THE IMPACT OF CLIMATE CHANGE ON FOOD SECURITY AND HUNGER IN RURAL KENYA:

An Integrated Analysis of Christian Aid Kenya's Interventions, Indigenous Practices, and County Climate Financing Mechanisms

SUMMARY REPORT

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Cover Image: A woman rolls a jerrycan of water in Marsabit County, Kenya, where prolonged drought has left pastoralist communities struggling with severe food and water shortages. (Photo: Getty Images)

Image 01: Man carries water from a distant watering hole in Marsabit. (Photo: Trocaire)

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Acknowledgements

Climate change is a defining crisis of our time, disproportionately affecting vulnerable communities across the globe. Nowhere is this more evident than in Marsabit County, Kenya, where erratic rainfall, prolonged droughts, and rising temperatures have drastically undermined food security. The pastoralist and farming communities, whose livelihoods are deeply intertwined with the environment, face significant hardships due to dwindling water sources, reduced agricultural yields, and loss of livestock. This study serves as both a testament to these challenges and a call to action, emphasizing the urgency of adopting sustainable, climate-resilient strategies.

This report is the result of the collaborative efforts of many dedicated individuals and organizations. We extend our deepest gratitude to the Christian Aid Kenya team for their commitment to building climate resilience and food security in vulnerable communities. We sincerely thank SUSWATCH Kenya, who led the research underpinning this work, and our implementing partners PACIDA and CIFA, whose deep engagement at the grassroots level was instrumental to this study.

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Special thanks go to the County Government of Marsabit for their support and collaboration in advancing locally-led climate initiatives. Most importantly, we express our heartfelt appreciation to the people of Marsabit County, whose resilience, lived experiences, and insights have shaped the heart of this report and continue to inspire our shared pursuit of climate justice.

Date:
January 2025

1. Introduction

Image 02: Women from Burata Self-Help Group in Dadach Lakole Location, Marsabit County, pump water from a borehole funded by PACIDA and Christian Aid in July 2023. The borehole was drilled to enhance inclusive water governance and improve water infrastructure in the county, addressing the challenges of water scarcity exacerbated by climate change. (Photo: Pasca Chesach/Christian Aid)

Climate change is a significant challenge to global food security, particularly in regions such as Kenya's arid and semi-arid lands (ASALs). Despite contributing minimally to greenhouse gas emissions, these regions are disproportionately vulnerable to its impacts. Extreme weather events such as erratic rainfall, prolonged droughts, flooding, and rising sea levels pose substantial risks to lives, livelihoods, and ecosystems. These climatic disruptions deeply affect agricultural productivity, livestock rearing, and overall nutritional outcomes.

Marsabit County, located in northern Kenya and the country's largest by landmass, epitomizes these vulnerabilities. Agriculture, primarily livestock farming, is the main economic activity in the county. However, climate change presents significant challenges, including droughts, floods, high temperatures, and unpredictable rainfall, which severely disrupt agricultural activities. The pastoralist and farming communities face increasing hardships due to dwindling water sources, reduced agricultural yields, and livestock losses.

In recent decades, extreme heatwaves and heavy precipitation have exacerbated droughts and posed challenges to sustaining food production and ecosystem health. In Marsabit, where livelihoods are largely livestock-based, erratic rainfall and water scarcity degrade grazing land, further reducing livestock productivity. This undermines income and food security, particularly for women, children, and the elderly.

Data from Marsabit highlights unpredictable rainfall patterns, resulting in decreased household milk production, a key indicator of nutrition security. One in five children is underweight, reflecting poor food variety, rising poverty, and ineffective drought mitigation efforts. Without robust adaptation strategies, these communities face escalating hunger, economic losses, and long-term livelihood instability.

Since 2011, Christian Aid Kenya (CAK) and its partners have worked in Marsabit to strengthen community resilience to drought and food insecurity. Through policy advocacy, social protection programs, capacity building, and water infrastructure projects, CAK has aimed to reduce vulnerability and enhance food security. However, the persistent climate challenges call for an assessment of the effectiveness of these interventions and identification of areas for improvement.

To evaluate the impact of climate change on food security in Marsabit, this qualitative study employed a participatory data collection approach, including surveys, focus group discussions, key informant interviews, and an adapted participatory video method. Field observations were also used to gather measurable aspects of the project.

Christian Aid, in partnership with the Pastoralist Community Initiative and Development Assistance (PACIDA) and Community Initiative Facilitation and Assistance (CIFA), has been active in Marsabit since 2011. Their community resilience programs, funded by various initiatives, focus on strengthening resilience against drought and food insecurity and address-

ing immediate needs and long-term environmental changes through policy advocacy, structural establishment, and capacity building. CAK also emphasizes locally led adaptation, ensuring that marginalized communities can participate in government development processes, hold authorities accountable, and take ownership of their adaptation strategies.

