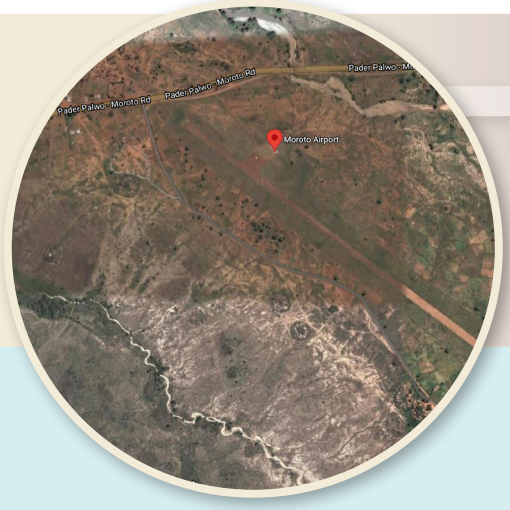
Mixed Migration Centre

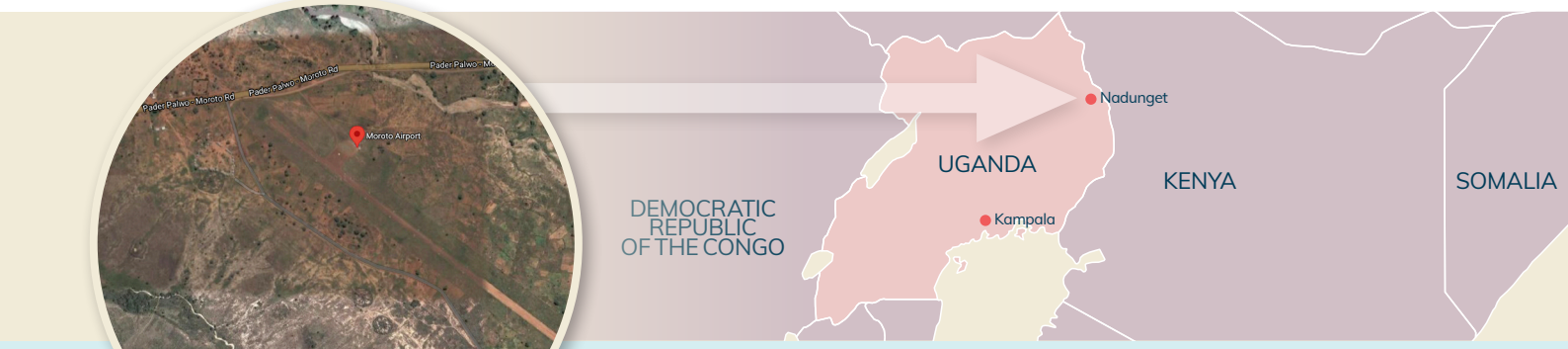
Climate and mobility case study

January 2023

The Mixed Migration Centre initially shared these case study reports with ACMI in November 2021, to inform the extensive consultation process and ACMI's final report.

Karamoja, Uganda: Nadunget





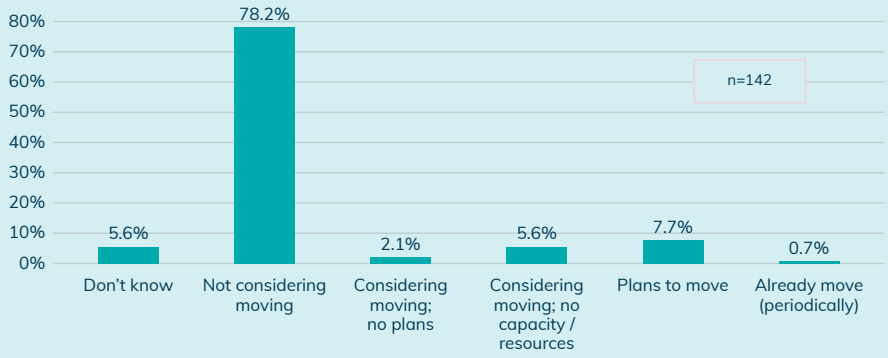
Map: © CNES/Airbus, Maxar Technologies, Google Maps 2021

A rural farming community subject to unpredictable rains and dryness.

Key findings

- Strong impact of dryness and lack of rains
- No urge to move away
- Insecurity may be hampering consideration of mobility
- Optimism about improved climatic conditions in the future
- Interviewees who moved away developed skills and improved their living conditions

Figure 1. Mobility intentions



Note on the data collection

A research team visited Nadunget sub-district in the northern region of Karamoja in August 2021. A total of 142 survey interviews were conducted in three small villages. Three focus group discussions were held with participants recruited from households in the sample area with: young people, women aged 25 years and older, and men aged 25 years and older. Ten in-depth interviews were conducted with people who experienced different mobility outcomes including: a man and woman from a household that was considering moving; a man and his daughter who were planning to move; a household where the man was planning to move and the woman stay behind; a man who moved and returned, and his brother who stayed; and a woman who moved away from the household and a man who stayed.

