CLIMATE CROWD

Community-driven solutions to help people and nature in a changing climate

SAMBURU COUNTY

KENYA SUMMARY REPORT

DECEMBER 2024

ABOUT

Climate Crowd is a bottom-up community-driven approach. Working with communities and local NGOs, we collect data on climate impacts to communities, analyze the data, present the data back to the communities, and work with them to develop, fund and implement on-the-ground solutions that help people and nature adapt to a changing climate. The Climate Crowd model provides a rapid way to gather data, pilot projects, and mobilize financial resources for the most vulnerable communities, through a participatory method.

BACKGROUND

In Kenya, the Arid and Semi-Arid Lands (ASAL) are predominantly situated in the northern and eastern regions, including Samburu County. The WWF Water Risk Filter reports that Samburu County faces a moderate to high risk of drought. These ASAL areas face extreme weather challenges, including successive drought and flooding events that cause cascading damage. In April 2023, floods in Samburu County displaced 111 households and caused extensive property damage.[1] By August 2023, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) highlighted that ASAL communities were struggling with the effects of five consecutive seasons of below-average rainfall with incidences of depletion of water sources and an upsurge in inter-communal conflict.[2] The majority of the population in Samburu County depends on rain-fed farming and grazing that support agro-pastoral livelihoods.[3] Climate change continues to intensify the challenges faced by community members in Samburu County, further affecting their livelihoods and adaptive responses.

This report presents key insights gathered from 32 interviews with key informants (10 female, 22 male) in Samburu County, located in northwestern Kenya. Interviews were conducted by Nuru Kenya staff in November 2023. The key informant interviews involved a diverse group of stakeholders, including cooperative farmers, staff and leaders from the cooperatives, community health promoters, village elders, and representatives from various governmental and conservation agencies such as the National Drought Management Authority and Kenya Wildlife Services. Additional participants included SACCO loan officers, project officers, livestock officers, and dairy farmers, ensuring a comprehensive perspective on the community's agricultural and environmental challenges.

REPORTED CHANGES IN WEATHER AND CLIMATE (n=32)

- 100% Decreased rainfall
- 100% Drought
- 100% Loss of water source
- 94% Changes in the timing of seasons
- 44% Flooding
- 31% Heat waves and hotter days
- 22% Erosion and landslides
- 16% Changes in wind

[1] FEWS. June 2023. As Kenya recovers from historic drought, Crisis (IPC Phase 3) outcomes persist.

[2] OCHA. August 2023. Kenya Drought Response Dashboard. USAID. July 2023. Rapid Needs Assessment: Samburu and Baringo.

[3] USAID. July 2023. Rapid Needs Assessment: Samburu and Baringo.

IMPACTS ON COMMUNITY LIVELIHOODS

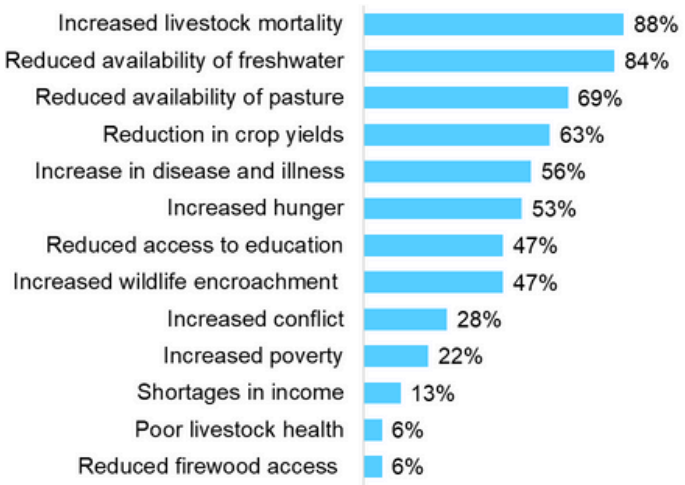
Livestock farming has seen a decline in productivity, leading to high mortality rates (88%) and poor livestock health (6%). This decline is largely attributed to the scarcity of available pasture for grazing (69%) and reduced access to freshwater (84%), which has also contributed to an increase in conflict among community members (28%).

