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The Mashariki Today

Forest Conservation for Climate Resilience in East Africa

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Introduction

Forest conservation is a critical issue in the context of climate resilience in East Africa, where the region faces some of the most pressing environmental challenges. Climate change, deforestation, and land degradation are exacerbating the vulnerability of East African communities to natural disasters, food insecurity, and resource scarcity. These ecosystems play a vital role in mitigating climate change, regulating water cycles, and supporting biodiversity. As a result, protecting and managing forest resources is not only crucial for environmental sustainability but also for fostering resilience in the face of climate change.

In East Africa, where large populations rely on agriculture and natural resources for their livelihoods, the impact of climate change is felt acutely. The sector accounts for 25%-40% of EAC Partner States (Kenya, Uganda, Tanzania, Rwanda, Burundi, and Republic of South Sudan) Gross Domestic Product (GDP) and is a leading employer for over 80% of the population in the region.[1] Increased frequency and intensity of droughts, floods, and changing rainfall patterns are altering traditional farming practices and threatening food security. The

destruction of forests, which provide essential services like carbon sequestration and soil protection, accelerates the region's exposure to these climate impacts. In response, forest conservation strategies that enhance resilience are becoming a priority for governments, civil society, and international partners. This commentary examines the role of forest conservation in enhancing climate resilience—defined as the capacity of ecosystems and communities to anticipate, adapt to, and recover from climate-related stresses—in East Africa, with a focus on Kenya, Uganda, and Tanzania. It identifies key challenges and offers policy recommendations to strengthen these efforts.

Key Issues

Deforestation and Land Degradation

Deforestation in East Africa is driven by multiple factors, including agricultural expansion, illegal logging, and urbanization.[2] The growing demand for land to cultivate crops and raise livestock has led to unsustainable practices, such as slash-and-burn agriculture, which depletes soil fertility and contributes to greenhouse gas emissions. According to the Food and Agriculture Organization (FAO), East Africa loses an estimated 1.91 million hectares of forest annually, contributing to both environmental degradation and loss of biodiversity.[3] Furthermore, land degradation, driven by deforestation and poor land management practices, reduces the region's agricultural productivity and increases vulnerability to climate shocks.

The lack of effective enforcement of existing laws and policies also exacerbates deforestation rates. In countries such as Kenya, Tanzania, and Uganda, forests


Photo credit: TrapBag

[1]East African Community. (n.d.). Agriculture and food security. Retrieved from https://www.eac.int/agriculture

2CrossBoundary. (n.d.). Sustainable forestry in East Africa. CrossBoundary. https://crossboundary.com/crossboundary-advisory-sustainable-forestry-east-africa/

[3]Food and Agriculture Organization of the United Nations. (n.d.). The state of the world's forests 2020: Forests, biodiversity and people. Food and Agriculture Organization of the United Nations. https://openknowledge.fao.org/server/api/core/bitstreams/ef993dd8-75f3-45af-83b0-4dab1a4dbb7a/content

[4]Achieng, A., & Owuor, V. (2022). The impact of charcoal production on the forest of Sub-Saharan Africa: A theoretical investigation. Research Gate. https://www.researchgate.net/publication/358189191_The_Impact_ of_Charcoal_Production_on_the_forest_of_Sub-Saharan_Africa_A_theoretical_Investigation

are often exploited for commercial purposes, such as charcoal production and timber extraction, driven in part by high energy prices and limited access to affordable alternatives such as cooking gas.[4] Although these activities contribute to local economies, they are largely unregulated and harmful to long-term forest health. If current trends continue, East Africa's forests could face irreversible damage, further heightening the region's vulnerability to climate change.

