
AN ANALYSIS OF COMMUNITY-BASED APPROACHES TO CLIMATE CHANGE ADAPTATION IN KENYA – THE PARADOX OF PROGRESSIVE POLICY FRAMEWORKS AND A PERSISTENT LOCAL VULNERABILITY

***Osunga John Onyango and Dr. Yasin Kuso Ghabon**

Kenya.

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***Corresponding Author: Osunga John Onyango**

Kenya.

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ABSTRACT

The aim of this paper is to review the community-based strategies for adaptation to climate change in Kenya and to discuss the apparent contradiction between the relatively sophisticated climate change policy framework and continued community vulnerability to climate change threats. The study reviews the qualitative literature from the academic field, policy instruments, legal frameworks, and selected case materials to examine the conceptualisation of community-based resilience and adaptation, the relationship between community-based resilience and adaptation and national and county climate governance, and the persistent implementation challenges and the reasons behind this. The analysis concludes that community-based approaches are critical because they rely on local knowledge, participatory decision making and specific to the context resilience strategies. Factors that limit their effectiveness include weak coordination between levels of government, uneven county capacity, weak and delayed financing, limited institutional accountability, and continued top-down planning. The policy and practice landscape in Kenya indicates that the increasing recognition of the importance of adaptation, inclusion and devolved action in policy and practice does not always equate with effective local action. The paper argues that the key problem is not the lack of climate policy, but the mismatch between policy ambition and institutional, financial and governance conditions that are needed to enable community-led adaptation. It calls for deeper national-co county-community linkages to turn climate policy to real resilience results.

OBJECTIVE: To explore the interaction between community-based approaches to climate change adaptation in Kenya and the national and county level climate change policies, as well as why there is a significant degree of local climate vulnerability despite the existence of relatively advanced climate change policies.

KEYWORDS: Climate change adaptation; Community-Based Adaptation; Climate policy implementation, Community Based Resilience Analysis.

LITERATURE REVIEW

Community based resilience approaches as a concept and its application in various disciplines

Resilience: Resilience is broadly understood as the capacity of a system, individual, community, or institution to withstand disruption, adapt to changing conditions, recover from adversity, and continue functioning or develop positively despite stress or shocks (Holling, 1973; Masten, 2001; Walker et al., 2004). Across disciplines, resilience is not limited to recovery alone; it often includes resistance, adaptation, transformation, and long-term sustainability.

In psychology, resilience refers to the ability of individuals to maintain or regain mental health despite experiencing adversity, trauma, or stress. Masten (2001) describes resilience as “ordinary magic,” emphasizing that it arises from common human adaptive systems rather than extraordinary traits. Luthar, Cicchetti, and Becker (2000) further frame resilience as a dynamic process involving positive adaptation within the context of significant adversity.

In ecology, resilience is defined as the capacity of an ecosystem to absorb disturbance and reorganize while undergoing change so as to retain essentially the same functions, structure, identity, and feedback (Holling, 1973). This perspective highlights the importance of persistence, regeneration, and adaptive cycles in natural systems.

In engineering, resilience typically refers to the ability of structures, materials, or infrastructure systems to resist shocks, recover quickly, and return to desired performance levels after disruption. Engineering resilience often emphasizes robustness, redundancy, reliability, and rapid recovery (Bruneau et al., 2003).

In disaster risk management and urban studies, resilience involves the capacity of communities, cities, and institutions to prepare for, respond to, recover from, and adapt to hazards such as floods, earthquakes, pandemics, or economic crises. According to the

National Research Council (2012), disaster resilience includes planning, absorptive capacity, recovery, and adaptive learning.

In social sciences and community development, resilience is seen as the ability of social groups and institutions to cope with external pressures, maintain cohesion, and transform in response to change. Adger (2000) emphasizes social resilience as the capacity of communities to absorb shocks while retaining essential structures and functions.

In organizational and business studies, resilience refers to an organization's ability to anticipate, prepare for, respond to, and adapt to incremental change and sudden disruptions in order to survive and prosper (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). This includes leadership, flexibility, innovation, risk awareness, and learning capability.

In health systems and public health, resilience describes the capacity of health institutions and systems to prepare for crises, manage them effectively, maintain core services, and reorganize based on lessons learned. Kruk et al. (2015) define resilient health systems as those able to absorb shocks, adapt, and transform when required.