Global Centre for Climate Mobility · Africa Climate Mobility Initiative · United Nations Climate Change · African Union · UNDP · THE WORLD BANK IBRD • IDA · IOM UN MIGRATION

About this project

The Mixed Migration Centre (MMC) undertook this research with the aim of identifying how climate-related factors affect aspirations and capabilities to migrate, and migration outcomes. MMC developed a framework based on Carling's aspiration / ability model of decision-making in migration, as well as literature on adaptation, adaptive capacity and resilience (J. Carling, 2002, "Migration in the age of Involuntary Immobility: Theoretical Reflections and Cape Verdean Experiences", Journal of Ethnic and Migration Studies 28 (1): 5–42). This research considers the effects of climate-related environmental stressors on populations across Africa, and how they impact mobility outcomes, taking into account the full range of (im)mobilities, and the continuum from voluntary to forced movement.

Data collection took place in seven locations that were selected to cover a range of climate-related hazards across Africa, and various kinds of (im)mobilities. From July to September 2021, teams conducted research in Lagos, Nigeria; Cahama, Angola; Moroto, Uganda; Alexandria, Egypt; Chikwawa, Malawi; Beira, Mozambique; and Tatki, Senegal. In each site, more than 100 household surveys were conducted and three focus group discussions were held to better understand the impacts of climate-related hazards and environmental stressors on individuals, their attitudes and behaviour around mobility, and to identify linkages between the two. In-depth interviews were then conducted with five households that represent various kinds of 'migration outcomes'. Where possible, two representatives from each household were interviewed. These interviews aimed to find out more about experiences of mobility, connections to climate-related hazards, and the perceived outcomes of migration. See the synthesis report for more information on methodology.

MMC conducted this research as part of the Africa Climate Mobility Initiative (ACMI), with the results presented for discussion at ACMI Consultations, and informing the ACMI Report "African Shifts. The Africa Climate Mobility Report: Addressing Climate-Forced Migration and Displacement". MMC takes full responsibility for all research and findings presented in this study. The analysis and reflections in this study do not necessarily reflect the position of ACMI, the institutions leading ACMI, or any of the donors supporting the work of ACMI or MMC.

A note on terminology

MMC developed a list of key terms used throughout this project including:

- Climate change: A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer (IPCC (Undated) IPCC — Intergovernmental Panel on Climate Change).
- Climate-related environmental stressors: Perceived and experienced long-term meteorological impacts on the ecosystem that may affect the functioning of the biological system (e.g. NCBI (2016) National Center for Biotechnology Information).
- Climate-related hazards: Natural meteorological events that pose danger to humans and the environment. These events occur due to deficiencies or excess of precipitation, destructive winds and anomalous temperatures (based on WMO and UNFCC terminology around climate-related risks / hazards and extreme events).
- Resilience: The ability of individuals, households, communities, cities, institutions, systems, and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently, and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning and without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all (IOM (2019) Glossary on Migration).
- Vulnerability: The limited capacity to avoid, resist, cope with, or recover from harm. This limited capacity is the result of the unique interaction of individual, household, community, and structural characteristics and conditions (IOM (2019) Glossary on Migration.)

A note on limitations

This is a comparative project looking in-depth into people's perceptions across a range of locations. The scope and timeframe were limited, however, and additional expert knowledge of locations and populations could further enrich a more detailed understanding.

This is a pilot study. It is expected that the tools and methodology will be refined based on lessons learned. The study provides insights into perceptions of climate-related environmental stressors and adaptation that merit further exploration.

Karamoja and climate risks

Agropastoralist community of Nadunget.