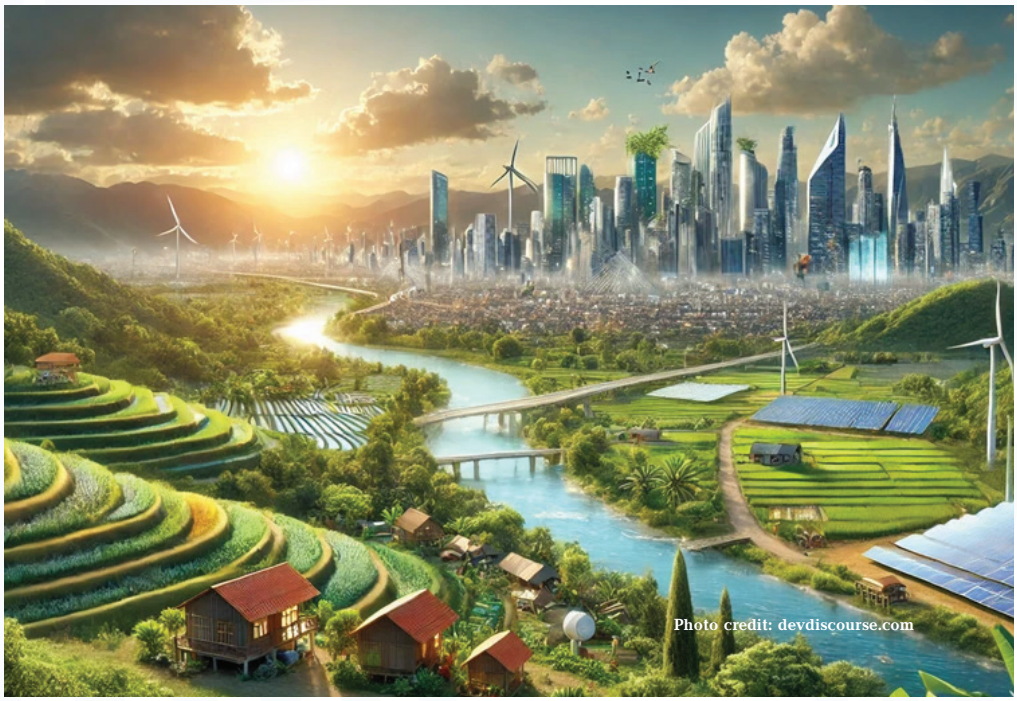


Photo credit: devdiscourse.com

Climate Change and Forests' Role in Resilience

Forests are vital to climate resilience, serving as carbon sinks that absorb CO2 from the atmosphere and mitigate the impacts of climate change. In addition, forests help regulate local weather patterns and contribute to water retention in soils, which reduces the severity of floods and droughts.[5] These functions are especially important in East Africa, where agriculture is rain-fed and highly sensitive to climate variability. Forests also provide critical habitat for wildlife, support biodiversity, and offer numerous ecosystem services, such as the purification of air and water, which are vital for human survival.

In light of the growing challenges posed by climate change, forest conservation has become a critical strategy for enhancing climate resilience. Protecting existing forests, restoring degraded ecosystems, and implementing sustainable land-use practices can help buffer the region against climate risks, such as extreme weather events and rising temperatures. Moreover, forests offer significant economic opportunities through the promotion of green jobs in sustainable forestry, eco-tourism, and agroforestry. The sustainable management of forest resources not only addresses environmental challenges but also tackles socio-economic issues, contributing to poverty reduction and community development. In this context, carbon sinks play a crucial role, as forests act as natural absorbers of carbon dioxide, which can be monetized through carbon credit programs. Countries like Kenya can benefit from international carbon credit markets by selling credits to developed nations, providing both an incentive for forest conservation and a new source of revenue. This integration of carbon credits into forest management strategies offers a dual benefit—mitigating climate change

[5]International Union for Conservation of Nature. (n.d.). Forests and climate change. International Union for Conservation of Nature. https://iucn.org/resources/issues-brief/forests-and-climate-change

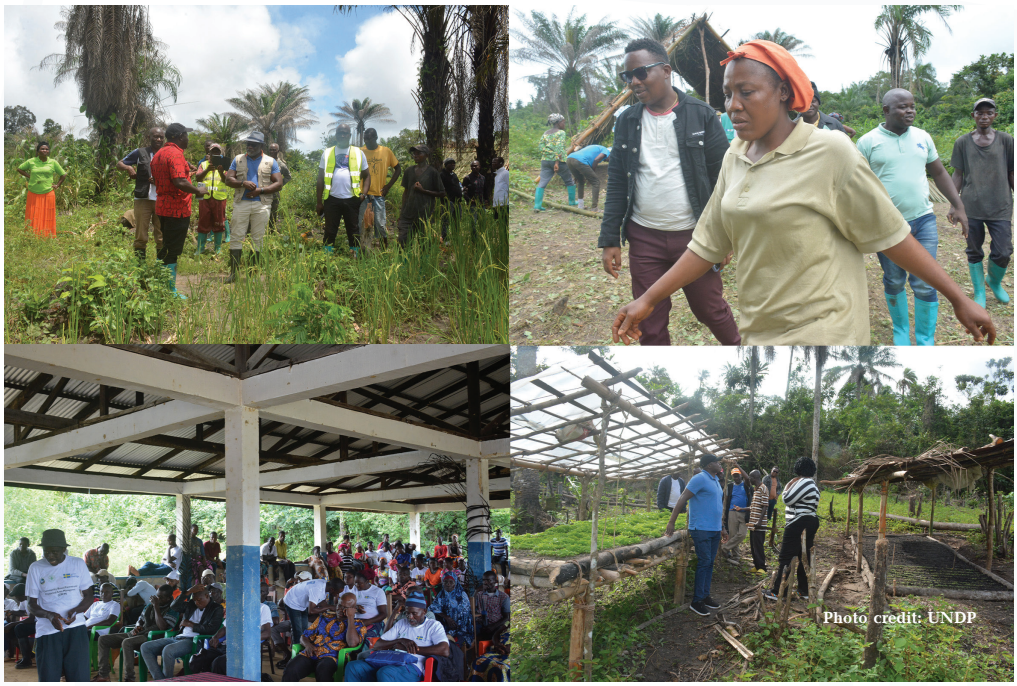
while fostering economic development.

