as well as other nomadic and sedentary populations whose traditional lands cross borders in EAC, such as the Digo, Karamajong, Kuria, and Luhya peoples. The Digo Kuria, and Luhya are part of the main ethno-linguistic minorities in Kenya (Makoolo & Ghai, 2005). The Karamajong are a pastoralist community found in north-east Uganda. They are one of Uganda's most prominent marginalized minorities and are geographically, economically, and politically isolated (MRG, 2018). Recent years have seen an increase in the level of suffering experienced by the Karamajong. They, like other East African livestock herders, have been directly impacted by climate change. Increased competition for scarce resources as a result of more frequent drought cycles has resulted in an increase in cattle rustling, which has been followed by an increase in violent outbursts in response (MRG, 2018). Devastating floods have also wrecked the region, rendering it vulnerable to illnesses in addition to destruction and loss of land (MRG, 2018). It is essential that a normative instrument such as a protocol take these communities into consideration to ensure their movements remain unhindered. Given that the issue is one wider than the Maasai and concerns other nomadic and sedentary populations in the EAC an EAC approach would be more feasible rather than multiple bilateral arrangements for each different peoples and borders within the same regional community.

In addition, as outlined by McAdam (2011), international protection frameworks provide a pre-existing set of norms and principles to guide and influence policymaking, as well as identifiable rights- and duty-bearers in the process. Furthermore, despite the fact that "the scope for activating human rights legislation is probably limited" in the context of climate change, its normative framework may guide policymaking, show difficulties that could otherwise be overlooked by a solely environmental or economic approach, and assist in the formulation of claims concerning access, adaptation, and balance (McAdam, 2011).

In many cases, mitigation and ex-ante adaptation efforts are inadequate to protect humans from the adverse effects of global warming. Protection and aid for people who have been adversely impacted by the consequences of climate change, including those who have been forced to leave their homes, must thus be included in adaptation efforts on a broader scale (Kälin & Schrepfer, 2012). When it comes to protecting the rights of people who have been impacted, countries, as primary duty bearers, are required to do so by international human rights law. In the context of climate change, cross-border displacement and migration movements are already taking place and are expected to rise in the future, albeit at an undetermined magnitude at this moment (Kälin & Schrepfer, 2012).

Climate change and disaster-related mobility is expected to grow more diversified and new patterns will develop; therefore, the issue arises as to whether or how current international law and protection institutions are now addressing, or may be utilised to address, these new

movement patterns. The fact that persons migrating across borders in the wake of climate-related disasters may frequently find themselves in a sort of uncertainty is a result of the legal loopholes that exist. While the lack of suitable normative frameworks for such individuals is a contributing factor, there are also institutional inadequacies in responding to their protection and aid requirements (Kälin & Schrepfer, 2012). In this scenario, inter-state collaboration between countries of origin and countries of refuge, is appropriate. In addition, regional and subregional organisations play a critical role since it is projected that climate change would affect particular regions more than others and in certain ways, and that its effects will not be limited to national borders.

The Intergovernmental Authority on Development (IGAD) is an inter-governmental mechanism for cooperation covering 20 economic, environmental, security, humanitarian, development, integration, and other concerns among eight member countries in the Horn of Africa-East Africa regional that Kenya is a part of (IGAD, 2022). A drawback identified is that IGAD does not include Tanzania which would mean that the Protocol is not helpful for Maasai transhumance. Special efforts will be required to transpose the relevant provisions of the Protocol to the Tanzanian legislation. The IGAD Protocol on Transhumance notes the importance of pastoralism in ensuring output and productivity and covers cross-border movement under Article 2 which states that “the purpose of this protocol is to exploit the full social and economic potential of the pastoral system by allowing free, safe and orderly cross-border mobility of transhumant livestock and herders in search of pasture and water as an adaptation mechanism to climate change and weather variability within the IGAD region” (ICPALD, 2020).

Kenya and Tanzania, and indeed the East African Community are presented with an opportunity to devise a framework between both countries to address the challenges faced by the Maasai due to climate change. By borrowing from the IGAD Protocol on Transhumance, the East African Community could further strengthen and implement the clauses outlined into their national frameworks and further to a joint bilateral agreement. This would ensure the protection of the Maasai community.

Several policy recommendations exist on enabling climate adaptation that East Africa can borrow lessons from. To enable adaptive capacity, (Nassef et al., 2009) propose key recommendations. Firstly, they discuss that climate foresight must be incorporated into the planning process for pastoralist development to be successful. At many stages of planning and execution, more understanding of how to acquire and apply climate forecasts is necessary. This will enable the Maasai community to better adapt to climate change patterns and ensure that pastoralist development projects are successful. Secondly, it is necessary to develop comprehensive assessments of the socio-economic costs and benefits of various adaptation techniques that involve pastoralists, and the costs and benefits should take into account livelihoods, ecosystems, and the broader economic benefits of the project (Nassef et al., 2009). A third key recommendation proposed is the necessity to assess the National Adaptation Programmes of Action (NAPAs) for Tanzania, Ethiopia, Eritrea, and Sudan from the perspective of how prioritised initiatives would contribute to the adaptive capability of pastoralists in these countries. The lessons learned from these exercises should be included into the formulation of the Kenya National Adaptation Plan as well as the implementation of the Kenyan Climate Bill in the country (Nassef et al., 2009).

