

SAMBURU COUNTY

CLIMATE CHANGE, FOOD SECURITY AND MENTAL HEALTH IN SAMBURU: FINDINGS AND PRIORITIES FOR ACTION

Fact Sheet | October 2026

Samburu County's pastoralist communities face interconnected challenges as drought, livestock disease and economic pressures threaten livelihoods, food security, nutrition and mental well-being. Findings from the Visibilize4ClimateAction project show that 78% of surveyed households experienced a climatic shock in the past 12 months, 75% were severely food insecure, and 24% of household heads and caregivers screened positive for post-traumatic stress disorder (PTSD). Women's nutrition and young children's diets are also a concern, with 51% of women of reproductive age underweight, BMI under 18.5.

Despite these challenges, Samburu has opportunities to strengthen community resilience. Communities prioritize native food trees and wild foods, which can help fill seasonal food gaps, while existing county climate policies and ward-level structures provide a foundation for action. Protecting pastoralist livelihoods, improving access to water and nutritious food, strengthening women's nutrition, and integrating mental health support into drought response are important priorities for building more resilient communities.

At a glance

69%

of households were hit by drought or reduced rain; 63% by livestock disease outbreaks
(n = 477 households)

75%

of households are severely food insecure, and 45% use crisis-level coping
(n = 477 households)

51%

of women of reproductive age are underweight, BMI under 18.5
(n = 160)

24%

of household heads and caregivers screened positive for PTSD; depression 23%, anxiety 15%
(n = 730)

58%

of households did nothing to prepare for future shocks
(n = 477 households)

84%

of households take over 30 minutes to fetch water; only 1% have water on their premises
(n = 477 households)

About Samburu and the data

The Visibilize4ClimateAction project, funded by Wellcome and led by the African Population and Health Research Center (APHRC), aims to make visible how climate change affects the nutrition and mental health of vulnerable people in East African drylands so that climate policy and practice change at scale.

The findings presented here focus on Samburu East, a **semi-arid** and agropastoral, with volatile rainfall. Livestock herding is the main livelihood for 67% of household heads and 59% of caregivers, and many households rely on petty trade for secondary income. 64% of household heads and 75% of caregivers have no formal schooling. The household survey covered **477 households with at least one child under 5** and their mothers, so the figures describe households with young children, not every household in the county. Data was collected between May and June 2025. Community voices come from **focus group discussions, in-depth interviews, oral history and 18 food tree portfolios** with over 340 participants in 6 villages (Lekiji, Embakasi, Kilitamany, Lkwasi, Sordo and Lodungokwe) as well as **key informant interviews** with county officials, implementing partners and local CBOs.

What we found

A. Drought and livestock disease are eroding the herd, the main store of wealth and food

- **78%** of households faced a climatic shock, mainly drought or reduced rain (69%); **71%** a biological shock, mainly livestock disease (63%); **91%** an economic shock, mainly higher food prices (90%); and 20% livestock theft.
- Drought brought reduced pasture (83%), milk loss (75%) and livestock deaths (67%). **80%** of households sold livestock.
- Households cut food consumption (87%) and bought food on credit (83%); 61% reported increased household debt. **58%** did nothing to prepare for future shocks.

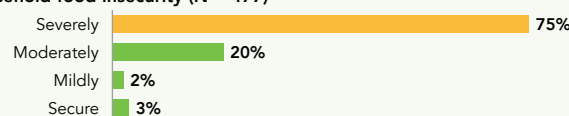
- The project's pathway map shows how losses stack up for herding households: 67% reported livestock deaths and 20% livestock theft, 51% said their animals had lost value, and 61% took on more debt. In the same survey, 24% screened positive for PTSD and 23% for depression. These problems occur together; the data do not show that one causes another.

B. Hunger is severe, women are undernourished and young children's diets need improvement

- **75%** of households are severely and 20% moderately food insecure; 45% use crisis-level coping and 48% stressed coping.
- Food production diversity is moderate (score 1.6) with 8 months of adequate food a year; only 18% of households grow trees and 35% collect wild foods. Higher production diversity is linked to better household and women's diets.
- **51%** of women of reproductive age are underweight and 14% of pregnant women have a mid-upper arm circumference under 21 cm; with only 35% of women achieving minimum dietary diversity.
- Child stunting is **21%**, underweight 18% and wasting 11%, high by WHO thresholds (n = 440 (stunting), 447 (underweight), 440 (wasting)); stunting is 26% in boys against 17% in girls. Among children aged 6–23 months (n = 206), all take milk but only **3%** achieve a minimum dietary diversity (22.8%), and 64.6% eat no fruit or vegetables.