Overall, resilience is a multidimensional and interdisciplinary concept. Its key facets commonly include resistance to disruption, recovery after disturbance, adaptation to changing circumstances, and transformation when existing conditions become unsustainable. Although the emphasis differs across disciplines, the central idea remains consistent: resilience is about sustaining functionality and enabling positive adjustment in the face of challenge. This paper fully agrees with the definitions and application of resilience to the mentioned disciplines.

Community-based resilience : Resilience, as a general concept, is the ability of a system (whether an individual, a community, or an institution) to survive, adapt, recover from, and thrive in the face of stressors and stressors-related changes (Holling, 1973; Masten, 2001; Walker et al., 2004). In all disciplines, being resilient extends beyond recovery; it can be resistance, adaptation, transformation and sustainability. Resilience in psychology is a person's capacity to overcome adverse, stressful, or traumatic experiences without developing mental health issues or to recover from them and return to a state of mental well-being. Masten (2001) refers to resilience as "ordinary magic", meaning that it is not an extraordinary quality, but a quality of ordinary human adaptive systems. Luthar, Cicchetti, and Becker (2000) also describe resilience as a "dynamic process of positive adaptation in the face of significant stressors. In ecology, resilience means that an ecosystem's ability to absorb disturbances and reorganise in ways that maintain its essential function, structure, identity, and feedback as it changes (Holling, 1973). The lesson is that in nature, persistence, regeneration, adaptive cycles are important. Resilience in engineering is generally defined as

the capacity of structures, materials or infrastructure systems to withstand shocks, to recover rapidly and to restore the desired level of performance after disruption. The principles of engineering resilience tend to focus on robustness, redundancy, reliability, and quick recovery (Bruneau et al., 2003). In the context of DRM and urban studies, resilience is defined as the ability of communities, cities and institutions to prepare for, adapt to, respond and recover from floods, earthquakes, pandemics and economic shocks. The National Research Council (2012) defines disaster resilience as planning, absorptive capacity, recovery and adaptive learning. Social sciences and community development treat resilience as a capacity of social groups and institutions to adapt to external pressures and remain together and change. Adger (2000) stresses social resilience as the ability of communities to absorb shocks and to maintain significant structures and functions. In organizational and business studies, resilience is the capacity of an organization to prepare and respond to incremental change and unexpected disruptions and adapt to survive and thrive (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). This comprises leadership, flexibility, innovation, readiness to take risks, learning ability. In health systems and public health, resilience refers to the ability of health systems and institutions to anticipate crisis, respond to it, ensure the continuity of essential services and restructure in response to learning. Kruk et al. (2015) define resilient health systems as being capable of absorbing shocks, adapting and transforming when necessary. Resilience is a multi-faceted and multi-disciplinary concept in general. Its key facets commonly include resistance to disruption, recovery after disturbance, adaptation to changing circumstances, and transformation when existing conditions become unsustainable. Whilst there can be variations in emphasis between disciplines, the underlying concept is always the same: resilience is the ability to continue functioning and adapt positively in the presence of challenge. Community-based resilience Community-based resilience is defined as the ability of a community to anticipate, prepare for, respond to, adapt to, and recover from a shock and/or stress by utilizing local knowledge, social networks, institutions and material resources. Rather than being recovery following a crisis, resilience is focused on continued collective capacity, participation and learning before, during and after a crisis (Norris et al., 2008; Patel et al., 2017). Resilience, in this sense, is a process linking community resources and adaptive capacities to wellbeing, continuity and recovery. The idea is used in various fields. It is applied to enhance the preparedness, response and recovery capacity against floods, droughts, earthquakes and storms in the context of disaster risk reduction and emergency management (Norris et al., 2008). In the field of public health, it assists communities to sustain physical, mental, behavioural and social wellbeing during times of