To better address the challenges faced by the Maasai community in East Africa, more action research is necessary to create and share information on climate adaptation by pastoralists. In addition, there is a need to share and distribute knowledge to important regional

and national organisations that can work together with the Maasai to assist in scaling up successful efforts addressing pastoral development challenges while increasing regional collaboration. Communication is key in fostering understanding of the situation. As (Nassef et al., 2009) point out, it is vital to ensure that effective public communication programmes are carried out in East Africa that assist people in understanding and responding to the climate change problems that are experienced in different parts of the country and in different districts. Districts need to devise strategies that address region specific challenges which will ensure that challenges are addressed effectively and faster on the ground.

### Conclusions

The various challenges faced by the Maasai community with regards to global warming outline the need for concrete solutions in the East African Community. First, it is vital to investigate how countries in East Africa might provide pathways to safety and security for the Maasai community who are forced to relocate due to climate change impacts. It is essential to implement adaptation and mitigation measures to reduce and prevent displacement of the Maasai from traditional land. Adaptation goals are established in the National Adaptation Plan (NAP) 2015-2030 and the Climate Change Act 2016 provides a regulatory framework on integrating climate change considerations into development planning, budgeting, and adoption across all levels of government. The adoption of these frameworks by East African countries is vital to effectively address the challenges faced by the Maasai. However, it is important that the actions be fully implemented. Delays and political roadblocks are a setback to the implementation of these policies which necessitate the need for increased efforts in ending delays and clearing roadblocks to tackle the rapidly evolving challenge at hand.

Second, adaptation techniques and policies should take the Maasai community into consideration as their livelihoods are directly affected. Increased participation of these groups aids in effective implementation and monitoring of adaptation measures. In addition, important measures such as supporting the cultural survival and integrity for the Maasai and ways of supporting the Maasai displaced from land and community ought to be implemented to ensure protection of rights, maintenance of livelihoods and restoration of cultural identity.

Third, it is key to establish an EAC Protocol and other legal mechanisms to protect Transhumance as there are other concerned peoples in East Africa besides the Maasai. Developing an EAC instrument dealing with Transhumance is a proposed solution in tackling the challenges outlined. The IGAD Transhumance Protocol can be used as a model in this case. With immediate action, communities might reap the advantages of free movement for many years to come. The protocol can also be used as a model to devise a regional framework or a bilateral framework between Tanzania and Kenya, specifically addressing the Masai community's climate challenges whereby both countries can tackle the challenges together. This also ensures effective resource mobilisation, increased community financing, and fosters better ties between both countries.

Fourth, there is a need to strengthen existing climate change policies and migration legislation within East Africa. These legislations and policies must foster more inclusiveness for the Maasai community and device strategies specifically catered to address their needs. This is also important in ensuring that the community is preserved, and their culture does not fade away. In addition, it is also important for the countries to keep in mind that the climate challenge needs to be addressed more concretely as it is having a ripple effect on other sectors and a vast majority of people. In addition, for pastoralist growth to be effective, climate foresight must be integrated into the planning process. More understanding of how to get and utilize climate projections is required at various phases of planning and implementation. This

would help the Maasai community to better adjust to climate change trends and assure the success of pastoralist development programs.

Fifth, both governmental and non-governmental actors need to address the issue at hand concretely. For instance, the involvement of the hospitality industries together with governmental bodies and non-governmental bodies ensures the protection of the Maasai community. Also, it ensures that their challenges are addressed at all levels. This also provides an opportunity for the sharing of good practices, which can later be embedded in society and ease the lives of the community. Activities of the relevant organisations towards tackling climate change have so far not been coordinated which results in, among other things, duplication of efforts which eventually slows down progress.

Sixth, more profound knowledge of the ramifications at international, national, and regional levels is essential for the early warning to improve preparedness and help vulnerable communities build the resilience they desperately need. The recent COP26 summit has also shed light on how countries, mainly African countries, should focus on more robust regional integration and strengthen their national climate change policies.

Finally, improved statistics on the prevalence, location, assistance required, and resources available to displaced Maasai peoples and other indigenous and pastoralist peoples in East Africa are required to strengthen attempts to find long-term solutions to their displacement problems. Improved statistics can also shed light on how other intersecting characteristics, including age, disability, gender, and sexual orientation, influence their relocation experiences (IDMC, 2021). It is necessary for their communities and the governments of the countries they live in to recognise the need to accurately track displacements if accurate information is to be made accessible.

Additionally, information on the conditions of displacement is required, such as the reasons for community displacement, where they are displaced from, where they go, and when it is determined that their displacement has ended (IDMC, 2021). To address these specific problems and establish solutions, it will be necessary to collect data and proof of the consequences, as well as the voices and experiences of the affected populations, among other things.

### Acknowledgments

The author would like to express gratitude to Patrick Taran, President of Global Migration Policy Associates (GMPA), and Olga Kadysheva, GMPA Associate, who have continually guided the research and provided valuable input.

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