Photo credit: © Faissol Kalungi, 2021

Moroto district is one of seven districts that form the Karamoja region. It is situated in mid-north eastern Uganda with an elevation of about 1,400m above sea level. Moroto has six sub-districts including Nadunget, which has a population of almost 45,000 people, representing about a third of the population of Moroto district.[1]

There are two main ethnic groups in the area: the Karamojong predominate in the rangelands, while the Tepeth primarily live in the mountainous areas of Moroto and Napak. People from both ethnicities generally practise subsistence crop production and animal rearing. Karamoja is the poorest sub-region in Uganda and is classified as one of the poorest areas in the world, with high rates of malnutrition. The population is largely dependent on cultivation and animal husbandry to provide livelihoods in an environment known for its harsh climatic variability.[2] Three-quarters (75%) of the sub-region's population is classified as destitute, according to the Oxford Poverty and Human Development Initiative's Multidimensional Poverty Index.[3]

The people of Moroto and Karamoja are experiencing a transition from long-standing nomadic lifestyles to an increasingly sedentary and farming lifestyle. This transition has been associated with cultural and social challenges that have been compounded by environmental stressors. Climate variability and change undermine already limited resources and development in Karamoja through recurring droughts, flash floods and prolonged dry spells.[4] While traditional pastoral livelihoods are well-adapted to Karamoja's dry and increasingly unpredictable climate, the growing dependence of people on agriculture and the adoption of more sedentary lifestyles has made communities more vulnerable to rainfall variability and dry spells. These are set to intensify due to the effects of climate change.[5] Other environment-related challenges include land degradation, conflict over natural resources, livestock diseases and pests, crop pests, and price shocks/fluctuations. The population of Karamoja also face economic, social, and public health challenges including high rates of youth unemployment, violent crime, and outbreaks of communicable disease.[6]

Historically, migration has been an important coping strategy for people in the Karamoja region. However, the nature of migration has changed in recent years with people: travelling further, leaving permanently rather than seasonally, seeking work with strangers rather than extended family and/or associates, and increases in the number of people moving to urban areas. Migration and remittances are reportedly playing an increasingly important role in supporting both urban and rural livelihoods across the region.[7] In recent years, child migration has become increasingly widespread.[8] However, the results of this survey suggest that migration was not a common phenomenon in the study area examined, perhaps due to specific characteristics of the context.

1 Government of Uganda (2021) Water Supply Atlas: Moroto District.
2 UNFPA (2018) Leaving no one behind in Karamoja.
3 Boucher Castel, L. (2016), Link Nutrition Causal Analysis: Moroto.
4 UNFPA (2018).
5 Mercy Corps (2016) Karamoja Strategic Resilience Assessment ; World Bank (2021) Climate Risk Country Profile: Uganda.
6 Mercy Corps (2016).
7 Mercy Corps (2016).
8 IOM (2014) 2012 Prevalence of Child Migration from Karamoja's Napak and Moroto Districts.

Conditions in Nadunget, Moroto

Study participants said that agriculture is not a sufficient source of livelihood.

Photo credit: © Faissol Kalungi, 2021

Primary research was conducted in three small rural communities (Loputiput, Langoleki and Lokilala) located 10km west of Moroto town (population of 14,000 people), where the Moroto District Administration is based. The Mount Moroto Forest Reserve conservation area lies to the east of Moroto town, and has a verdant and lush micro-climate. All other areas of Moroto, including those covered by this study, have a semi-arid climate. Inhabitants in the Nadunget sub-district practise agro-pastoralism, and have adopted increasingly sedentary lifestyles in recent decades.

Subsistence agriculture and pastoralism are increasingly falling short of providing a sufficient source of livelihood. As a result, different employment and income-generating patterns are developing. The main drivers of this broad shift are most likely changing rainfall patterns, insecurity associated with owning livestock, the prevalence of livestock disease, and water scarcity. While armed conflict in Karamoja has declined in recent years, study participants frequently referred to insecurity, including livestock theft and tensions with communities in surrounding areas. This insecurity was understood to affect living conditions and responses to climate hazards.

Population profile and perceptions

Profile of survey participants

142 survey respondents

Gender:
61% women; 39% men

Age:
72% aged 25-54 years

Ethnicity:
100% Karamojong

Religion:
99% Christian

Average household composition:
7 members; 2 financial contributors; 4 members under 18 years

Education level completed:
2% secondary/tertiary;
9% primary;
89% no schooling completed

Occupation(s):
92% agriculture of which 25% subsistence agriculture; 57% mining and quarrying; 4% unemployed

Main source of food:
24% all food from farming;
75% food from farming but can purchase food

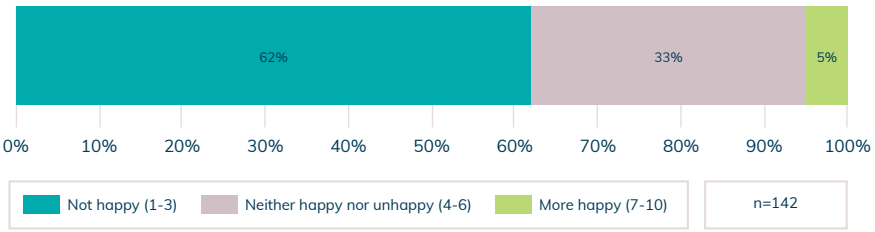
Remittances:
6% receive remittances

Most residents of the study area (60% of interviewees) were born in the area. Only 14% had lived in their present location for one to five years. Almost all people who were not born in the area came from communities elsewhere in the Karamoja region.

