

Vulnerability of Drylands to Livelihood Security Shocks: What's Next?

This policy brief highlights the vulnerability of dryland livelihoods in the Karamoja cluster to recurrent shocks and crises. Focus is on the patterns of shocks, household-level coping strategies, livelihood security, and what these imply for strengthening resilience, social protection, and sustainable agropastoral development.

Background

Drylands, covering 41% of the global land area, are vital ecosystems supporting 50% of the world's livestock [1]. However, these regions are undergoing rapid transformation due to environmental and socioeconomic pressures. In northwestern Kenya and northeastern Uganda, particularly within the Karamoja cluster, communities grapple with recurring shocks such as droughts, floods, conflicts, and disease outbreaks [2]. These stressors, stemming from low adaptive capacity and heavy reliance on climate-sensitive agricultural practices, exacerbate existing vulnerabilities.

KEY MESSAGES

- Dryland households in the Karamoja cluster face frequent and overlapping livelihood shocks, with Uganda experiencing higher exposure and vulnerability than Kenya, especially in the wet season.
- Most households rely on counterproductive coping strategies such as reducing food consumption, selling assets, and taking loans, which undermine long-term livelihood security and resilience.
- More than three-quarters (77%) of households fall into the low livelihood security category, with vulnerability strongly linked to education, livestock ownership, group membership, access to credit, and exposure to repeated shocks.
- Building resilience requires shifting from crisis response to preventive systems that strengthen social protection, asset protection, financial inclusion, and integrated agropastoral livelihoods.



Multiple shocks and crises result in loss of income and destruction of assets, or both. Without social protection and with weak institutional support, households may use unhealthy ways to cope with reducing food consumption and selling productive assets. These strategies have the potential to disrupt accumulation of physical and human capital, thereby affecting their livelihoods and well-being in both the current and future periods

Recognizing the urgency of these challenges, both the governments of Kenya and Uganda have committed to building resilience through participation in global, regional, and national efforts.

Despite these commitments and institutional frameworks, the persistent threat of shocks underscores the need for more targeted and effective policy interventions. This policy brief aims to provide a picture of shocks and crises experienced in the Karamoja cluster, coping strategies adopted, and aspects of livelihood security [3,4].

Methods

The study was based on a comprehensive panel data household survey in which data were collected (n=698) by administering semi-structured questionnaires to capture information on socio-demographics, livelihoods, assets, incomes and expenditures, livelihood shocks and crises, nutrition, health and anthropometry [5]. It incorporated a specific section to capture details about various shocks that households experienced between June 2022 and February 2023. Another set of questions

focused on coping strategies households used to respond to shocks and crises.

Findings

A. Variation in shocks and crises by country and agricultural season

Uganda's drylands experience significantly more shocks than Kenya (Fig. 1), particularly in the wet season. Furthermore, all livestock-related shocks (livestock death or illness, drop in livestock sale price, livestock productivity loss, livestock raids, livestock input price rise), crop shocks (increase in agricultural input prices), and general shocks (lack of food and insecurity) are common in the wet season. Reduced crop harvests and crop pests were significantly higher in the dry season.

B. Variation in coping strategies adopted for the various shocks and crises

In the event of livestock death, households are more likely to sell livestock, draw on savings, or reduce food consumption. This also applies to livestock illness, drop in livestock sale prices, and livestock productivity loss. For a rise in livestock input prices, households are more likely to cope by selling livestock and seeking assistance or loans. The need to purchase livestock inputs like vaccines may drive these actions.

For reduced crop harvests, households are more likely to reduce food consumption, seek assistance or loans, and seek another job. Dry conditions increase the risk of crop failure, necessitating these