The primary objectives of the research were to:

1. **Demonstrate the impact of climate change on hunger and food security in rural communities in northern Kenya.**
2. **Examine the impact of Christian Aid's work in the communities on climate change-induced food security and hunger in Marsabit County.**
3. **To identify areas in which Christian Aid Kenya can improve its climate change programming and advocacy work.**

The following key questions guided the study:

1. **How does climate change impact food security and hunger in rural communities in Kenya?**
2. **How have CAK climate change interventions impacted hunger and food security among rural communities in northern Kenya?**
3. **How have indigenous knowledge and local practices contributed to mitigating the impact of hunger and food security?**
4. **How is the established county climate financing mechanism enabling effective participation of the marginalized and vulnerable community members in climate adaptation and mitigation decision-making?**

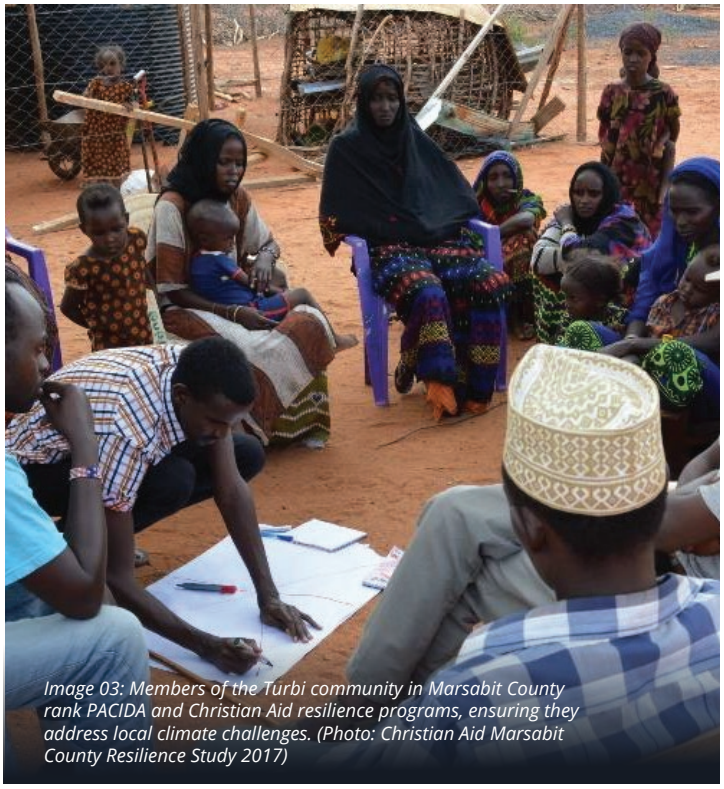

Image 03: Members of the Turbi community in Marsabit County rank PACIDA and Christian Aid resilience programs, ensuring they address local climate challenges. (Photo: Christian Aid Marsabit County Resilience Study 2017)

2. Methodology

The research employed a cross-sectional methodology, integrating both qualitative and quantitative data collected from partners, project participants, county government, and other stakeholders. The decision to use a participatory audiovisual approach ensured that selected communities and individuals could tell their own stories of impact with minimal external influence in shaping the direction of the narrative.

As such, the study emphasizes community experiences and perspectives in relation to food security and hunger in the county, and Christian Aid's response to it.

3. Key Findings: Climate Change and Its Impact on Food Security and Hunger

Image 04: Two Rendille pastoralists extract water from a well in the village of Kargi, in Kenya's arid northern Marsabit County. (Photo: Gerald Anderson/Anadolu)

Climate change exacerbates food insecurity and hunger in Kenya's arid and semi-arid lands (ASALs) through interconnected environmental, socio-economic, and institutional pathways. The findings from the study uncover how these dynamics are manifested in Marsabit County, which is characterized by its pastoralist economy and ecological fragility.

Christian Aid Kenya's video on the Impact of Climate Change on Food Security and Hunger in Marsabit County: https://www.youtube.com/watch?v=NJCyfqFSdCU

3.1 Climatic Disruptions and Agricultural Vulnerabilities

Recent climatic trends in Marsabit County indicate an alarming pattern of erratic rainfall and prolonged droughts. These conditions disrupt traditional agricultural cycles, compromise water availability, and significantly diminish pasture quality. The region's reliance on rain-fed agriculture and pastoralism renders it acutely vulnerable to climatic shifts. Over 95% of local crops are dependent on rainfall. Consequently, prolonged droughts, such as those experienced in 2022–2023, have resulted in reduced groundwater recharge, degradation of vast grazing lands, and livestock mortality rates exceeding 50% in pastoral households (Marsabit CIDP, 2023).

These losses directly threaten dietary diversity, as livestock products are a primary source of nutrition. Furthermore, erratic rainfall disrupts crop cycles, causing maize and bean yields to decline, further exacerbating food shortages and compromising household nutritional security. Water instability and agricultural challenges place additional burdens on women responsible for household food production and water collection.

