

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.

NIGERIA

CAMEROON

Lagos, Nigeria: Ajegunle



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

An informal settlement subject to flooding due to rainfall and overflow of waterways, and occasional sea surges.

Key findings

GHANA

Many aspire to move from the area but few have done so.
 Almost half of survey participants would like to move, but feel they lack the required resources

Ibadan

Lagos

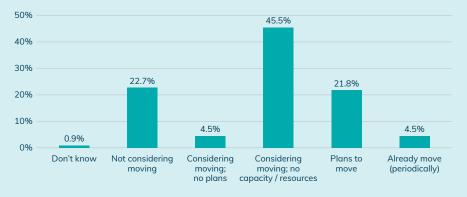
- Most people would prefer to move to another district of Lagos
- Flooding intensifies existing drivers of mobility

BENIN

TOGO

• Interviewees who moved from the area generally felt their situation had improved

Figure 1. Mobility intentions



Note on the data collection

A research team visited the Ajegunle suburb of Lagos in August 2021. A total of 110 survey interviews were conducted in an area close to a canal commonly affected by flooding (see map). Three focus group discussions were held with participants from households in the sample area with: young people, women aged 25 years and older, and members of the (minority) Igbo community. Ten in-depth interviews were conducted with people who experienced different mobility 'outcomes': two men who had left Ajegunle for other areas of Lagos; one woman who was planning to move; two women who were considering moving; and five people (three women and two men) who intended to stay, either because they preferred to stay or felt they had no choice.















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 <u>synthesis report</u> 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) <u>National Center for Biotechnology</u> 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.

Lagos and climate risks



Waste management exacerbates poor drainage in Ajegunle.

Photo credit: © Adewale Osinubi, 2021



Residents travel by water and land.

Photo credit: © Adewale Osinubi, 2021

Much of Nigeria's densely populated and increasingly urbanised southern coast is less than 6m above sea level. Lagos and the Niger Delta region are particularly low, with an easily flooded network of estuaries, rivers, creeks, and streams. Lagos is the most populous city in Nigeria and the second-largest city in Africa after Kinshasa. In 2021, the population of Lagos was 14.8 million, with 21.3 million people living in the greater metropolitan area. The population of Lagos grew at 3.5% in 2021, with similar growth rates predicted over the next 15 years.

Rising sea levels and ocean surges are understood to be the most pressing climate-related risks for Lagos city and across the state. However, rain-induced flooding and salt water intrusion occur more frequently, especially in communities adjacent to the coast and lagoons.³ These communities are home to some of the poorest in Lagos including people who have recently arrived from rural areas. Inhabitants in these informal settlements often live under threat of sudden forced eviction by the authorities.⁴

Settlements such as Ajegunle, Badia, Bariga and Ilaje are examples of flood-prone informal settlements that are home to hundreds of thousands of people. The flooding is caused by a combination of factors including high precipitation rates, low-lying land, and poor drainage exacerbated by inadequate waste management.⁵ Although the number of rainy days has decreased, the overall intensity of rainfall has increased, adding pressure on drainage systems.⁶

Flooding was reported in Lagos from 1947 onwards and became common in the 1970s; it now occurs on an annual basis. A survey by the Lagos State Government in 2016 found that 19% reported that their house had flooded in the past year; of which, over a third had experienced flooding five or more times during the same period. Residents reportedly perceived flooding as the second most important hazard in the city, after crime. A World Bank study in 2020 estimated that flood damage in Lagos State costs USD 3.992 billion per year, representing 4.1% of the gross domestic product of the state, and 10% nationally.

¹ Haider, H. (2019) Climate change in Nigeria: impacts and responses. K4D report.

² World Population Review – Lagos 2021.

³ Fashae, O.A. & Onafeso, O.D. (2011) <u>Impact of climate change on sea level rise in Lagos.</u> <u>Nigeria</u>, International Journal of Remote Sensing.

⁴ Adeshokan, O. (2020) Mapping Makoko: How data could help legitimize Nigeria's informal settlements. Devex. Also: Kazeem, Y. (2020) Africa's largest city has a habit of kicking out its poor to make room for the rich. Quartz Africa; Amnesty International (2017) The Human Cost of a Megacity. Forced Evictions of The Urban Poor In Lagos, Nigeria. Also, Hazeem, Y. (2017). Lagos is doubling down on kicking out thousands of waterfront slum dwellers. Quartz Africa.

⁵ Adelekan, I.O. (2010) <u>Vulnerability of poor urban coastal communities to flooding in Lagos.</u> <u>Nigeria. Environment and Urbanisation</u>.

⁶ Ede, A.N. et al. (2015) <u>Effects of Climate Change on Built Environment in Lagos, Nigeria</u>. International Journal of Engineering Technology and Computer Research (IJETCR).