Most people had not completed any schooling, and most depend on agriculture and livestock for their livelihoods. Many also maintained secondary occupations. Female respondents typically had lower education levels than males. However, over half of female respondents reported being the main financial provider in their household. This was the proportion for any of the case studies conducted as part of this research.

People expressed a high level of dissatisfaction about their household's lifestyle and living conditions over the past 12 months (see Figure 2). Despite limited facilities, people reportedly being generally content about their level of access to health, education and other government services. Most respondents felt that the level of services provided had improved, and most understood that this would either stay the same or improve in the future. Female respondents expressed dissatisfaction with living conditions more frequently than males, and were more likely to report that they were doing worse than in the past.

Figure 2. How happy are you with your household's conditions in the past 12 months?



Note: Respondents are asked for a score between 1 and 10.

Common challenges

On the whole, women were more frequently dissatisfied with conditions than men, and more often thought they were doing worse than in the past. **Major challenges** identified by survey respondents and focus group discussion participants were **climate-related, including drought, insufficient pasture, low harvest yields, water scarcity, disease, locusts, deforestation, as well as unemployment. Insecurity and livestock theft were reported to be common problems, as well as housing damage** due to termites and the need to constantly maintain structures with increasingly scarce wood and grass. Corruption and the impact of Covid-19 were also mentioned as having a negative impact on living conditions. Respondents felt that these issues affected everyone in their community equally.

Some participants reported that there had been **deaths in the community** due to starvation in 2016 and 2018, and from conflict and disease. The proximity of the community to burial grounds was considered troublesome, with people believing that the land was cursed.

Despite a very low level of satisfaction with their current situation, respondents felt that many aspects of their situation would improve.

Impacts of climate-related events

"Last year the rains left our gardens even before germinating and even this year it has left our gardens when they are still flowering, meaning there is nothing we can get from this year either. ... The past years were fair."

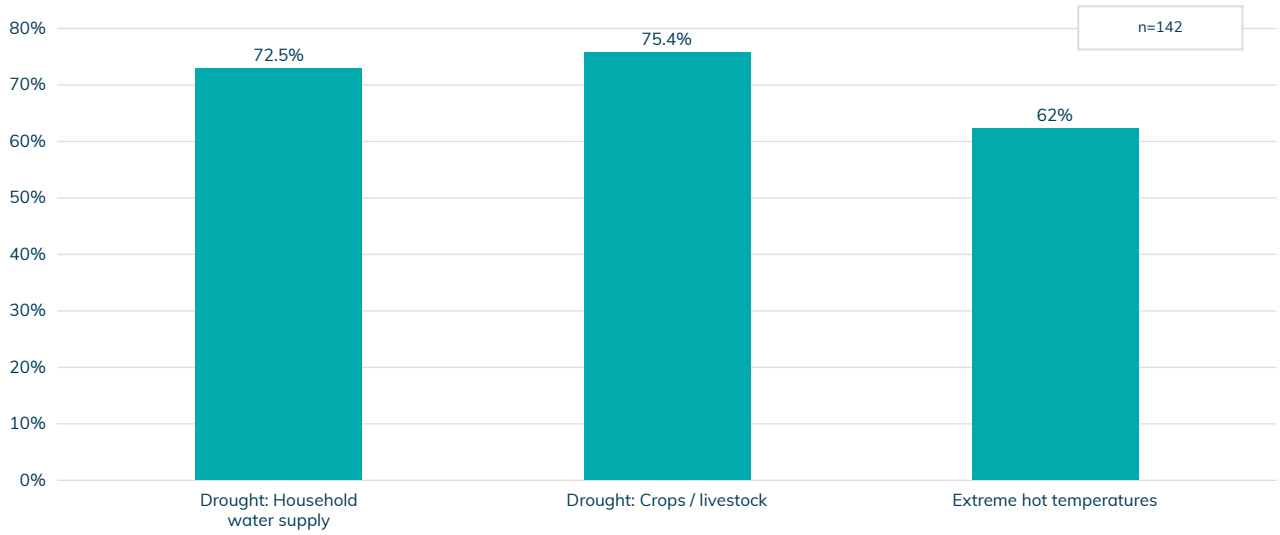
38-year-old woman

Secondary data suggests that the environment has represented a major challenge for communities in the Karamoja region both in the past and in the present. This was supported by the results of this survey. When asked to identify the main issues of concern, focus group discussion participants most frequently referred to environmental and climate-related issues, with many saying that problems had become progressively worse. Most focus group discussion and interview participants, mentioned drought, rain failure, harvests that were reduced or destroyed, and the lack of pasture or grass for roof thatching. The results relating to unpredictable rainfall and drought were particularly striking. Participants mentioned that drought, low yields, 'hot soil' and water scarcity all constituted major problems. Furthermore, some participants mentioned that the situation had worsened in recent years.