> ***I used to have a better life since my family was wealthy before the devastating drought.***
>
> ***We lost all our livestock which was our main source of livelihood. Now I sell firewood which I never planned or dreamed of. I have to wake up early to go deep into the wilderness to fetch whatever firewood I find. As women in the community, we have formed Self Help Groups where we save money to buy foodstuff. At the community level, we have resorted to collecting firewood and cutting trees to make charcoal to meet our daily needs.***
>
> ***48 years old, Kaladalacha***

Climate instability and extreme weather events compound vulnerabilities by destroying infrastructure, displacing households, and contaminating water sources. Such events create feedback loops: displaced communities lose access to arable land, while waterborne diseases (e.g., cholera) strain healthcare systems already burdened by malnutrition (Green Africa Foundation, 2018).

3.2 Socioeconomic and Health Vulnerabilities

Beyond immediate agricultural challenges, climate-induced adversities have profound socioeconomic implications. The loss of livestock and reduced agricultural productivity have resulted in declines in household income, pushing vulnerable groups—such as women, children, and the elderly—into deeper poverty. For example, the Borana community's near-total loss of cattle during the 2022–2023 drought highlights the fragility of pastoralist economies. Households like Guyo Abba's—once economically stable—now depend on humanitarian aid, illustrating systemic collapse. This precipitates migration to urban centers, fragmenting social structures and increasing school dropout rates by 25% (MoALF, 2018).

The diminished access to nutritional food has been linked to increased incidences of malnutrition in which acute malnutrition affects 40% of children under five in Marsabit. It is also linked to chronic health conditions such as kwashiorkor, diabetes, and high blood pressure, especially among vulnerable groups such as the elderly and pregnant women. (IPC, 2023; Marsabit CIDP, 2023).

Waterborne diseases like cholera emerge during droughts due to shared water sources between livestock and humans. Women, who are primarily responsible for water collection, are at higher risk of exposure to contaminated water. Additionally, floods following prolonged droughts displace communities, leading to further vulnerabilities and increasing the prevalence of diseases like malaria. These health challenges are compounded by food insecurity resulting from livestock losses and reduced access to nutritional sources like milk and meat. Psychological distress caused by these losses also impacts community well-being, leading to increased incidences of mental health issues and social disintegration.

This has led community members to adopt unsustainable coping strategies, such as charcoal burning. The loss of forest cover has led to reduced biodiversity, soil erosion, and disruption of water cycles, which cause environmental deterioration. This perpetuates the cycle of food insecurity.

> ***Alnoor Ali from Yabalo says: 'at the household level, we are limited to having one meal per day, typically during lunchtime. Access to nutritious food is a challenge as our diet mainly consists of maize and beans.'***
>
> ***This limited food variety has led to food scarcity within households. To cope with this scarcity, some households resort to burning charcoal for additional income. However, this practice further exacerbates the problem as it contributes to environmental degradation.***

