# Policy Briefing

## Climate Change and Migration

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# Migration as Adaptation: Addressing Rural–Urban Migration in Uganda

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## Executive summary

There is a need for better understanding of the role of climate change as a driver of rural–urban migration in Uganda, particularly to Kampala. Climate change migration in Uganda has yet to be explored in detail, and with limited data on internal migration trends it is difficult to anticipate the scale of potential increase. This policy briefing outlines the role of climate change in the country's migratory patterns, as well as the risks and vulnerabilities of migrants coming to Kampala. For example, it considers the movement of migrants to risk-prone areas and the challenges this migration poses to both their safety and the capital city's resource planning. Recommendations are aimed at developing the database needed to inform evidence-based interventions and advocating for the inclusion of migration as an adaptation strategy in Uganda's national and regional climate change planning.

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# Introduction

The World Bank estimates that Uganda's urban population will grow from 6 million in 2013 to 20 million in 2040.[1] As part of the East African Community, Uganda is home to 1.7 million foreign nationals[2] and known for hosting Africa's largest refugee population: 1 441 098 people at the time of writing.[3] One of the few studies to track internal migration in Uganda suggests that 65.9% of the internal migrants documented in the survey were found in urban areas, while women were the dominant social group.[4]

Currently, Kampala has a population of 1.5 million, with Uganda's highest rate of urbanisation (5%) and an estimated annual population growth rate of 3.9%.[5] The Uganda National Household Survey 2016/2017 shows Kampala has the highest percentage of people who had lived in another place (31%), suggesting that migration plays a major role in the city's rapid growth.[6]

Yet rural–urban migration (the movement from rural to urban areas) is largely overlooked in other migration trends.[7] People migrate from rural areas to Kampala for many reasons, chiefly economic opportunities in the country's economic hub. Evidence suggests that the stresses of climate change are also featuring increasingly as a key driver in this rural–urban migration.[8]

Climate change migration in Uganda has yet to be explored in detail and, with limited data on internal migration trends, it is difficult to anticipate the scale of potential increase. There are two main reasons for this.

Firstly, the complex relationship between climate change and migration makes it difficult to separate climate change as a driver of migration from its role in exacerbating other drivers of migration, primarily economic opportunities. It is also difficult to determine how different climate change processes affect migration. In 2016, 24 million people globally were displaced by climate-related disasters, including floods and typhoons.[9] This is easier to measure than how many people are forced to relocate as a result of slow-onset climate-related hazards such as drought or disruptions to seasonal rainfall.

1 World Bank, "Managing Rapid Urbanization Can Help Uganda Achieve Sustainable and Inclusive Growth", Press Release, March 3, 2015, https://www.worldbank.org/en/news/press-release/2015/03/03/managing-rapid-urbanization-can-help-uganda-achieve-sustainable-and-inclusive-growth.

2 Migration Data Portal, "International Migrant Stock, 2019", https://migrationdataportal.org/data?i=stock_abs_&t=2019&cm49=800.

3 UN Refugee Agency, Uganda Comprehensive Refugee Response Portal, https://data2.unhcr.org/en/country/uga.

4 International Organization for Migration, *Migration in Uganda: A Rapid Country Profile 2013* (Kampala: IOM, 2013).

5 Kampala Capital City Authority, *Strategic Plan 2014/15–2018/19* (Kampala: KCCA, 2014), 2.

6 Uganda Bureau of Statistics, Uganda National Household Survey 2016/2017 (Kampala: UBOS, 2018).

7 Migration Data Portal, "Urbanization and Migration", https://migrationdataportal.org/themes/urbanisation-et-migration.

8 IOM, Migration in Uganda.

9 Sarah Opitz Stapleton et al., *Climate Change, Migration and Displacement: The Need for a Risk-Informed And Coherent Approach* (Report, Overseas Development Institute, London, 2019).

Secondly, there are currently few data sources that capture rural–urban migration in Uganda entirely. The last census was conducted in 2014, and was characterised by poor administrative resources and digitisation shortcomings.[10] Uganda's census also does not capture internal migration. As a result, this policy briefing has had to rely on other data sources, primarily the National Household Survey and surveys conducted by the International Organization for Migration (IOM).