Reduced crop yields (63%) are attributed to widespread reports of drought (100%) and decreased rainfall patterns (100%). The heavy reliance on rain-fed agriculture, coupled with reductions in rainfall, has negatively impacted crop productivity and the livelihoods of farmers.

Declining productivity and the negative impact on farmer livelihoods have contributed to an increase in illness (56%), including reports of rising malnutrition due to food shortages and increased hunger (53%).

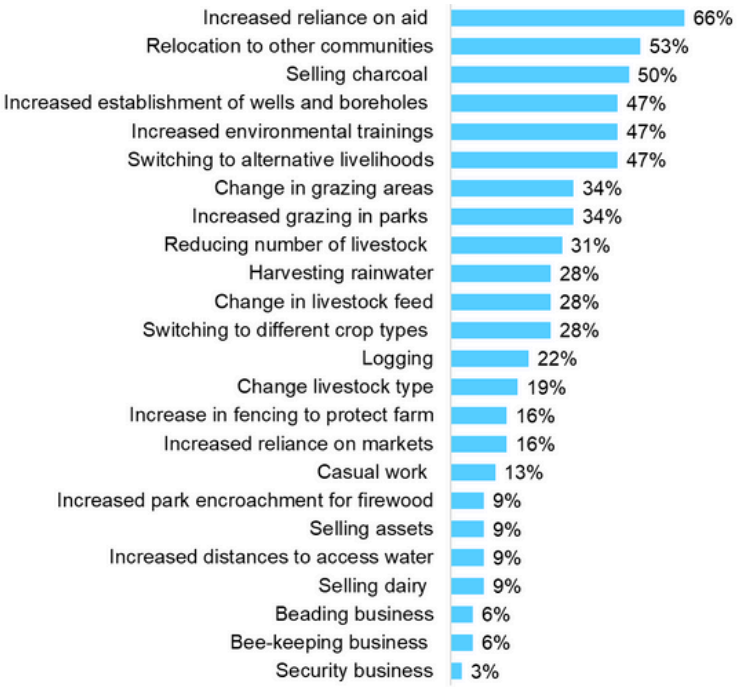
With water sources drying up (84%), there has been an increase in wildlife encroachment (47%), as animals like elephants, zebras, and gazelles venture into residential areas and farms in search of water.

Climate impacts on farmers' livelihoods have contributed to increased poverty (22%) and reduced incomes (13%), leaving many farming families unable to send their children to school (47%).



COMMUNITY RESPONSES TO CLIMATE CHANGE

There is an increased reliance on aid (66%), with communities depending on government food assistance, school feeding programs for meals, and health interventions to address malnutrition. In response to rising human-wildlife conflict and reduced pasture, the government and NGOs have supported the community through environmental training (47%) and the establishment of conservancies to conserve community forests and encourage controlled grazing.



In response to the scarcity of pasture and freshwater, pastoralists have increasingly relocated to other counties (53%) and turned to grazing in parks (34%) and new areas (34%). This situation has compelled pastoralists to destock or reduce their herd size (31%), change livestock feed (28%), and transition to more drought-tolerant breeds, such as camels and goats (19%).

As agriculture and livestock activities have become increasingly strained, community members have turned to alternative livelihoods (47%) to better cope with environmental, economic, and social shocks. Some have engaged in casual work (13%) to access income and purchase food, while others have pursued activities such as dairy production (9%), beekeeping (6%), beading (6%), and security work (3%).

Nuru Kenya staff and community members tour a honey processing facility in Samburu county.

As a result of water scarcity, there has been an increase in the establishment of boreholes and wells (47%) and rainwater harvesting (28%). Community members reported traveling longer distances to access water (9%).

The consequences of changing weather patterns have manifested as increased logging activities (22%), heightened demand for charcoal production (50%), and reduced natural regeneration of forest cover (28%).