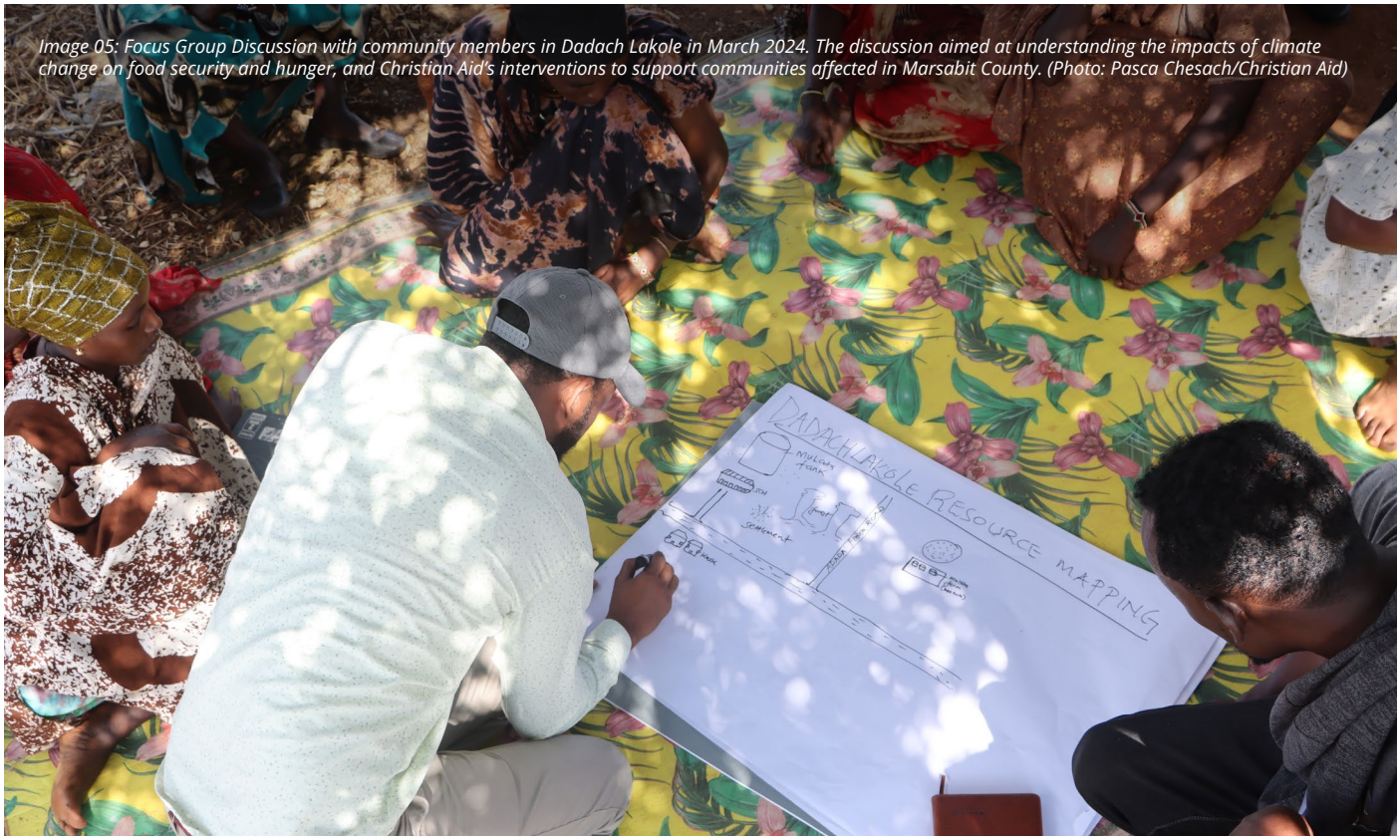

Image 05: Focus Group Discussion with community members in Dadach Lakole in March 2024. The discussion aimed at understanding the impacts of climate change on food security and hunger, and Christian Aid's interventions to support communities affected in Marsabit County. (Photo: Pasca Chesach/Christian Aid)

3.3 Indigenous Knowledge and Local Practices

Indigenous knowledge has historically played a crucial role in local adaptation to environmental variability in Marsabit. Traditional practices such as indigenous weather forecasting and water conservation techniques have provided valuable insights into managing climate risks. For instance, elders in Kokub Village have historically preserved small forests and accessed honey during drought periods. As droughts persisted, the community adapted by engaging in charcoal burning, crucial for sustenance. They also search for drought-resistant fruits, replacing traditional water storage methods like the Okole tree, which became unreliable. Animal husbandry strategies involve sharing livestock during droughts, particularly focusing on camels and goats for their resilience. Additionally, traditional methods of digging shallow pits for water storage and cultivating maize seedlings suited to local conditions have been essential for sustaining livelihoods.

The impact of climate change has posed significant challenges to these traditional practices. Prolonged droughts have led to the depletion of stored food and limited food sources, while significant livestock losses have undermined traditional community survival and animal husbandry strategies. Furthermore, indigenous methods of predicting rainfall have become increasingly unreliable, affecting community preparedness. The erosion of indigenous values by modern education and Christianity has also contributed to the decline in respect for traditional approaches. As a result, the future of building resilience to climatic shocks depends on better integrating modern and indigenous weather forecasting methods.

> ***I was a salesman selling livestock, now the livestock have died due to drought and my business is no more. Now I stay at home and depend on community help to survive day by day.'***
>
> ***- Wario Mamo Bofa***

3.4 Systemic Vulnerabilities

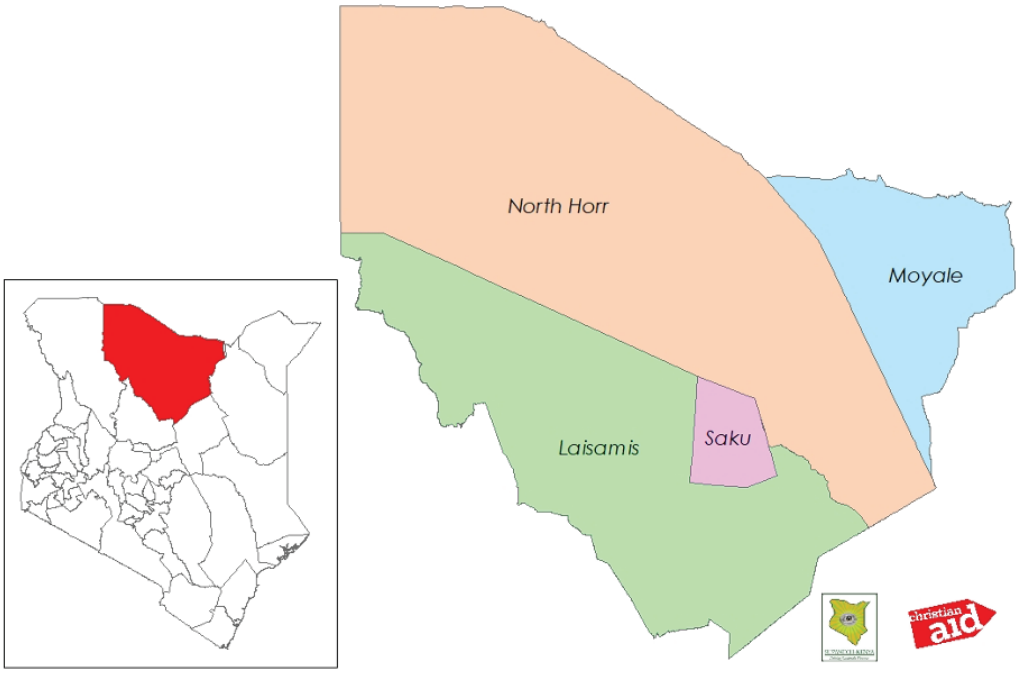

Figure 1: A map of Marsabit County, Kenya, highlighting its four sub-counties. Marsabit County is one of the regions most affected by climate change, facingprolonged droughts that threaten food security and access to water. Source: County Integrated Development Plan for Marsabit County 2023 – 2027