Fig 1. Household food insecurity and coping strategies

Household food insecurity (N = 477)



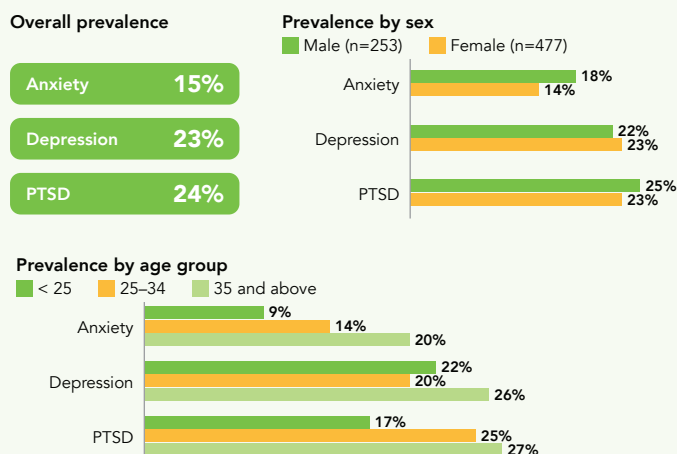
Household coping strategies (N = 477)



C. Post-traumatic stress and depression are the leading burdens, and drought exposure is associated with both

- PTSD 24%, depression 23% and anxiety 15% among household heads and caregivers (n = 730). People aged 35 and over carry the highest rates (PTSD 27%, depression 26%, anxiety 20%).
- Households that had exhausted food-based coping strategies had higher odds of **depression (4x)** and **PTSD (3x)**, adjusted for age, sex, marital status, household size, wealth, education and livelihood.

Fig 2. Mental health outcomes



D. Policy foundations are in place, and clearer land rights could unlock more tree planting

- Samburu has a county climate change act (2022) and an action plan with adaptation efforts emphasizing rangelands, water, livestock and natural-resource management. It also has functioning ward-level structures and community health volunteers. Integration of climate with agriculture, nutrition and policy coordination is **moderate**,

however integration of mental health in climate, agriculture and nutrition policies is **limited**.

- Most land is inherited or communally held, which creates uncertainty about rights to plant permanent trees: “When the land is communally owned it becomes a problem when one tries to plant trees.” (community member, Samburu)
- Samburu hosts 37 crops, 14 food trees and 47 wild food species, and communities prioritise native species, which fill lean-season gaps. Focus groups asked for training, quality seedlings and water harvesting.

Key indicators for Samburu

Indicator	Samburu (semi-arid)
Households with any climatic shock in the past 12 months	78%
Households severely food insecure	75%
Households doing nothing to prepare for future shocks	58%
Households taking over 30 minutes to fetch water	84%
Children under 5: wasting / stunting / underweight (n = 450)	11% / 21% / 18%
Women of reproductive age underweight, BMI under 18.5 (n = 160)	51%
Women reaching minimum dietary diversity	35%
Depression / anxiety / PTSD (n = 730)	23% / 15% / 24%
Food production diversity score; months of adequate food	1.6; 8 months

What this means for Samburu

1. **Link drought early warning to a psychosocial and food response.** Include mental health support in every drought response plan, as drought exposure here is associated with higher anxiety and PTSD. (Action for the County disaster response and health departments.)
2. **Protect pastoral livelihoods before households sell the herd.** With 80% selling livestock and 61% in debt, early food assistance, cash transfers and livestock insurance can prevent crisis coping and act as mental health support. (Action for the County and national government.)
3. **Prioritise women’s nutrition and young children’s diets.** Half of women are underweight and 3% of young children reach a minimum acceptable diet. Combine milk and livestock-based foods with vegetables, fruit and native food trees. (Action for the County health, nutrition and agriculture teams.)
4. **Strengthen mental health services.** Mental health integration is limited. Add screening to health services and use community health volunteers for psychosocial support, with attention to people aged 35 and over. (Action for the County health department.)
5. **Address water and land tenure.** Households spend over 30 minutes fetching water, and unclear rights on communal land discourage tree planting. There is an opportunity to fund water through the County Climate Change Fund and work with communities on land arrangements. (Action for the County water, lands and agriculture departments.)

Partners



Collaborators



For more information

Please contact Dr Alice Karanja: akaranja@aphrc.org
visibilize4climateaction.org

APHRC Headquarters

Manga Close, Kirawa Road, Nairobi, Kenya.
+254 715 731 887 | info@aphrc.org | www.aphrc.org