The majority of survey respondents reported experiencing multiple instances of drought, extreme heat, and unpredictable rains over the past decade (see Figures 3 and 4). Unpredictable rainfall is a feature of climate change in many areas.

People often discussed the failure of rains earlier in the year (2021), and the current drought affecting the region. Nearly all (99%) reported that the drought had negatively affected their households. Extremely hot temperatures and increasing temperatures were understood to negatively affect the region, but were considered less of a pressing issue. Female respondents brought up issues of drought and water shortages more frequently than male respondents.

Figure 3. Main climate-related events. Participants reporting 3 or more events in the last decade.



Note: These are the most common answers.

The different climate-related hazards mentioned were understood to have a similar impact on people including damage and loss of assets, undermining livelihoods and food security (especially with regard to unpredictable rains), and compounding health problems and stress (see Figure 5). There were fewer reported effects due to extremely hot and increasing temperatures.

Figure 4. Damage caused by unpredictable rains in the past decade

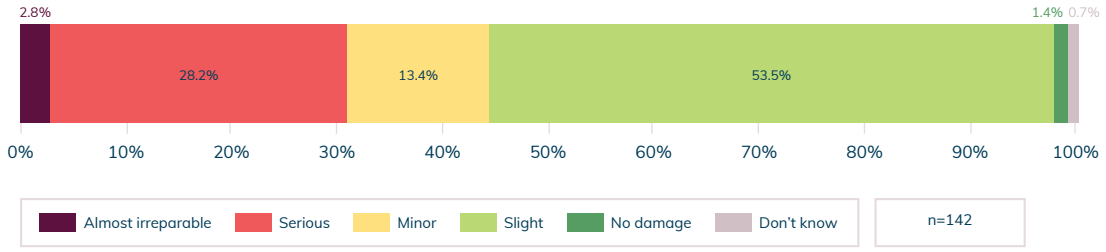
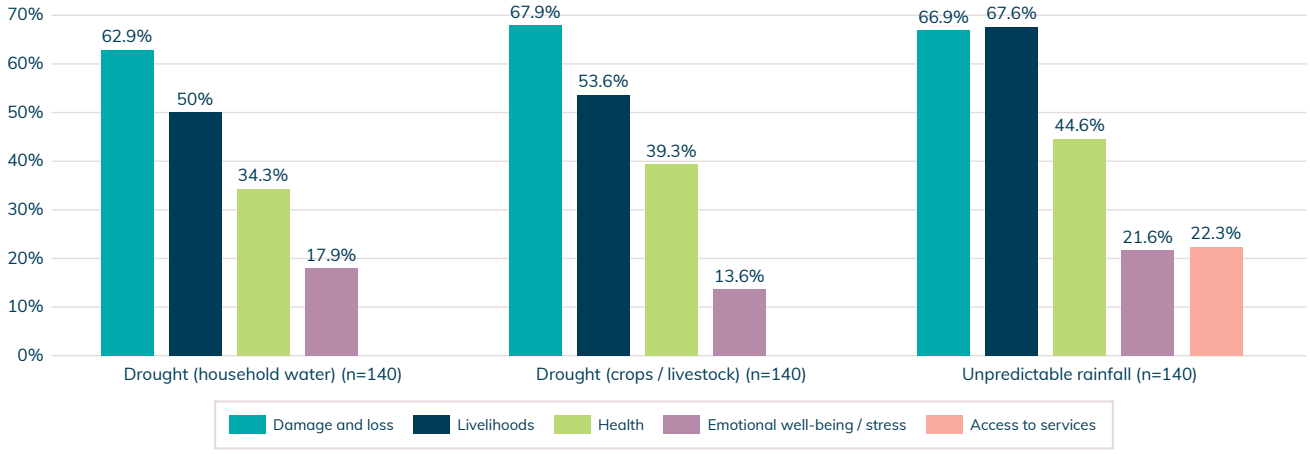


Figure 5. Impacts of main climate-related events



Note: These are the most common answers. Respondents can provide more than one answer.
Access to services was a common answer only as an impact of unpredictable rainfall