Marsabit County has implemented various legislative and policy measures to address climate change challenges. Key initiatives include the Marsabit County Energy Development Act 2016, promoting renewable energy to reduce reliance on natural vegetation, and the Marsabit County Climate Change Action Plan (2023-2027), which targets investments in drought mitigation, climate-smart agriculture, livelihood diversification, environmental protection, and health measures. Additionally, the County Climate Change Policy (2019) and County Climate Change Fund Act (2020) provide financial support for climate adaptation and mitigation projects.

Weak governance, limited political support, and underfunded climate policies hinder adaptive capacity. The Marsabit County Climate Change Fund Act (2020), though progressive, remains underutilized due to low community awareness and bureaucratic delays. A key challenge lies with the county government, which is responsible for leading effective public participation and creating an enabling environment for resources to reach the community. Reflecting systemic underinvestment, it means that many households struggle to afford fortified seeds, resorting to traditional varieties ill-equipped to withstand fluctuating weather conditions and do not have access to climate resilient water sources (CIDP, 2023).

The Ward Climate Change Planning Committees (WCCPC) also face significant obstacles in conducting regular meetings due to the vast distances between members' locations, approximately 180 kilometers apart. Additionally, the lack of remuneration for committee members hinders the prioritization of meetings, impacting the frequency and effectiveness of overseeing climate change projects within the community.

Furthermore, community awareness of climate finance mechanisms and the involvement of the County Climate Change Planning Committee is limited. Many community members, including members from the Namanyara women's group, express their concern that public participation processes led by the County Government of Marsabit are inadequate, leading to unmet needs and challenges at the grassroots level. They highlighted that it has been a year since they last received support from the county government. The County Climate Change Act of 2020 mandates the allocation of a minimum of two percent of the county budget annually to finance climate actions, but community members are largely unaware of this provision. There is a call for the county government to improve transparency, establish proper distribution techniques, and enhance public participation to ensure effective climate action and support for the community.

Image 06: Teresia Olmele from Kamboe Location, Marsabit County, is a member of the 34-woman Namaiyana Self-Help Group, which sells milk to support livelihoods. Climate change has severely impacted them, causing livestock deaths and water shortages. Christian Aid, with CIFA and PACIDA, works through self-help groups to build community resilience. (Photo: Pasca Chesach/Christian Aid)

3.5 Community Adaptation Strategies

In response to the adverse effects of climate change, communities in Marsabit are adopting various strategies to adapt. These include water harvesting techniques such as rooftop and fog harvesting, construction of water pans and shallow wells, desilting of existing dams, and installation of water tanks. Livestock farmers frequently adapt by transitioning to different livestock breeds and implementing practices like feed conservation, livestock diversification, and planting of fodder and fruit trees. Crop farmers are embracing seed storage and adopting drought-resistant varieties like katumani and arrow roots for maize, as well as other resilient crops such as teff, sweet potato, cassava, millet, cowpeas, green grams, and khat.

Many of these adaptation strategies are women-led. Women in Marsabit County actively participate in Self Help Groups (SHGs) and Village Savings and Loans Associations (VSLAs). These groups enable women to engage in income-generating activities, such as vegetable cultivation and livestock management.

Due to water scarcity in the region, the communities engaged said they have designated the limited water points, including water pans and wells, as sacred. As a result, strict rules have been implemented to preserve the integrity of these vital resources.

One such rule is the prohibition of drinking animals directly from the wells, ensuring that the water remains clean and suitable for human consumption. Additionally, they say, women who in most cases goes to these wells, are not allowed to enter the wells with shoes, as this could introduce contaminants and compromise the quality of the water.

These measures are essential for safeguarding the community's access to clean and safe water, particularly in times of scarcity, and help prevent waterborne diseases and ensure the well-being of all residents. Besides, most of the pans were said to be quite deep and have successfully been fenced off and its inlet secured. This measure ensures that children do not accidentally fall into the pan. The community has also implemented a system for distilling the inlet drainage to harvest clean water into the water pan.

'We practice maize crop farming; however, production has been low due to pest attacks on our farms. We are currently preparing our farms, hoping, and expecting that it will rain by April 2024. I used to own a canteen stocked with food, but because of a prolonged drought, my goods were given to the community. The shop had to close as a result. I then decided to buy milk from the village households and put it in jerricans to sell in Marsabit town. I sell to buy food for my family."