crisis or public health emergency. It assists communities in adapting to long-term climate and environmental stresses and extremes via local planning and adaptation as a component of climate change adaptation. In the context of social work and community development, the concept is also applied to principles such as participation, trust, inclusion and community competence; and in the context of urban planning and infrastructure studies, principles of resilience are related to the reliability of buildings, services and interconnected systems that allow communities to function under stress (NIST, n.d.; U.S. Climate Resilience Toolkit, n.d.). A broad spectrum of threats are mitigated by Community based resilience. They include natural disasters like floods, hurricanes, droughts, heat waves, wildfires, and earthquakes, as well as man-made/hazardous events, such as infrastructure failures, contamination events, and industrial accidents, and public health events, such as epidemics and other emergencies that affect daily life and essential services (EPA, 2026; ASPR, n.d.). It also helps to mitigate the impact of chronic social stresses like inequality, poor governance, weak health systems and poor access to information or resources that can exacerbate the impacts of disaster. In the literature, factors that are linked to resilience are social capital, communication, leadership, preparedness, health, local knowledge, and economic resources (Norris et al., 2008; Patel et al., 2017). In general, CBR can be seen as a multi-disciplinary, locally based strategy for reducing the vulnerability and enhancing the capacity to resist and adapt to disruption in a community.

Climate change Trends in Africa: Although Africa does not emit significantly large amounts of GHGs, it is one of the most vulnerable regions to climate change, and the IPCC's evidence reveals that human-induced climate change has already led to widespread losses and damages across ecosystems and socio-economic systems including due to rising temperatures, increased heatwaves, droughts and floods; decreasing agricultural production; increasing water stress; loss of biodiversity; and worsening health, livelihood and economic development risks. In GHG emissions in Africa, South Africa is ranked the highest with 1.07%, Egypt 0.73%, Nigeria 0.66%, and Algeria 0.47%. Kenya emits 0.17%- 0.19% (Trisos et al., 2022). Existing structural vulnerabilities including high poverty, limited infrastructure, and a high reliance on climate-sensitive sectors in much of the continent affect adaptation capacity, with rain-fed agriculture, pastoral systems, water resources, coastal areas, and settlements expected to be most vulnerable to future climate change impacts, which may cross adaptation thresholds in some contexts, and which highlight the need for climate-resilient development pathways that incorporate adaptation, mitigation, sustainable

development, improved institutions, inclusive governance, and increased international finance support for climate change (Niang et al., 2014; IPCC, 2022).

Disasters directly impact the livelihoods of an estimated 3-4 million Kenyans each year, and jeopardize national development. Hydro-meteorological disasters (floods and droughts) account for around 70% of all disasters in Kenya. The total economic losses from flood/drought occur in the region of 2.0% - 2.4% of Gross Domestic Product (GDP) annually, valued at about US\$500 million annually. According to the World Bank, the 2016/17 drought left approximately 1.25 million people acutely food insecure by January 2017 with the number rising to 2.55 million people in need of immediate humanitarian assistance by January 2018.

Climate Adaptation: Climate change adaptation, as per the definition of the IPCC, 2019, is the process of adapting to actual or anticipated climate and its impacts in a manner that lowers adverse effects, cope with the risks of climate change, and, if feasible, harnesses opportunities. Adaptation is an essential part of climate response which aims to build the resilience of human and natural systems, minimize vulnerability, ensure people, livelihoods, infrastructure and ecosystems are protected, and integrate climate risk into sectoral and cross-sectoral planning, policy, finance and decision-making processes at all scales. It is well recognised that adaptation is context-specific, risk-based, multi-level and requires a wide range of adaptations, such as institutional change, behavioural change, Natural Based Solutions (NBS) and technical solutions, to build adaptive capacity and enable long-term climate-resilient development (IPCC, 2019).

Community Based resilience and adaptation in relation to climate change

Community-based resilience and adaptation to climate change is generally seen as a participatory, bottom-up, and context-specific process, that involves local communities in the identification of climate risk, the prioritization of issues, and the design of adaptation actions that are reflective both of lived realities and local knowledge systems, as well as of socio-ecological conditions. This strategy focuses on vulnerable communities' needs to be heard and their ability to co-produce socially legitimate and context-responsive strategies for reducing exposure and vulnerability to climate hazards, rather than strong top-down and technocratic interventions (Selje et al., 2024; Paterson & Charles, 2019). From this perspective community-based adaptation is both a practical approach to the inequitable and locally shaped impacts of climate change and a tool for making associations between indigenous and local knowledge and climate knowledge, for enhancing local agency, and for

incorporating adaptation into wider processes of sustainable and climate resilient development (Johansson et al., 2018; Selje et al., 2024). Its success requires that it engages all stakeholders, fosters social capital, is well grounded in effective local institutions, is based on a multi-faceted approach to livelihoods, includes NBS solutions, and links to national and global governance, policy and financing systems (Selje et al., 2024; Eriksen & Simon, 2025). Community-based adaptation is now recognized, however, not only as a coping mechanism in the short-term, but also as a way to foster equitable, long-term, and scalable climate resilience that links local empowerment with national climate adaptation planning, climate governance, and long-term development agendas (Paterson & Charles, 2019; Johansson et al., 2018; Selje et al., 2024).