Forest Governance and Policy Gaps

One of the key challenges in forest conservation in East Africa is the weak governance structures surrounding forest management, which significantly hinder efforts to protect and sustainably manage forest resources. Many East African countries, particularly Uganda and Kenya, face challenges in enforcing forest protection laws due to fragmented legal frameworks, underfunding, and weak enforcement mechanisms. In Kenya, the Forests Act (2005) provides a legal foundation for forest conservation, but its implementation has been compromised by insufficient resources and weak enforcement. Similarly, Uganda's National Forestry and Tree Planting Act (2003) outlines policies for forest conservation, but corruption, political instability, and overlapping jurisdiction between ministries undermine its effectiveness. In Tanzania, the Forest Act (2002) sets the groundwork for sustainable forest management, but challenges such as inadequate monitoring, lack of technical capacity, and insufficient community involvement persist. Corruption, political instability, and inadequate funding for forestry agencies further exacerbate these issues, making it difficult to effectively monitor and control illegal logging, which remains widespread in countries like Tanzania. Additionally, forest communities, often the primary custodians of these ecosystems, are frequently excluded from decision-making processes regarding forest use, despite their essential role in forest conservation. The REDD+ initiative of the UN has emerged as a pivotal mechanism for improving forest governance in East Africa by incentivizing countries to reduce deforestation and forest degradation through financial rewards. By integrating sustainable forest management practices with carbon credit systems, REDD+ enhances transparency, promotes multi-stakeholder participation, and strengthens local community involvement. This weak governance environment not only limits the effectiveness of legal frameworks but also enables illegal activities like logging, land encroachment, and poaching, further threatening the region's forests and biodiversity.

To enhance forest conservation efforts, it is crucial to strengthen forest governance and ensure that policies are implemented effectively. This includes improving transparency, accountability, and stakeholder engagement in forest management. The role of local communities in forest conservation should be

recognized and supported through community-based natural resource management (CBNRM) programs. By empowering local people to manage their forests, East African countries can promote sustainable land-use practices and build long-term resilience against climate change.



Key Recommendations

1. Strengthening Legal and Institutional Frameworks

Governments in East Africa should prioritize strengthening legal and institutional frameworks to combat deforestation and promote sustainable forest management. Effective forest governance requires clear policies, laws, and regulations, as well as robust enforcement mechanisms. In this context, regional cooperation through initiatives like the East African Community (EAC) and the EAC's Protocol on Environment and Natural Resources Management can play a vital role in harmonizing forest management policies across member states. This cooperation is essential for addressing transboundary forest management issues, such as cross-border illegal logging and the protection of shared forest ecosystems. Additionally, regional mechanisms such as the East African Forests Partnership (EAFP) can facilitate collaboration among countries to improve forest governance practices. Governments should allocate adequate resources to forestry agencies, such as the Ministry of Environment and Natural Resources or Forestry Departments, to ensure effective monitoring, enforcement, and the implementation of regulations like the EAC Forest Strategy, which provides a regional framework for sustainable forest management.

2. Promoting Community-Based Forest Management

Community-based natural resource management (CBNRM) has proven to be an effective strategy for forest conservation in East Africa. By involving local communities in the decision-making process, governments ensure that conservation efforts align with the needs and priorities of those most affected by climate change. CBNRM models, such as the Community Forest Associations (CFAs) in Kenya and Uganda, empower communities to manage their forest resources sustainably. These initiatives not only reduce deforestation rates but also contribute to poverty alleviation and social cohesion. In Tanzania, similar initiatives, such as Village Land Forest Reserves (VLFRs), enable local communities to take responsibility for their forests, balancing conservation with sustainable use. These associations work by

engaging local communities in the creation and enforcement of management plans, promoting sustainable harvesting practices, and providing alternative livelihoods to reduce pressure on forest resources. Through monitoring, capacity building, and education on sustainable practices, these models help ensure that forests continue to provide ecological, economic, and social benefits for future generations.