- Teresia Olmele

4. Examining the impact of interventions by Christian Aid Kenya (CAK) on food security and hunger in Marsabit County

Image 07: Community members in Turbi Location discuss how self-help groups, supported by Christian Aid, PACIDA, and CIFA, empower women, foster self-reliance, and reduce gender-based violence—becoming beacons of hope amid environmental challenges. (Photo: Pasca Chesach/Christian Aid)

CAK works closely with their partners to employ a multi-pronged approach aimed at addressing both the immediate needs and long-term resilience of the communities. Key initiatives include capacity-building initiatives, such as Participatory Rural Appraisal (PRA) and the formulation of Community Action Plans (CAPs), to support local populations to articulate and address their unique challenges. It also includes strengthening the skills and knowledge of local leaders and government officials on climate change adaptation and disaster risk management. These participatory approaches have fostered social accountability and ensured that programmes are tailored to community priorities, thereby enhancing the overall efficacy of the response. Other interventions CAK has carried out to enhance food security include:

- **Safety Net Programs:** Christian Aid Kenya has implemented safety net programs that incorporate cash transfers and social protection initiatives. These programs aim to provide immediate relief to vulnerable households and support their recovery from climate-induced shocks.
- **Livestock Market Systems:** Initiatives in the livestock market system have been established to enhance the economic stability of pastoralist communities. These initiatives include improving market access, providing training on livestock management, and supporting the diversification of livestock breeds.
- **Water Infrastructure:** Maintenance and development of water infrastructure have been a critical component of Christian Aid's interventions. This includes the excavation of water pans, drilling of boreholes, and distribution of water tanks for water harvesting and storage.
- **Village Savings and Loan Associations (VSLAs):** Christian Aid has established and supported VSLAs to enhance community resilience by fostering financial inclusion and empowering local communities economically. These associations provide a platform for community members to save money, access loans, and invest in income-generating activities.

Video of the Impact of Christian Aid Kenya's Climate Change Work on Food Security and Hunger: https://www.youtube.com/watch?v=MItZ1FlglvU

4.1 Promoting Climate-Smart Livelihoods

Image 08: Narau Nderewa and a fellow farmer from Kamboe pose inside a greenhouse where they grow vegetables together. Initiatives by CIFA, PACIDA, and Christian Aid empower women by boosting income, ensuring food security, and enhancing their roles in the community. (Photo: Pasca Chesach/ Christian Aid)

CAK's strategic programming emphasizes the promotion of climate-smart agricultural practices and the diversification of livelihoods. By introducing drought-tolerant crop varieties, investing in water harvesting infrastructure, and advocating for improved livestock management practices, CAK has contributed to increased food availability and income diversification. These initiatives are complemented by emergency response measures, including cash transfers and targeted food aid, which have been instrumental in stabilizing households during periods of acute climate stress.

> ***Wako Liban, the Project Manager at CIFA stated: 'We are currently working on sensitizing the community to diversify their livelihoods. Initially, the community viewed farming as neither a priority nor a respectable practice, as they were primarily pastoralists. Therefore, as CIFA, we are striving to integrate climate-smart agriculture and advocate for households to adopt kitchen gardening.'***
>
> ***In Laisamis Sub-County, the Naisula Nailagari group, through PACIDA, purchased water tanks for the community, built a greenhouse, and planted Sukuma wiki, spinach, and coriander. They sell this produce to the community at a lower price and use the profits to buy pumps for watering the tanks."***

> ***Adan Jaldesa Molu says through the cash transfer, I can access money for tilling the farm for subsistence, and the She-Gala goats given to me by CIFA can provide milk for household consumption. I purchase resilient seedlings known as 'Katumani' to plant maize, which grow within three months compared to the normal ones that take three months."***

4.2 County Climate Financing Mechanism and Inclusive Participation

Image 09: Women from Kamboe Location participate in a Focus Group Discussion on the impacts of climate change. They reflect on how Christian Aid-PACIDA's interventions have supported their resilience. (Photo: Pasca Chesach/Christian Aid)

Marsabit County has instituted a comprehensive climate financing framework underpinned by legislative instruments, notably the County Climate Change Fund Act (2020). This mechanism is designed to channel resources into climate adaptation and mitigation initiatives at the local level. The structure includes the establishment of Ward Climate Change Planning Committees (WCCPCs), which comprise community representatives alongside local government officials. Such committees are strategically composed to ensure the inclusion of marginalized groups—women, youth, and persons with disabilities—in the planning and decision-making processes.

CAK and their partners have played a crucial role in strengthening these mechanisms by providing training and capacity-building workshops. The training sessions covered topics such as understanding climate change impacts, and identifying adaptation and mitigation strategies, and engaging with stakeholders. Despite challenges such as geographic dispersion and lack of remuneration, the committees have adopted alternative approaches to facilitate communication and collaboration. These interventions have also promoted inclusive participation by ensuring the effective involvement of marginalized and vulnerable community members in climate adaptation and mitigation decision-making.