Global Climate Policy: International climate policy has developed a multi-layered structure of conventions, protocols and other development and disaster risk frameworks, all aimed at steering collective action on climate change. The international climate policy has been layered onto a multilevel architecture of international conventions, protocols and other development and disaster risk frameworks, all on the task of steering collective climate action. The United Nations Framework Convention on Climate Change (UNFCCC, 1992) is the institutional and normative framework for international cooperation on mitigation, adaptation, financing, and reporting, while the Kyoto Protocol (1997) is an earlier stage of climate governance, using a more top-down approach, that establishes binding emission reduction obligations for developed countries. The Paris Agreement (2015) expanded this framework with a more universal and iterative architecture that includes all countries in a common framework of nationally determined contributions, long-term temperature limits, resilience-building and adaptation planning. In addition to these treaties, the Sendai Framework for Disaster Risk reduction (2015) and the 2030 Agenda for Sustainable Development (2015) further strengthen climate policy by bringing resilience, preparedness and climate action to broader agendas for risk-informed and development-oriented governance. The success of this global policy system relies more on institutions and mechanisms that will help implement, hold, make it equitable and make it cross-sectoral resilient. The Enhanced Transparency Framework (2015) and the Global Stocktake (2015) under the Paris Agreement are intended to boost MRS by providing visibility of the progress made by countries in their mitigation, adaptation and support efforts. Meanwhile, the Warsaw International Mechanism for Loss and Damage (2013) and the Green Climate Fund (2010) are addressing the long-standing demands for justice and support by responding to climate related losses and mobilising finance for vulnerable developing countries. The

complementary agreements further expand the scope of global climate governance: the Kigali Amendment (2016) is a contribution to near-term mitigation by phasing down hydrofluorocarbons; the UN Convention to Combat Desertification (1994) is an agreement on adaptation through action on land degradation and drought; and the Kunming Montreal Global Biodiversity Framework (2022) is an agreement on the role of ecosystem integrity and biodiversity protection in sustaining long-term climate resilience and adaptation.

Regional climate policies in Africa, implementation and CBA: Adaptation, resilience and participatory governance have been increasingly incorporated into African regional climate policy frameworks, notably those of the African Union, ECOWAS, SADC, and the East African Community; and have resulted in mixed, but important, outcomes for CBA – with countries such as Kenya, Ghana, Ethiopia, Senegal, Malawi, and South Africa showing greater progress when regional policy priorities have been translated into locally-led action, including through the use of climate-smart agriculture, ecosystem-based adaptation, participatory planning and indigenous and local knowledge; while countries such as Mozambique, Zambia and parts of the Sahel continue to see weaker outcomes where finance, coordination, and decision-making remain centralised and lacking in responsiveness to local policy priorities (African Union, 2022; East African Community, 2011, 2023; Economic Community of West African States, 2022; Southern African Development Community, 2021; Intergovernmental Panel on Climate Change, 2022; Shackleton et al., 2025; United Nations Environment Programme, 2024). Evidence shows that regional policies have achieved greatest success where they are enabling national and local institutions to support inclusive, place-based adaptation, rather than where adaptation finance gaps exist or capacity gaps within the national system are reducing the ability of local institutions to deliver adaptation policies effectively, and indigenous knowledge systems to remain marginal to policy delivery (Selje et al., 2024; United Nations Environment Programme, 2024).

Implementation of global climate policies: Jo-Ellen, Joseph et al (2012) implemented, countries have different historic emission responsibilities, economic strengths and development agenda which makes it difficult to agree on equal burden sharing for the implementation of global climate policies. The use of fossil fuels, insufficient climate finance, poor implementation of international agreements and a lack of political action for long-term environmental future have all further delayed progress. Further, technology and infrastructure deficiencies, energy security worries, public opposition to policies that are

perceived as being expensive or unfair, and a lack of government and institutional cooperation have hindered the implementation of consistent and effective action from global climate change goals.