⁷ Lucas, B. (2021) <u>Urban flood risks, impacts, and management in Nigeria</u>. K4D.

⁸ Lucas (2021) op.cit.

⁹ Lucas (2021) op.cit.

Conditions in Ajegunle

Ajegunle is an informal settlement near central Lagos, situated between two canals and below sea level. There are thought to be approximately 550,000 people living in the area, with new arrivals typically coming from rural areas or other poor areas of Lagos. ¹⁰ Housing is overcrowded, precarious, and often involves make-shift structures. Roads in the area are poorly maintained, drainage infrastructure is limited, and many residents do not have access to potable water or improved sanitation. The area is connected to the electricity grid, but power cuts are frequent and systematic. Services such as schools and medical facilities are meagre and do not meet the needs of the current population. More than half of the interviewees (56%) thought that education and health services in the area would improve in the coming years.

Inhabited areas of Ajegunle are prone to flooding triggered by rainfall and/or overflow from canals. Flood risk in the area is affected by the settlement of low-lying areas, poor urban management, changing rainfall patterns, erosion, and sea-level rise. The complexity of analysing the link between climate and mobility in Lagos, as elsewhere, is as much due to the multi-causal nature of the impacts of climate-related events, as the multiple drivers of mobility. Interviewees reported that household waste is often deposited on streets and dumped in canals, blocking drains and fostering general insanitary conditions. Some interviewees spoke of municipal waste collection vehicles being unable to access the community due to impassible roads.

According to residents, Ajegunle is a vibrant business hub. It has an active informal economy but also a reputation for gang violence, robbery, and prostitution. More than a third of those interviewed (36%) thought security would deteriorate in the next five years. Previously, many inhabitants were involved in fishing, but this has ceased due to high levels of pollution in the water and on land. Interviewees stated that the quality and quantity of fish stocks do not affect their livelihoods because fishing was no longer practised. Ajegunle is a typical low-income area. Many inhabitants reported that they live in the area, not out of choice, but rather because they have few alternatives, primarily due to economic constraints. Despite dire conditions, as illustrated below, residents' tolerance of their circumstances is high, as is their optimism for the future.

¹⁰ Quoted in Iruoma, K. (2017) <u>Ajegunle residents face health risk as water pollution rises</u>. Vanguard. Also in <u>Ajegunle: The good, the bad, the ugly</u>. Latest Nigeria News, Nigerian Newspapers, Politics. 31 October 2018.

¹¹ Iruoma, K. (2017) op.cit. Also more generally: Adeogun, I.(2020) How we learnt more about dangerous pollutants in Lagos lagoon, The

Population profile and perceptions

Profile of survey participants

110 survey respondents

Gender:

49% women; 51% men

Age

77% aged 25-54

Ethnicity:

50% Yoruba, 32% don't know, 8% Igbo, multiple others

Religion:

65% Christian, 33% Muslim

Average household composition:

5 members; 2 financial contributors; 2 members under 18 years

Education:

17% post-secondary/tertiary; 72% secondary; 10% primary; 1% none

Occupation (can be multiple):

33% construction, manufacturing and infrastructure; 29% trade and services; 20% hospitality; 4% unemployed

Dependence on agriculture:

7% food from farming, but also purchase food; 89% do not farm

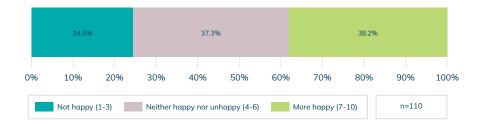
Remittances:

26% receive remittances

The majority of residents in Ajegunle moved to the area: 28% of interviewees were born in the area; 50% moved from other areas of Lagos state; and 22% moved from elsewhere in Nigeria. At least 74% of those interviewed had lived in Ajegunle for 10 years or more. A relatively low proportion among those who had moved to Ajegunle were from rural areas (11%) – most (87%) came from other urban situations.

In total, 67% of interviewees believed they had better access to health and education services compared to neighbouring communities in Lagos; only 12% perceived their access to be worse. Most people reported being relatively satisfied with their circumstances (see Figure 2). When asked whether their daily household situation had improved over the past five years, approximately a third reported that it had, a third mentioned that it was unchanged and a third that it was worse. Most respondents (78%) anticipated that their situation would improve over the next five years. There appears to be a high degree of optimism for the future (with **78% expecting to do better in the next five years**) even though a large proportion of those interviewed spoke of unemployment (71%), insufficient earnings/income (81%) and failing businesses (48%).

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



Common challenges

Almost all those interviewed identified crime and general insecurity as recurrent problems in Ajegunle. Almost half (47%) also identified "political unrest and riots" as problems experienced in the area. Additionally, almost half stated that **domestic violence** was occurring while 23% identified sexual and gender-based violence as a problem experienced. Over a third (35%) considered that all forms of violence in Ajegunle would get worse in coming years, and another third felt that the situation would improve.