4.3 Supporting community-led responses

Christian Aid has also facilitated community-led initiatives through the supporting community-led response (sclr) approaches. This approach empowers crisis-affected communities to lead and manage responses to emergencies, improving their immediate well-being, supporting early recovery, strengthening long-term resilience, and accelerating social change. For example, communities in North Hor and Laisamis Sub-County have implemented projects ranging from livelihood, water sanitation and hygiene, food security, youth empowerment, education, women empowerment, environmental management, and hay plantation for livestock feeds.

The community members of Dadachdakole in Moyale Sub-County said they have established Self Help Groups (SHGs) at the community level, and through the sclr program facilitated by CIFA, the community can purchase water at an affordable rate. Those who cannot afford it within the community are allowed to drink the water for free. This water vending initiative was proposed by the community and made possible through grants, en-abling us to install water tanks that harvest rainwater for house-hold use and cultivation purposes. Currently, we have twenty SHGs and 30 community members operating shared farms to ensure food security through cultivation.

Additionally, as part of the im-plementation of the Community Action Plan by CIFA, twenty beehives were distributed to households to diversify their livelihoods. The community in the Kalacha location, North Hor Sub-County, has established Self-Help Groups (SHGs) at the community level, and through the sclr program facilitated by PACIDA, the community was able to purchase 30 goats. These goats were then distributed to households that had lost their livestock and currently had none.

As a result, each household now has at least three goats, including the She-Galla goat breed, which has a shorter gestation period and gives birth every three months. This breed is known for its faster reproduction rate compared to regular indigenous goats. In addition to livestock support, households are now adopting the practice of creating kitchen gardens using sacks filled with soil. In these gardens, they plant various vegetables for household con-sumption, and some surplus produce is sold for income.

4.4 Shifting attitudes towards women

Image 10: Members of the Funan Qumbi community discuss their seasonal calendar with PACIDA and Christian Aid staff, a key step in planning climate adaptation strategies based on local knowledge. (Photo: Christian Aid Marsabit County Resilience Study 2017)

The families within Marsabit communities now depend on women for the provision of food to the families. Previously, men typically made decisions regarding the sale of family livestock without consulting women. However, due to the loss of livestock resulting from drought, men now rely on women for survival, recognizing the crucial role they play in securing food and income for the household. As a result, there has been a positive shift in attitudes towards women's involvement in decision-making and their contributions to household resilience.

> ***Through the community group, we've accessed 200,000 shillings from the Social Community Livelihood Response Program, which was utilized for restocking goats and supporting livestock businesses within the group for buying and selling livestock from'***
>
> ***- Adan Jaldesa Moly***

The support women are receiving from CIFA & PACIDA through various initiatives, backed by Christian Aid, is contributing to this positive change. Women are being empowered through programs that provide them with resources and opportunities to enhance their livelihoods, such as livestock restocking, beekeeping, and improved agricultural practices. These initiatives not only help women generate income and ensure food security but also elevate their status within the community as essential contributors to household well-being.

> ***We have seen it is possible and there are many more opportunities through which we can elevate Marsabit women. One way is to promote women-led pasture cultivation which they can harvest, store, and supply to herdsmen during crisis. Men will respect them more and more'***
>
> ***- Janet Ahatho, County Director of Climate Change for Marsabit County.***

5. Key Challenges

Image 11: Herders draw water from a borehole to sustain their camels amid worsening drought conditions in northern Kenya in October 2021. (Photo: Brian Inganga/AFP)

The research highlighted several key challenges to addressing the impact of climate change on food security and hunger including:

5.1 Limited Political Support

The primary challenge lies with the county government, which is responsible for leading effective public participation and creating an enabling environment for resources to reach the community level and implement projects, programs, policies, or acts. However, there is limited political support and will in this regard. Despite this, there has been some progress by Christian Aid and partners in community sensitization and capacity-building efforts directed at the duty bearers, which has slightly improved political will.

5.2 Lack of coordination among development actors on development projects

Another challenge is the coordination among development actors at the county level, necessary for directing resources toward addressing the most critical needs. Currently, various actors, including Non-Governmental Organizations like Christian Aid, often work independently to tackle community challenges, leading to inefficiencies.

5.3 Fragmented interventions affecting Christian Aid's impact

Christian Aid's interventions currently span three out of four sub-counties and ten out of twenty wards, with a primary focus on one to two locations within each ward. However, within each ward, there are three to four additional locations that remain untouched, resulting in fragmented interventions that lack the comprehensive coverage they should have.

Image 12: Members of the Qatamur community in Marsabit County. (Photo: Christian Aid Marsabit County Resilience Study 2017)

6. Recommendations For Enhanced Programming and Advocacy Work

The following recommendations are proposed to enhance the effectiveness of climate change adaptation strategies, improve food security outcomes, and bolster community resilience in Marsabit County:

6.1 Enhance Resource Optimization and Technological Integration

Given the vastness of Marsabit County, Christian Aid should explore innovative strategies to optimize resources and minimize logistical challenges. This may involve leveraging technology for remote communication, utilizing community-based organizations as intermediaries, and exploring partnerships with local transport providers to streamline travel within the county.