This policy briefing aims to establish the need for better data to support policy interventions that recognise climate change as a driver of rural–urban migration in Uganda. It shows that migration is an adaptation strategy for dealing with climate change. As such it is aimed at Ugandan policymakers to encourage greater coordination between policymaking bodies, given that the responsibility for migration, disaster management and urban planning sits with different authorities. Migration should be mainstreamed into climate change frameworks as an adaptation strategy in need of a coordinated response. This is crucial if the country is to meet the growing challenges posed by climate change and achieve its development objectives.

# Climate change as a driver

Like most East African countries, Uganda is affected by climate change-induced weather changes. The Fifth Intergovernmental Panel on Climate Change Assessment Report projected an increase in Uganda's average temperature by up to 2˚C over the next 50 years and 2.5˚C or more over the next 80 years.[11] Changes in rainfall patterns are also expected, with an anticipated increase in rainfall of 10–20% over most of the country and a decrease in the semi-arid cattle corridor.[12]

Climate change can diminish an individual or community's capacity to cope with other challenges, for example limited economic opportunity or food security.[13] Reduced rainfall and prolonged drought have profound impacts on the livelihoods of communities that rely on agriculture for subsistence and income.[14]

According to the Uganda National Household Survey 2016/2017, 16% of those surveyed had moved from a rural to an urban area.[15] When asked about their motivations to migrate, 40% of those participants cited financial reasons. The survey also highlighted the heavy reliance of rural communities on subsistence farming as their main source of income, at 53.9% in 2016–2017.[16] (See Table 1.)

10 IOM, *Migration in Uganda*.
11 Intergovernmental Panel on Climate Change, *Fifth Assessment Report: What's In It for Africa* (Geneva: IPCC, 2014).
12 Shuaib Lwasa, Paul Mukwaya and Hannington Sengendo, *Climate Change Assessment for Kampala, Uganda: A Summary* (Kampala: UN-Habitat, 2010).
13 Stapleton et al., *Climate Change, Migration and Displacement*.
14 IPCC, *Fifth Assessment Report*.
15 UBOS, *Uganda National Household Survey*.
16 UBOS, *Uganda National Household Survey*.

| TABLE 1 MAIN SOURCE OF EARNINGS FOR RURAL HOUSEHOLDS (%) IN UGANDA 2016/2017 | | | | |
|---|---|---|---|---|
| **Subsistence farming** | **Wage employment** | **Non-agricultural enterprises** | **Remittances** | **Other** |
| 53.9 | 19.6 | 15.9 | 6.3 | 4.3 |

Source: Uganda Bureau of Statistics, "Uganda National Household Survey 2016/2017", 2017, https://www.ubos.org/wp-content/uploads/publications/03_20182016_UNHS_FINAL_REPORT.pdf

Climate change continues to negatively impact rural livelihoods that mainly depend on rain-fed agriculture. As a result, affected communities may choose to migrate to Kampala, Uganda's economic hub, which contributes 28.6% of the national gross domestic product.[17]

Table 2 outlines Uganda's key climate change commitments and strategies. There is currently little connection between migration and climate change in these documents.

| TABLE 2 UGANDA'S CLIMATE CHANGE STRATEGIES | |
|---|---|
| **National Adaptation Programme of Action** | Outlines the pressure placed on urban resources and systems, including land, water and waste disposal, as a result of urban migration due to climate change.<br><br>Proposes useful land management strategies to reduce the impact of climate change on rural livelihoods, with the intention to ease migration to urban areas. There is no plan set out beyond this to manage migration to urban areas. |
| **National Adaptation Plan for the Agricultural Sector** | Explores the linkage between climate change and food availability; a relationship that influences rural–urban migration owing to impacts that affect production.<br><br>Proposes strategies to increase food production through reducing dependence on rain-fed agriculture, using methods such as irrigation farming and modern inputs to boost the adaptive capacity of the agricultural sector. |
| **Intended Nationally Determined Contributions to the Paris Agreement** | Highlights priority adaptation actions for key sectors, including agriculture and risk management for urban centres.<br><br>Does not cover measures to deal with rural–urban migration as an adaptation strategy. |
| **National Development Plan** | Outlines the aim to minimise unplanned urbanisation through local governance and management. |
| **Kampala Capital City Authority's Climate Change Action Plan** | Outlines the city's main adaptation strategies, including land use management.<br><br>The impact of migration on the city's resilience is not addressed explicitly. |
| **National Policy on Disaster Preparedness and Management** | Sets up a response framework to support affected communities in times of disasters, with administrative, legislative and technical measures, among others.<br><br>Draws little connection between climate change and migration/displacement. |

Sources: Government of Uganda, *Climate Change: Uganda National Adaptation Programmes of Action* (Kampala: UN Framework Convention on Climate Change, 2007), https://unfccc.int/resource/docs/napa/uga01.pdf; Government of Uganda, Ministry of Agriculture,

17 Xuantong Wang et al., "Estimation and Mapping of Sub-National GDP in Uganda Using NPP-VIIRS Imagery", *Remote Senses* 11, no. 2 (2019): 7.