> *"What has caused this change in climate especially rain here in our community is the trees people keep on cutting down for charcoal and firewood."*
>
> **54-year-old man**

Drought and flooding, along with localized activities such as charcoal burning, firewood collection, the acquisition of construction materials and overgrazing have had a visible impact on the landscape. Some 61% of respondents considered that the degradation of land in recent years had negatively affected their household. Only 4% of survey respondents said that they found the state of land degradation was significant and/or irreparable. On the other hand, 34% reported that land degradation was a long-standing rather than a recent problem. During in-depth interviews, participants frequently mentioned **damage and removal of trees** due to charcoal production. People were increasingly engaging in this activity out of necessity, amid low harvest yields stemming from poor rains. Many people felt that the lack of rain led to deforestation; part of a self-perpetuating cycle of degradation.

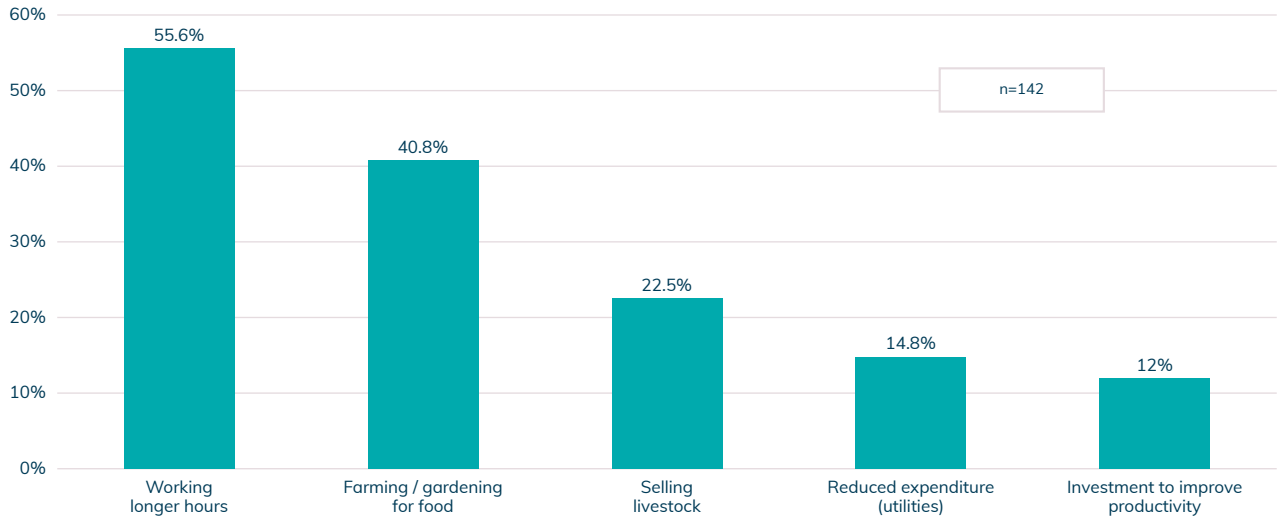
While environmental conditions are predicted to become increasingly challenging, people were generally optimistic about the future. Around 35% felt conditions relating to drought and rains would improve in the next five years; 29% felt the situation would be similar; and 16% felt that the situation would worsen.

Responses to climate-related impacts

There was almost unanimous recognition of the current negative effects of drought and unpredictable rains on people's livelihoods. Current adaptation measures were likely to respond, at least in part, to climate-related hazards. However, only 14% of participants identified a link between environmental factors and the adaptation strategies they implemented. The connection was rather made indirectly, with 75% reporting that they implemented changes and adopted adaptation strategies for economic reasons, or family or personal reasons (22%).

Despite a majority of those surveyed reporting being generally unhappy about their household situation and living conditions, 56% felt they could make changes to their lives in the next five years that would improve their conditions. Almost 40% felt they would improve their situation in the next five years, 40% felt that their situation would be similar, and 8% felt their situation would be worse in the next five years compared with the present.

Figure 6. What have you talked about doing to improve your situation?



Note: These are the most common answers. Participants can provide more than one answer.

The most frequently mentioned measures to improve living conditions were working longer hours and engaging in gardening to produce food (see Figure 6). Some 23% of respondents mentioned that selling livestock was a possibility, suggesting the consideration of negative coping mechanisms. Only 10% said that they would seek support from non-government organisations and the government to support their household; and even fewer (2%) mentioned seeking help from family or friends in the region or elsewhere. This may suggest that people in those networks also struggle financially.