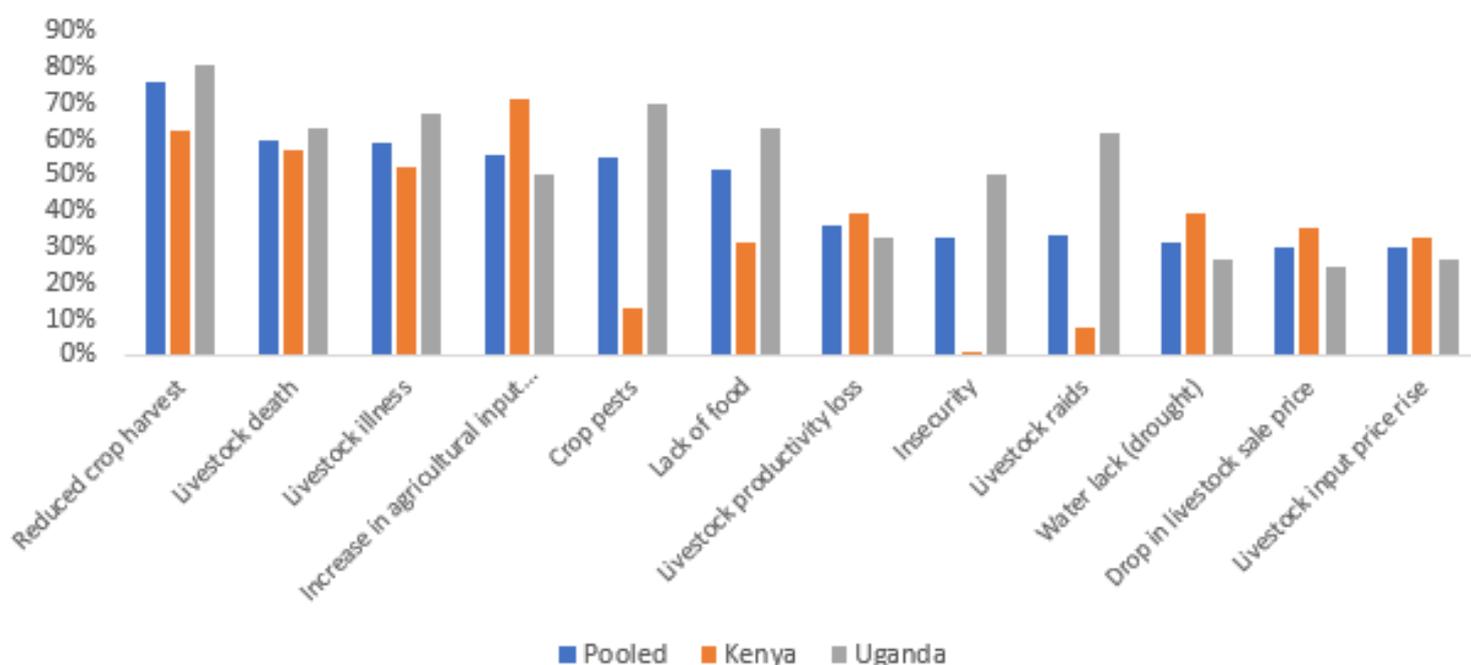


Figure 1. Shocks by country

coping strategies. In the event of crop pests, households are more likely to reduce food consumption and seek another job in the dry season due to the higher incidence of pests.

For water shortages, reducing food consumption, seeking assistance or loans, and drawing on savings are common strategies, similar to those used to cope with reduced crop harvests.

Finally, traditional conflict resolution mechanisms and keeping livestock in kraals are significant coping mechanisms in the event of insecurity.

C. The livelihood security index

The livelihood security index - developed specifically for this study - shows that households in the drylands of Uganda and Kenya are at precarious livelihood security levels, with 77% falling in the low security category. Households in Uganda have lower levels of food and habitat security compared to those in Kenya, whereas nutrition security is lower in Kenya.