Animal Industry and Fisheries, *National Adaptation Plan for the Agricultural Sector*, 2018, https://www.agriculture.go.ug/wp-content/uploads/2019/09/National-Adaptation-Plan-for-the-Agriculture-Sector.pdf; Government of Uganda, Ministry of Water and Environment, *Uganda's Intended Nationally Determined Contribution (INDC)* (Kampala: UNFCCC, 2015), https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Uganda%20First/INDC%20Uganda%20final%20%2014%20October%20%202015.pdf; Government of Uganda, *Second National Development Plan 2015/16–2019/20*, 2015, http://npa.go.ug/wp-content/uploads/NDPII-Final.pdf; Kampala Capital City Authority, *Kampala Capital City Authority's Climate Change Action Plan*, 2016, https://www.kcca.go.ug/uDocs/Kampala-Climate-Change-Action.pdf; Government of Uganda, Office of the Prime Minister, *The National Policy for Disaster Preparedness and Management*, 2010, https://www.ifrc.org/docs/IDRL/Disaster%20Policy%20for%20Uganda.pdf

The commitments outline key aspects of Uganda's approach to resilience planning and disaster preparedness, including land use management and adaptation in the agricultural sector. In order to holistically address the impacts of climate change it is important that migration is better integrated into Uganda's commitments so as to prepare for both the short-term and long-term impacts of people's movement as a result of climate change, alongside existing commitments.

# Migration as adaptation

The Intergovernmental Panel on Climate Change defines adaptation in human systems as 'the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities'.[18]

Migration has long been a coping mechanism in response to environmental crises.[19] However, approaching climate change-related migration through the lens of adaptation is useful in unpacking the complex relationship between the two, and developing holistic policy interventions that recognise that migration is an important component of a range of adaptation strategies in the face of climate change. It is also useful to understand that migration is a calculated strategy some individuals and communities choose, rather than the result of failure to adapt to climate change.[20]

The 'migration as adaptation' approach also differentiates between certain groups' and individuals' capacity to migrate in a way that helps to unpack some of the complexity surrounding climate change as a primary or secondary driver of migration.[21] The IOM outlines three key dimensions in understanding why migration is an adaptation strategy for some individuals and not others:

- exposure to climate impacts, often dependent on a given geographic location;
- sensitivity, or to what degree a given community is affected by climate change, for example as related to their source of income; and

18 IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (Cambridge: Cambridge University Press, 2012), 556.

19 Stapleton et al., *Climate Change, Migration and Displacement.*

20 Stapleton et al., *Climate Change, Migration and Displacement.*

21 Dina Ionesco and Mariam Traore Chazalnoel, "Migration as an Adaptation Strategy to Climate Change", IOM on Migration, https://weblog.iom.int/migration-adaptation-strategy-climate-change.

- the adaptive capacity of people and communities – that is, their ability to adjust to climate change, taking into account their pre-existing social, economic or political vulnerabilities.[22]

These dimensions combined will determine the level of vulnerability, or the capacity, of people and communities facing a changing climate.[23] This is a useful lens through which to understand rural–urban migration; namely, as an attempt by individuals to minimise the risk posed by climate change impacts to their livelihood or quality of life. This is a reality that policymakers need to acknowledge, and they have to develop strategies to either address or safely facilitate the phenomenon. People may be more likely to opt for migration as an adaptation strategy when government institutions and planning have failed to address the impact of hazards arising from these changes.[24] The most effective way to do so is to factor migration into climate change adaptation planning.

Bakewell's term 'sedentary bias' suggests that the dominant paradigm for thinking about migration for the last few decades has been largely negative and rooted in a colonial understanding of migration as dangerous and exploitative.[25] Bakewell argues that this negative view of migration – or 'sedentary bias' – permeates development theory and practice.[26] Understanding migration as an adaptation strategy challenges this hegemonic paradigm and complicates the policy dialogue by highlighting climate change migration as both a challenging phenomenon for the policy community and a practical response to a growing crisis.