Understanding and connecting to Climate Policy Context and Conceptual Foundations

in Kenya. The climate change policy context in Kenya is supported by a framework of international commitment and domestic climate governance as embedded in the constitution, laws, and planning. Linking climate governance to sustainable development, public accountability and intergenerational justice, the Constitution of Kenya (2010) establishes the normative ground for climate action in the form of environmental rights, state obligations and enforceability of environmental rights. This foundation has been realised through a series of national climate instruments, such as the National Climate Change Framework Policy (2016) that provided the overall direction for low-carbon, climate-resilient development; the National Climate Change Action Plan (2018) for 2018-2022 and its successor, the National Climate Change Action Plan (NCCAP) III (2023) for 2023-2027; which translated policy goals into implementation priorities; and the Updated Nationally Determined Contribution (2020) for 2020-2030, which reaffirmed adaptation and resilience as key components of the country's climate pathway. This policy architecture is expanded through county planning documents, at the devolved level, that include the Annual Development Plan (ADP) under the Public Finance Management Act (2012) in budgeting and local development, which allows for climate priorities to be incorporated into the local planning and service delivery process.

As a concept, the policy framework on climate change in Kenya sees climate change adaptation as a process that is participative, mainstreamed and multi-levelled, with the protection of resilience occurring through coordination between the national policy, county implementation and community action. Under the Climate Change Act (2016), the National Climate Change Framework Policy (2016), the National Climate Change Adaptation Plan (2016) and the National Climate Change Action Plans (2018; 2023), adaptation is not just about the technical response to climate hazards, but about a development-focused process that helps mitigate vulnerability, build the adaptive capacity of exposed populations and protect livelihoods, particularly in climate-sensitive and marginalised areas. The framework also leaves room for community-based adaptation by prioritising the involvement of the public, stakeholder engagement, local planning and the inclusion of indigenous and experiential local knowledge in resilience-building. By this, Kenya's policy space facilitates transition from reactive climate action to more anticipatory, and community-oriented climate

governance and acknowledges that successful climate resilience requires coordinated institutional action, participatory planning and continued support at both the national and devolved levels.

Climate Policy implementation in Kenya

Despite Kenya's more advanced climate policy framework, implementation continues to be beset by governance and intergovernmental coordination challenges, financing delays and insufficient funds, and uneven capacity of counties (Mbugua, 2025; World Bank, 2023; USAID, 2023). Such weaknesses have been exposed in various significant scandals and controversies around climate action, such as the contracts' inflation at the state-owned Geothermal Development Company, which led to a corruption scandal, with senior officials being charged for allegedly inflating contracts, and risks of corruption in renewable energy governance (Transparency International, 2024); devolved climate finance issues such as contracts' inflation at the state-owned Geothermal Development Company, missing oversight committees, and failure to obtain environmental approvals for the Financing Locally Lead Climate Action (FLLoCA) programme, which occurred in Homa Bay County, and were highlighted in the recent allegations (Nation, 2026). There have been contentious issues around the expansion of carbon markets in Kenya, such as community engagement and benefits sharing, which led to increased national regulation under the Climate Change (Carbon Markets) Regulations, 2024 and a unified carbon registry system (Kenya Law, 2024; Nation, 2026). To tackle this, the government has conducted investigations, made arrests, implemented enhanced climate finance integrity measures, drafted new carbon market regulations and introduced tougher approval and reporting processes, but the continued cases indicate that there is still more work to be done beyond just designing policies, to implement credible enforcement, transparent resource management and accountability measures for carbon markets in national and county institutions (Transparency International, 2024; Kenya Law, 2024; Mbugua, 2025).

The economic effects of climate change.