6.2 Strengthen Climate-Resilient Practices

Recognizing the significant impact of climate change on the region, Christian Aid should prioritize the implementation of climate-resilient interventions. This includes promoting sustainable agricultural practices such as drought-resistant crop varieties, water harvesting techniques, and livestock management strategies adapted to changing climatic conditions. Investing in early warning systems and community-based disaster preparedness initiatives can also enhance resilience to climate-related hazards. Furthermore, Christian Aid acknowledges its limited focus on agriculture but recognizes a growing interest among communities in adopting new agricultural practices, especially in kitchen gardening. While current efforts prioritize crop production, particularly maize and beans in selected sub-counties, there's a pressing need to expand interventions in climate-smart agriculture, including initiatives in climate-based enterprises and regenerative agriculture.

6.3 Advocacy and capacity building

Addressing the limited political support requires concerted advocacy efforts to engage with county authorities and advocate for policies that support community resilience and development. Christian Aid can also continue to invest in capacity-building programs to strengthen the skills and knowledge of local leaders and government officials on climate change adaptation and disaster risk management. Regular training sessions should be institutionalized for Ward Climate Change Planning Committee members and local leaders, covering topics such as climate impacts, adaptive agricultural practices, disaster risk reduction, and participatory governance. This continuous learning process will enhance technical competence and foster a culture of proactive climate action.

6.4 Improve Public Awareness and Facilitate Inclusive Participation

Enhancing the effectiveness of the county climate financing mechanism requires robust public awareness campaigns. It is recommended that comprehensive educational programs—utilizing workshops, community meetings, and digital platforms—be implemented to inform communities about available funding opportunities. Moreover, providing transportation allowances or modest stipends to Ward Climate Change Planning Committee members will incentivize regular participation and improve the overall governance of climate adaptation projects.

6.5 Strengthening coordination mechanisms

Fragmentation among various stakeholders has led to inefficiencies in resource utilization. Christian Aid should actively work towards fostering collaboration and coordination among development actors operating in Marsabit County including government agencies, non-governmental organizations, community-based organizations, and academic institutions. This may involve establishing multi-stakeholder platforms or forums where organizations can share resources, expertise, and best practices, thereby avoiding duplication of efforts and maximizing impact.

6.6 Comprehensive coverage and inclusivity

To address fragmented interventions, Christian Aid should prioritize expanding its reach to underserved locations within each ward. This may involve conducting thorough needs assessments to identify areas with the greatest needs and designing interventions that are inclusive and responsive to the diverse needs of the community. Adopting a holistic approach that considers the interconnectedness of development issues can help ensure comprehensive coverage and maximize impact.

6.7 Upscaling the supporting community-led response (sclr) and the Participatory Rural Appraisal (PRA) approaches

These approaches empower communities to identify challenges and develop their structures for effective advocacy. Scaling up these approaches promotes community involvement, advocacy, and civic education, empowering individuals to engage in decision-making processes and advocate for government accountability. Additionally, integrating the sclr approach facilitates community-led emergency response management, enhances resilience, and fosters social change, ultimately addressing challenges, promoting just climate actions, and reducing food insecurity in Marsabit County.

6.8 Integrate Indigenous Knowledge with Modern Adaptation Strategies

To harness the full potential of local adaptive practices, systematic documentation and integration of indigenous knowledge with modern meteorological data is imperative. Collaborative platforms that bring together indigenous experts, researchers, and policymakers should be established to develop hybrid models of climate forecasting and adaptation. This integrated approach will not only reinforce local adaptive capacities but also ensure that culturally relevant practices continue to play a pivotal role in resilience building. This is critical to building community trust in climate forecasting and adaptation strategies.

Image 13: A woman in YAA Galbo village in Marsabit receives goats during PACIDA's livestock distribution, supporting families hit hard by drought and floods. (Photo: PACIDA)

7. Conclusions

Climate change in Marsabit acts as a threat multiplier, intertwining ecological degradation, economic precarity, and institutional inertia. The result is a chronic food insecurity trap, necessitating interventions that address root causes rather than symptoms. The study serves as a call to action, emphasizing the urgency of adopting sustainable strategies to address the challenges posed by climate change and to ensure food security for vulnerable communities in Marsabit County. It elucidates that climate change, characterized by erratic rainfall, prolonged droughts, and episodic flooding, has significantly undermined food security and nutritional outcomes in Marsabit County. The multifaceted impacts extend from diminished agricultural productivity to heightened socioeconomic vulnerabilities among the most marginalized groups.

CAK's interventions—through capacity building, the promotion of climate-smart agricultural practices, and the integration of indigenous knowledge—have provided measurable improvements in community resilience. The county climate financing mechanism, while promising in its potential to facilitate inclusive participation, requires further optimization to overcome logistical challenges and enhance public engagement.

In summary, the synthesis of indigenous wisdom and modern adaptation strategies, coupled with improved coordination among development actors, forms the cornerstone of an effective response to the escalating challenges of climate change. Sustainable, inclusive, and technologically integrated approaches are imperative to safeguard food security and foster long-term resilience in rural Kenyan communities.

8. References

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