Interviewees frequently mentioned the need to conduct secondary activities such as brewing and charcoal-making to generate additional income. An analysis of the shift in primary and secondary occupations from agro-pastoralism to other sources of livelihoods (e.g. casual labouring, quarrying, brewing, charcoal-manufacturing) may in itself represent a response to the effects of climate-related hazards. This incremental change in occupation patterns may not be perceived by the community as climate-related adaptation, however, there were strong indications that it represents a form of adaptation that further contributes to environmental damage (especially brewing and producing charcoal).

Mobility

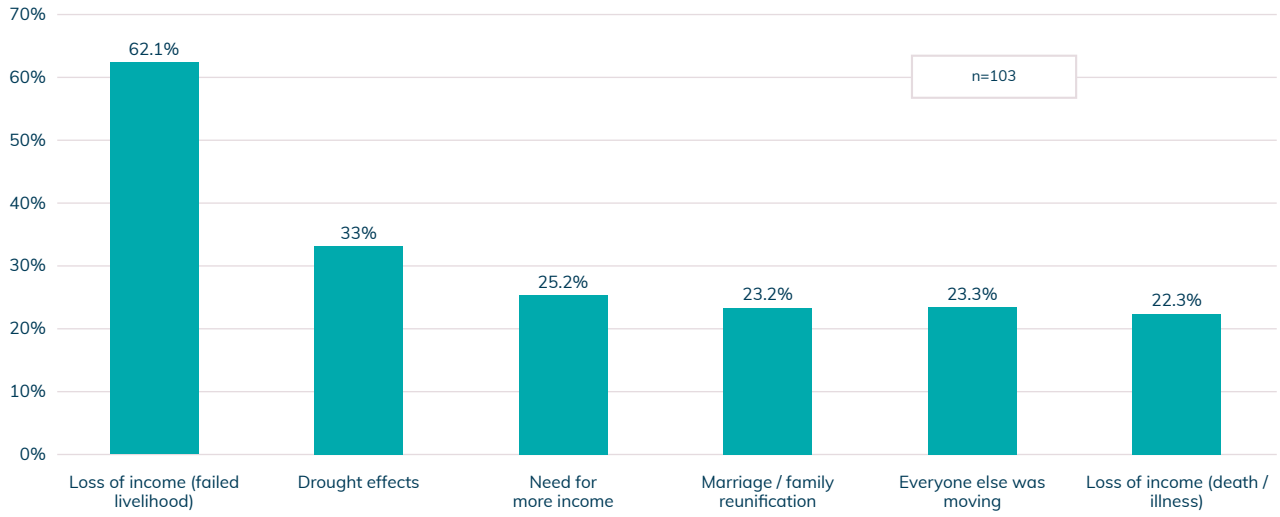
"Before, when there was peace between the people of Kotido, Moroto, Nakapiririt and Napak, people used to move freely."

Participant in women's focus group discussion

Mobility was unusual despite the challenges experienced. Only 12% of respondents mentioned that someone from their households had moved away. More than a quarter of those interviewed said it was "totally exceptional and unexpected that someone moves." Most people were not considering moving at all. This may be indicative of social and cultural attachments to the community and the land, but may also reflect concerns about movement out of the area including security. Focus group discussion and interview participants repeatedly mentioned that insecurity, conflict and livestock raiding were problems experienced in the area. Some spoke of not being able to take livestock to the market for sale due to a fear of having them stolen. However, only 3% of 103 respondents mentioned crime and violent conflict as reasons for people leaving the area.

Few reported that they aspired to move from the area despite the many challenges. This finding runs counter to reports that suggest migration from the Karamoja region has increased especially among children and youth demographics. Some 78% of respondents reported that they were not considering moving from the area (see Figure 1 on page 1). When asked about the circumstances under which they would leave, most said they would only leave if their survival was threatened.

Figure 7. Why do people move?



Note: These are the most common answers. Respondents can provide more than one answer.

Of the respondents who reported that people had moved from the area (103), the most frequently reported reasons for moving were livelihood needs, followed by drought (see Figure 7). The number of people leaving was relatively low. During in-depth interviews, participants also mentioned that people moved after deaths had occurred in the area.

Most respondents (83%) mentioned that people who left generally moved to another rural village in the same area. Participants in the in-depth interviews referred to people returning to ancestral lands. **There was little mention of people moving to urban areas.** Only 30% reported that whole households move, it was considered more normal for individuals or some members of a household to move, predominantly men and women under 25 years of age. Older people and children were more likely to stay. It was understood that those who move generally do not return, though some exceptions were mentioned. Approximately half of those who left send remittances irregularly and most of the rest do not send any remittances. This may reflect a weak remittance culture in these communities or indicate that people who move continue to face difficult economic conditions.