Migration is one adaption measure in a range of others that, if managed effectively, can have a positive impact on reducing risk and vulnerability.[27]

# Urban vulnerabilities

As it currently stands, rural–urban migration to Kampala can cause social and economic conflict, particularly with tensions over resources and the areas in which migrants settle.[28] Migrants often end up settling in high-risk areas, including informal settlements that are prone to floods. In Kampala, flooding has been ranked as the greatest impact of climate change.[29] Kampala's hazard profile map shows that informal settlements popular with

22 Ionesco and Traore Chazalnoel, "Migration as an Adaptation Strategy".
23 Ionesco and Traore Chazalnoel, "Migration as an Adaptation Strategy".
24 Stapleton et al., *Climate Change, Migration and Displacement*.
25 Oliver Bakewell, "Keeping Them in Their Place: The Ambivalent Relationship Between Development and Migration in Africa" (Paper 8, International Migration Institute, Oxford, 2007).
26 Bakewell, "Keeping Them in Their Place".
27 Ionesco and Traore Chazalnoel, "Migration as an Adaptation Strategy".
28 Uganda Ministry of Water and Environment, *Climate Change Department, Climate Change: Uganda National Adaptation Programmes of Action* (Kampala: Government Printer, 2007).
29 Kampala Capital City Authority, *Kampala Multi-Hazard Risk and Vulnerability Profile* (Research Report, KCCA, Kampala, 2018).

migrants are located in flood-prone, lower-valley areas.[30] These areas were originally wetlands and have insufficient services such as drainage, waste management and sanitation owing to high population pressure, which further enhance the risk of flooding. Heavy rainfall caused by climate change has inflicted serious damages on these areas, such as loss of property and income, and worsened waterborne diseases such as typhoid and cholera.[31]

Therefore, rural–urban migration is a key component affecting Kampala's resources. These tensions make unchecked migration to the city a concern for urban planners and pose a challenge to the environmental sustainability of some of its metropolitan areas. As engines of growth, urban centres need to be carefully managed to promote national development and accommodate migrant communities.[32] Among the strategies that seek to reduce hazards in rural areas that might motivate individuals to migrate, it is necessary to enhance understanding of migration to Kampala from an administrative perspective to more effectively mitigate the risks that arise for both individuals and the city.

This requires national-level planning to mainstream rural–urban migration in national development plans by investing in adaptive capacity measures to reduce climate shocks on rural communities. This can be done by investing in irrigation, mechanisation and streamlining the route to market in Uganda's rural areas. These strategies need to be supplemented by a recognition that migration to urban areas is inevitable, particularly during the early years of such rural-based schemes. This requires urban planning authorities to incorporate rural–urban migration into strategy, balancing pressures on resources and land use with migrant vulnerability. Such integrated development planning should be a top consideration for national and urban authorities in their climate change strategies going forward.

# Recommendations

- Gather more data to understand rural–urban migration resulting from climate change in Uganda, using:
  - an impact severity/damage ranking system to evaluate the effects on people, community utilities and household-level livelihood, to predict migration patterns and identify possible interventions; and
  - a database for data from the ranking system to ensure long-term interventions gather information on rural–urban migration trends, thereby enhancing the capacity of areas receiving migrant communities and discouraging settlement in risk-prone areas.

30 KCCA, *Kampala Multi-Hazard Risk*.
31 Lwasa, Mukwaya and Sengendo, *Climate Change Assessment for Kampala*.
32 Lwasa, Mukwaya and Sengendo, *Climate Change Assessment for Kampala*.

- Increase knowledge and action around migration as an adaptation strategy to climate change through greater dialogue between responsible authorities, including the Office of the Prime Minister, Kampala Capital City Authority and the Ministry of Water and Environment, to ensure a coordinated response.
- Harmonise rural–urban migration with Kampala's urban development planning priorities to prevent migrants from settling in risk-prone areas and promote economic activity in line with Uganda's national development priorities.
- Integrate climate change migration and the vulnerability of climate change migrants into Uganda's National Policy for Disaster Preparedness and Management.

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**Cover image**

A view of Kampala on 20 July 2009 in Kampala, Uganda. (Franco Origlia/Getty Images)

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