D. Determinants of livelihood security

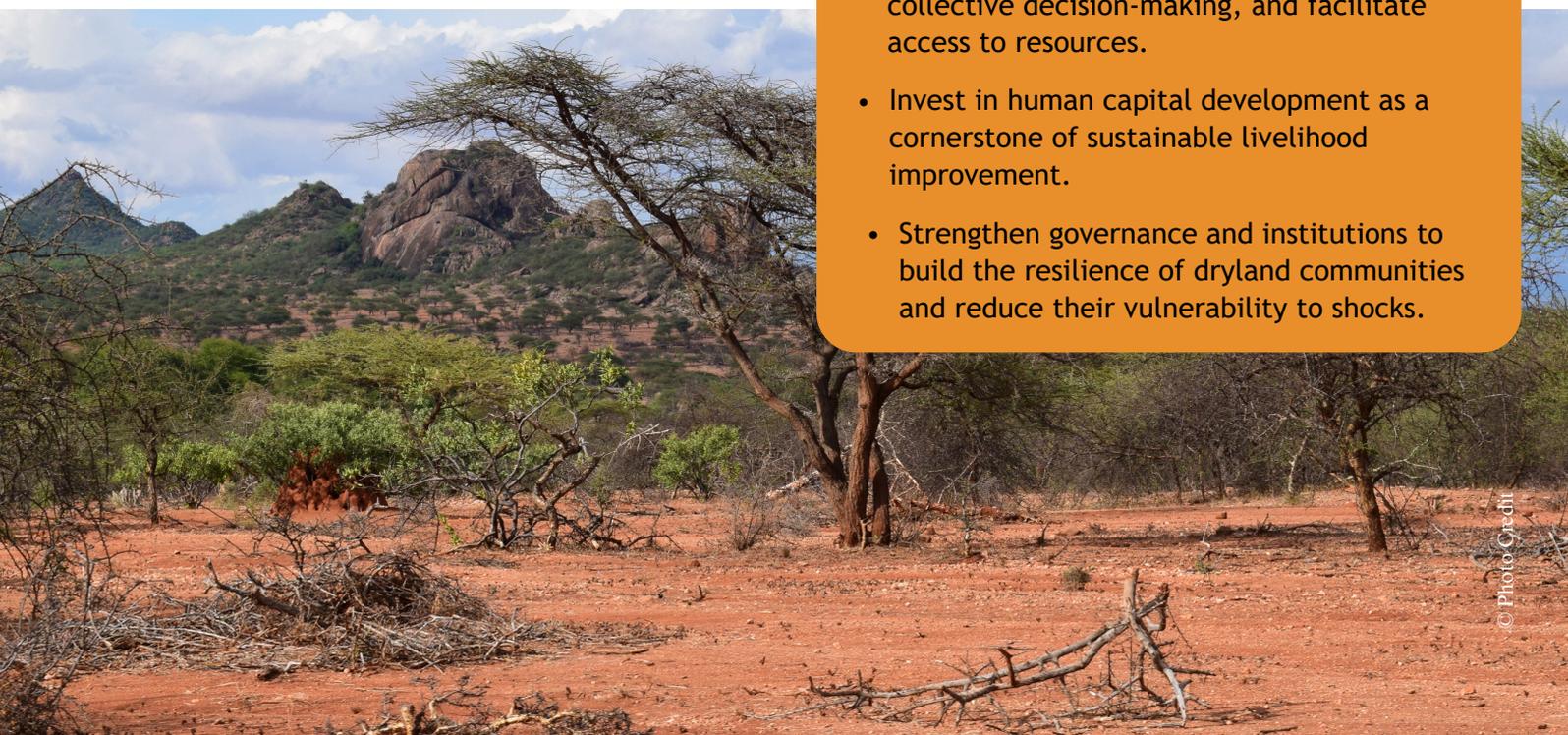
Households whose heads have higher levels of education, have more livestock, belong to a group and have access to credit, and those living in the agropastoral region are more likely to have higher livelihood security levels. Conversely, households with older heads, a higher dependency ratio, access to extension, those that experienced more shocks, and those in the drylands of Uganda are more likely to have lower livelihood security levels.

Conclusion

Integrated and shock-responsive livelihood strategies offer a promising pathway to strengthen livelihood security, reduce vulnerability, and build resilience in the drylands of the Karamoja cluster. By building on households' existing assets, social networks, and traditions of collective action, these strategies can reduce reliance on destructive coping mechanisms and support recovery from recurrent shocks. Policymakers and development partners must prioritize inclusive, community-driven, and institutionally anchored interventions to ensure sustainable impacts and long-term resilience in dryland communities.

ACTION POINTS

- Strengthen social protection programs to provide safety nets for households facing multiple livelihood shocks.
- Promote strategic asset protection through improved livestock management.
- Enhance financial inclusion for ex-ante risk management.
- Support integrated agropastoral resilience to maximize the economic returns from diversification.
- Support group membership and cooperatives by providing training in financial management, marketing, and negotiation skills to empower members, improve collective decision-making, and facilitate access to resources.
- Invest in human capital development as a cornerstone of sustainable livelihood improvement.
- Strengthen governance and institutions to build the resilience of dryland communities and reduce their vulnerability to shocks.



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