According to Jo-Ellen Parry, Daniella Echeverria, Julie Dekens, and Joseph Maitima (2012), climate change is already costing Kenya a considerable amount of money: more droughts and floods, and an increase in heat stress, are already disrupting agriculture, livestock, energy, transport and public health systems, all of which are reducing productivity, driving up disaster-response and social-protection spending and limiting long-term growth. Likewise,

the National Council for Population and Development (2024) indicates that the increasing losses pose a development and financial challenge to household incomes, food security, infrastructure, and Vision 2030, SDGs and the Bottom-Up Economic Transformative Agenda (BETA), highlighting the importance of climate change. These climate shocks and stresses are estimated to have cost between 3% to 5% of GDP on average during the last decade and could cost approximately 6.5% to 8.5% of GDP by 2050 without increased mitigation and adaptation, which would negatively impact household incomes, food security, investment, and future growth.

METHODOLOGY

The paper relied on a thorough desk-based review of various documents and case studies conducted in recent times in Kenya on CoBRA in relation to climate change. Qualitative analysis also was employed where critical review of relevant academic literature was done, policy documents, legal and institutional frameworks. Secondary data from journals, government climate policy instruments, international reports were analysed. This approach allowed the study to synthesise conceptual, policy and empirical insights to assess how CBA is positioned with the broader Kenya's climate governance system.

Community Based Resilience Analysis Assessments Case Study and Results

The Community Based Resilience Analysis (CBRA) assessments in 2012 in Marsabit, Turkana and Kajiado counties in Kenya, and the Karamoja sub region in Uganda, were preceded by a significant amount of preparatory work, undertaken by the UNDP Drylands Development Centre in partnership with national and local stakeholders. The works carried out involved contextual risk profiling of the pastoral and agro pastoral systems in the drought affected areas, adaptation of CoBRA methodology to the local socio ecological realities, mapping of stakeholders and training of facilitators for participatory focus group discussion at community level. The following works were carried out: Contextual risk profiling of pastoral and agro pastoral systems in the drought affected areas, adaptation of the CoBRA methodology to the local socio ecological realities, and mapping of stakeholders and training of facilitators for participatory focus group discussion at community level. The following preliminary steps ensured consistency of methods, locally defined resilience indicators, and community ownership of resilience concepts before implementation in the field (Venton et al., 2014; Fitzgibbon et al., 2013). The Community Based Resilience Analysis case study compares, from a community perspective, the levels of resilience in contexts of drought and

shock exposure. Using participatory methods, it not only captured local definitions of resilience, but it also went on and identified priority characteristics that enabled households and communities to absorb, adapt to, and recover from climatic and socio-economic shocks. Findings in Marsabit County highlighted livestock mobility, access to water and traditional social support as critical components in improving coping mechanisms during periods of recurrent drought, and insecurity and market isolation as vulnerability factors. The case studies in Turkana County highlighted chronic exposure to drought, conflict and food insecurity, and resilience was linked with diversified livelihoods, access to basic services and external humanitarian and development interventions. In Kajiado County, comparatively high levels of resilience were associated with better market integration, education, and mixed livelihoods, while land fragmentation and emerging climate variability were regarded as threats to pastoral systems (Fitzgibbon et al., 2014; Venton et al., 2014).

FINDINGS

There was a common theme in all four CoBRA sites – in Karamoja, Uganda, resilience is multidimensional and context-specific, it is built from interactions between livelihood assets, governance, social capital and environmental conditions. Food security, natural resource access and peace building processes were important approaches to community resilience in Karamoja, while longstanding marginalisation and poor service provision were also limiting community adaptive capacity. CoBRA assessments are generally identifying predictable access to water, food, a variety of income opportunities, effective local governance and participatory decision-making as key drivers of community resilience. The studies also demonstrate that development and Disaster Risk Reduction (DRR) interventions are most effective when they tap into the characteristics of resilience that are identified at the community level, further highlighting the need for community-led planning in relation to DRR oriented policy and programming processes (Way, 2014; UNDP & UNDRR, 2019).

Paradox in Kenya linked with community-based approaches (CBA) in relation to climate change and policy implementation.

One of the main paradoxes of climate governance in Kenya is the critical need for implementing community-based approaches to adaptation that are locally relevant, participatory and context-sensitive, but at the same time the effectiveness of these approaches is limited by the policy and institutional frameworks that are supposed to enable them. While CBA aims to strengthen the ability of local actors and leverage local knowledge and

traditions, in practice the process is often dominated by top-down planning, differential county capacity, poor coordination, and a lack of community priorities in formal decision-making, which limits the impact of the process compared to what it is intended to achieve. This implies that while funding, technical assistance, and legal power may be centralized and/or inconsistent, communities are expected to lead adaptation on the ground, which creates limitations on transformative outcomes and risks at best tokenistic involvement and at worst, no local ownership at all. CBA are good, but short term and require an aggressive systems support (Eriksen & Lind, 2009).