Governments should expand CBNRM programs and ensure that local communities receive the necessary technical and financial support to manage forests effectively. Expanding these programs is crucial not only for forest conservation but also for improving community resilience to climate change and promoting sustainable livelihoods. By equipping communities with skills in sustainable land-use practices, forest restoration techniques, and income-generating activities, governments can reduce dependence on destructive practices like illegal logging and charcoal production. Ministries such as the Ministry of Environment, Forestry, and Tourism, along with local departments of agriculture and rural development, should collaborate to provide targeted training and resources. This approach not only strengthens local governance and stewardship over forest resources but also fosters sustainable economic opportunities. Furthermore, integrating these programs into national development plans can align conservation efforts with broader goals of poverty reduction, food security, and sustainable economic growth.

Photo credit: Climate Adaptation Platform

3. Addressing Climate Change through Forest Restoration

Forest restoration is a critical component of climate change mitigation and adaptation. The United Nations has launched the "Bonn Challenge," a global initiative aimed at restoring 350 million hectares of degraded land by 2030. East Africa has the potential to contribute significantly to this global effort by restoring its degraded forests and landscapes. Forest restoration not only sequesters carbon but also improves biodiversity, enhances water retention, and reduces vulnerability to climate hazards.

Governments in East Africa should prioritize forest restoration within their national climate adaptation strategies, tailoring approaches based on specific country contexts. For example, Kenya's National Climate Change Action Plan emphasizes ecosystem restoration, including forests, as a key strategy for enhancing resilience to climate impacts. Similarly, Uganda's National

Adaptation Programme of Action (NAPA) includes forest restoration as a priority for reducing vulnerability to climate change, while Tanzania has integrated forest conservation into its broader climate adaptation framework through its Nationally Determined Contributions (NDCs). By examining these country-specific strategies, we can identify commonalities, such as the focus on restoring degraded lands, promoting agroforestry, and engaging local communities in conservation efforts. Large-scale restoration initiatives, such as the Great Green Wall in the Sahel, can serve as a valuable model for East Africa. The project's emphasis on community involvement, ecosystem restoration, and partnerships between governments, NGOs, and the private sector offers a relevant blueprint for East African nations looking to enhance forest restoration as part of their climate resilience plans.

4. Leveraging International Support and Funding

The focus on international actors such as the Green Climate Fund (GCF), the Global Environment Facility (GEF), the World Bank, the African Development Bank (AfDB), and conservation NGOs is based on their critical roles in forest conservation and climate resilience. These actors are key sources of financial support and technical expertise for forest conservation efforts, particularly in regions like East Africa, where substantial investment is required. The GCF and GEF provide targeted funding for climate resilience projects, while institutions like the World Bank and AfDB offer not only financial resources but also essential knowledge and capacity-building support. Conservation NGOs are important partners in implementing on-the-ground conservation efforts and ensuring sustainable practices. By isolating these actors, the aim is to highlight the distinct contributions they make toward advancing forest conservation in East Africa, ensuring a comprehensive and multi-faceted approach to addressing the region's climate challenges.

In addition, private sector involvement should be actively encouraged through mechanisms like Payment for Ecosystem Services (PES), where businesses and individuals can invest in forest conservation in exchange for tangible environmental benefits. A notable example of this is the Friends of Karura model in Kenya, where private companies partner with local communities and the government to conserve the Karura Forest, while benefiting from improved ecosystem services such as water catchment preservation and carbon sequestration. By leveraging international support and such private sector

investment models, East African countries can accelerate forest conservation efforts, enhance climate resilience, and create sustainable environmental solutions.

Conclusion

Forest conservation plays a pivotal role in enhancing climate resilience in East Africa. The region's forests provide essential ecosystem services that mitigate the impacts of climate change, support biodiversity, and improve livelihoods. However, deforestation, weak governance, and climate change pose significant challenges to the sustainable management of forest resources.

To build resilience against climate change, East African countries must prioritize forest conservation through strengthened governance, and community-based management. By adopting the policy recommendations outlined in this commentary, East Africa can protect its forests, mitigate the impacts of climate change, and foster sustainable development. Forest conservation is not just an environmental necessity—it is an economic opportunity and a pathway to a more resilient future for the region.

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