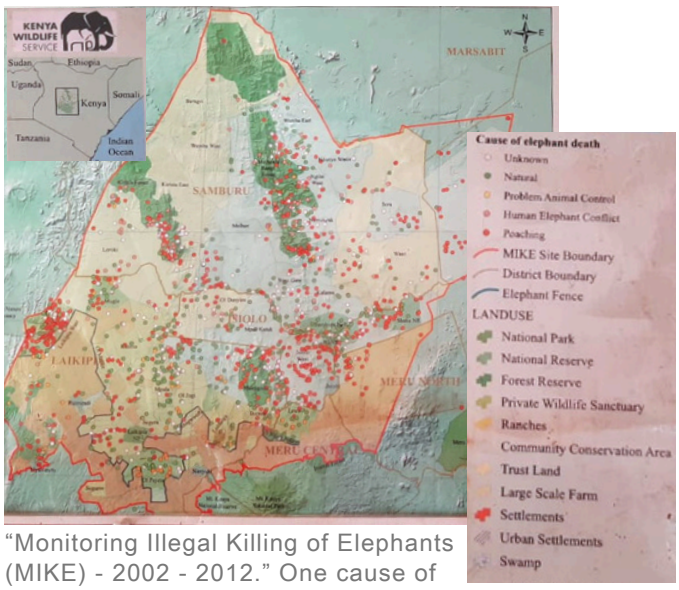
DIRECT IMPACTS ON BIODVIERSITY

Changes in weather and climate impact not only local communities but also significantly affect the region's biodiversity. **28% of community members reported forest loss, while 25% observed a decline in red cedar trees.** The decrease in red cedar trees was linked to drought, whereas forest loss was attributed to lotus infestations, as well as increased logging and charcoal production. In response to the reduction of tree cover, the community has been encouraged to establish nurseries and plant trees both at home and on their farms. Although there has been a decrease in tree populations, invasive plant and weed species have increased. **28% of community members observed an increase in invasive plant and weed species, specifically mentioning Acacia reficiens and Themeda triandra.** Acacia reficiens can hinder the growth of other trees and grasses (i.e., allelopathic effect) that are essential for livestock forage, negatively affecting pastoralists and their herds' ability to obtain adequate food.

INDIRECT IMPACTS ON BIODIVERSITY

Climate change impacts can lead to maladaptation as community members adapt their behaviors to shifting weather patterns and extreme events. Without support, these negative coping mechanisms will negatively impact biodiversity. As natural resources become increasingly scarce, these communities often have limited options and rely on what remains, resulting in further depletion and environmental degradation. For instance, 50% of community members reported entering forests, such as Kirisia Forest, in search of water, grazing land and firewood. In turn, the degradation of biodiversity is worsened, as 53% of community members have resorted to extractive livelihoods like charcoal production and logging to generate income in response to rising poverty levels. Additionally, prolonged drought and the scarcity of pasture and vegetation for livestock have compelled 44% of livestock farmers to relocate their grazing areas. However, positive responses are emerging and in need of additional support. For example, community-led initiatives to increase regeneration efforts focused on planting fodder and trees are present (72%).

Human-wildlife conflict has escalated as resources such as water and pasture have dwindled. **Half of the community members reported experiencing instances of this conflict.** They noted that diminished forest cover and water sources has driven wildlife to migrate, leading to zebras venturing into residential areas and elephants approaching homesteads in search of water. This has resulted in cases of wildlife damaging crops and injuring community members. In response to the rising human-wildlife conflict, Kenya Wildlife Services has provided compensation to families for destroyed crops and injuries sustained by community members.



"Monitoring Illegal Killing of Elephants (MIKE) - 2002 - 2012." One cause of these killings is human-wildlife conflict.

To address rising climate vulnerability and risk, Nuru Kenya supports community members, local leaders, and conservation organizations in developing sustainable local solutions. Together, we can protect our resources and ensure the safety of families and livelihoods while promoting coexistence with wildlife.

WANT TO LEARN MORE?

Visit the Climate Crowd **website** to explore and download interview data, view **project pages**, and read more summary reports like this on our **publications page**.

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Photo credits: Tom Kosgei/Nuru Kenya; George Nyamweya/Nuru Kenya
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