Interviews with individuals who had moved to neighbouring districts suggested that they continued to face challenging conditions. Nonetheless, they also provided some examples of mobility as a successful adaptation strategy: one woman was able to access a much larger client base for her bakery, and intended to bring family members to join her; and one man had been able to cultivate more varied and plentiful agricultural produce, and shared his new skills with family members when he returned to his village in Nadunget.

Impact of climate-related events and mobility

Environmental conditions in Karamoja have always been harsh and the population is used to adapting to such conditions. This reality shapes the perceptions of inhabitants about current conditions, as well as their aspiration and consideration of moving elsewhere. The recent deterioration in environmental conditions and high levels of dissatisfaction with living conditions do not appear to have contributed to an aspiration to move.

The communities surveyed can be described as voluntarily immobile, with some inhabitants possibly involuntarily immobile. People seem highly against the idea of moving, but questions remain about their capability to stay, and the degree to which staying can be described as voluntary. Fears of insecurity when moving beyond their home communities, for example, may mean that staying is a least-worst option, rather than a positive preference.

The rare movement that does occur is related, at least in part, to the negative effects of environmental hazards. Drought, flooding and high temperatures were identified as contributing reasons for people moving away, and while the main reason is linked to livelihoods and household economics, these are often closely related to, and affected by, the environment, rains, crop performance and livestock diseases.

For now, the majority of respondents felt the challenges they face, including those relating to the climate, will either remain the same or improve in the coming years. There were some indications that aspiration and/or the need to move may increase, and the shift towards sedentary lifestyles may slow or change, as respondents travel greater distances for work or to find pastures. However, it remains to be seen whether the propensity and interest in moving elsewhere will grow or not.

Summary

Harsh environmental conditions make agriculture and owning livestock in Nadunget challenging and potentially unsustainable. Scientific monitoring and modelling of environmental change in the Karamoja region predict that temperatures will increase, rainfall will become less predictable and more extreme, and extreme flooding events will occur as well as longer and more intense dry spells. The environmental conditions combined with low investment, underdeveloped infrastructure and limited opportunities for educational or skills advancement, mean that **short-term opportunities for improving livelihoods are not available** for a large number of people in the region.

Despite the situation, many felt that the situation was not on a long-term downward trajectory. Most people were largely positive and optimistic about the long-term environmental trajectory, despite scientific findings from other areas in the region suggesting otherwise. Environmental stressors – many related to climate change – were present and widely perceived to be having a negative impact, but these stressors were not driving an aspiration to move from the area.

The vast majority of survey respondents indicated that they were not considering movement. Very few indicated that they were considering moving but could not do so due to a lack of resources. However, further research is required to examine the degree to which this immobility is voluntary. People might not make plans or take action to leave due to: a lack of hope or knowledge about land and environmental conditions in other areas; a fear of insecurity; or connections to the Nadunget area. The study suggests that immobility is more affected by uncertainty about other locations, rather than people being content with their current location and situation. This stands in contrast to other case study locations where people were more confident about conditions in other places. Analysing the results using the aspiration/capability model of migration, in Nadunget people typically have **neither the capability nor aspiration to move, migration is not even considered; this can be characterised as acquiescent immobility**.

Given negative scientific predictions for the area, **the desire to stay, and optimism for the future represent a risk**. Does immobility in Nadunget represent resilience? Current living conditions are perceived as worsening, and coping mechanisms are unlikely to be sustainable. Could optimism be the result of resistance or denial that the changes are occurring, and the extent to which they will affect people's lives? Do people feel that they cannot do anything, creating a sense of helplessness or hopelessness? There is a risk that despite people's optimism and will to carry on, the population could be subject to emergency displacement. Or perhaps, given the lack of will to move or the lack of capability to move amid depleted coping mechanisms– there is a risk of an increasingly severe humanitarian emergency, creating **a population displaced in place.**[9]

Acknowledgements

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ACMI was launched in September 2021 by the African Union Commission, World Bank, United Nations Development Programme, United Nations Framework Convention on Climate Change, and the International Organization for Migration, to bring a sharp global focus on climate-forced displacement and migration on the continent. ACMI will support the African Union and African nations to harness the potential of mobility in the context of the climate crisis, and address climate-forced displacement and migration. ACMI's report was launched at COP27 in November 2022, and more information on ACMI's work so far can be found on its website https://africa.climatemobility.org/

9 Lubkemann, S. C. (2008). "Involuntary immobility: On a theoretical invisibility in forced migration studies." *Journal of Refugee Studies*, 21(4), 454-475. doi:10.1093/jrs/fen043