Mombasa County has seen the significance of climate change, especially being a coastal County and with the threat of sea-level rise. The County has put together the Mombasa City County Climate Action Plan 2023-2050 which provides the strategies for climate resilience (County Government of Mombasa, 2023). The capacity of the institutions is still a major problem, however. There is no specific department in the county to manage climate change, and it is distributed across multiple departments, with coordination challenges. Other technical constraints such as limited technical skills and inadequate resources also hinder the execution of climate initiatives (Mbugua 2025).

Kisumu County is making progress in climate change governance. The county has passed the Kisumu County Climate Change Act No. 7 of 2020, which provides a legal framework for climate action (Kisumu County Government, 2023). Kisumu has dedicated Ksh100 million – equivalent to 2 per cent of its development funds – in climate change mitigation projects in the 2023-2024 financial year (The Star, 2024). These funds provide funding for six community-based projects, including water infrastructure development management projects. A landmark climate litigation case in Kenya, by members of the Ilchamus and Tugen communities, alongside Kituo cha Sheria in 2010, is ongoing in the Environment and Land court in Iten, where the petitioners claimed that the flooding in and around the Lake Baringo due to climate change caused massive displacement, deaths, and destruction of property, and that public officials failed to perform their duty and responsibilities under the Constitution of the Republic of Kenya 2010 and the Climate Change Act No. 11 of 2016 Laws of Kenya. The petition proposes far-reaching remedies for the state's failure, rehabilitation and relocation, compensation and resettlement for affected Ilchamus and Tugen communities.

RECOMMENDATIONS

The study recommends the following which can enhance community-based approach to climate change and the operationalization of climate policies in Kenya.

- Ensure that national climate policy, county climate action plans, and ward priorities are aligned with each other to ensure that community-based adaptation is well integrated into implementation and budgeting.
- Establish local governance for climate change by assigning clear roles within the planning, prioritization, implementation and monitoring of local climate action to community structures, ward platforms and county climate units.
- Increase predictable, transparent and timely climate finance through County Climate Change Funds and other devolved financing mechanisms, with robust accountability protections in place.
- Enhance county and community capacity around climate mainstreaming, project design and procurement, fiduciary management, implementation, and reporting of results.
- Improve coordination across national ministries, county governments, and local institutions to reduce fragmentation and clarify mandates, financing flows, and reporting responsibilities. Focus on practical investments in resilience in the water, agriculture, livelihood, rangeland management, early warning, disaster risk reduction, and nature-based solutions sectors in particular.
- Ensure the incorporation of Indigenous knowledge, local experience, and scientific climate information to ensure relevance, inclusivity and sustainability of adaptation measures.
- Take measures to ensure that climate action is socially inclusive, by involving women, youth, pastoralists, persons with disability, informal settlement residents and other vulnerable groups in a meaningful way in the decision making and benefit sharing process.
- Increase transparency, anti-corruption practices and public accountability by providing disclosure on budgets and projects, through community oversight, audits and grievance redress mechanisms.
- Implement robust Monitoring, Evaluation and Learning systems to monitor and report on the extent of resilience achieved, community feedback and policy effectiveness, and to facilitate sustained policy coherence and collaboration.

CONCLUSION

Finally, community-based approaches (CBAs) continue to be a critical avenue for climate change response as they focus on local knowledge, community engagement, and local climate action capacity, but maximizing their impact requires better integration with national and county-level climate policies, continued investment, and responsible institutions. The Kenyan experience has shown that while the country has relatively advanced climate policy frameworks, and has low global emissions, climate vulnerabilities continue to be experienced by vulnerable communities, due to low implementation capacity, structural inequalities and low adaptive capacity, and there is a need to link community-based actions with effective governance, implementation of policies, and long-term transformative support.

Future studies should explore the long-term impacts of county-level climate policies on community resilience and environmental outcomes. Additionally, research into the effectiveness of different stakeholder engagement models could provide insights into best practices for inclusive climate governance.

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