The majority of respondents reported experiencing **unemployment** (71%), as indicated above, insufficient earnings/income (81%), and failing businesses (48%).

The main sources of potable water in the community are borewells and water purchased from water trucks. Access to water represents a source of consistent inconvenience and financial strain for people in the area. Almost half (45%) of interviewees reported that obtaining water had become more difficult in the past five years.

Forced evictions that occur in other informal settlements do not seem to be common in Ajegunle, with only 1.5% of interviewees mentioning that they knew of cases of forced eviction from homes in Ajegunle.

Impacts of climate-related events

In focus group discussions and in-depth interviews, participants were aware that climate change was affecting Nigeria but did not associate it with sea-level rise. The main perceived impact of climate change on life in Ajegunle was through increased costs for agricultural foodstuffs. A further examination of this aspect lies outside the focus of the present case study.

More than half of the interviewees reported that sea-level rise had caused significant damage in the community. Overflowing canals due to storm surges and sea-level rise were reported separately to flooding caused by precipitation combined with poor drainage. Almost all interviewees (85%) reported that flooding had caused loss or damage in the last 10 years; 30% reported more than five events of this nature had affected the community in the last 10 years. Perceptions of flooding trends over time varied: 20% believed that the flooding was worsening, 35% reported no change, and 45% reported improvement. Young people were more likely to report that the flooding situation was worsening, compared with older interviewees.

There was a sense that dealing with flooding was part of life, many also felt that they would be able to improve their situation in relation to flooding. Despite the flooding, some welcomed rains that were understood to decrease expenses associated with purchasing potable water.

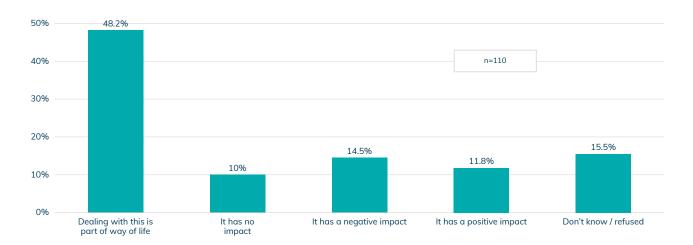


Figure 3. Impact of flooding on the household

In interviews and focus group discussions, the difficulties associated with flooding were frequently reported to have been exacerbated by widespread pollution and poor sanitation, which often resulted in the presence of human waste in floodwaters. Many of those interviewed spoke of the higher prevalence of mosquitoes after flooding events due to the increased presence of standing water. These factors were reflected in the survey results; **39% of respondents reported experiencing negative health impacts due to flooding**, and women reported more frequently talking about health impacts than men.

Overall, climate-related events were more frequently associated with negative impacts on inter-communal relations (including within households, with neighbours and within the community) than economic conditions. Male participants mentioned impacts on social relations more frequently than females. Almost a third of those affected by flooding (31%) reported experiencing negative impacts on emotional wellbeing and stress levels. In the focus group discussions and interviews, participants mentioned that flooding undermined their ability to travel to and from work, and attract or access customers. Some also spoke of flooding restricting their children's access to schools, or of the need to carry small children above the floodwaters including in their homes. Participants often linked these issues – especially hygiene and health impacts – to government negligence, saying that the situation would improve with appropriate government action. Furthermore, many mentioned that it was only the government that could take action to resolve these challenges

Responses to climate-related impacts

People in Ajegunle respond to their circumstances in various ways, however, most responses do not constitute adaptation to natural hazards or climate-related events. The majority of participants were more concerned with unemployment or insufficient income than flooding, which, by contrast, was considered to be part of everyday life. The most frequently cited approaches to dealing with challenges faced included investment and working longer hours (see Figure 4). Increased wealth was considered to be the most direct way to improve living standards and decrease vulnerability, including to environmental stressors such as flooding.

50% 43.6% 42.7% n=110 40% 32.7% 30% 19.1% 20% 16.4% 10% 0% Investment to improve Working New business Reduced expenditure Support from family /

Figure 4. What have you talked about doing to improve your situation?

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

"We will wait until the water goes down. There is nothing we can do."

Focus group discussion participant

The interview results suggested that people were exposed to flooding and that they implemented household-level adaptation measures. This included **constructing low walls or barriers** around their homes or front doors to prevent flood waters entering living areas. However, participants rarely portrayed these as adaptation measures.

Mobility

Most respondents were born outside the area and 54% mentioned that someone in their household had moved away from Ajegunle. There were different opinions expressed about moving from the area: 37% felt that it was normal and to be expected; and 37% felt it was exceptional and unexpected.

"It is money that will determine moving."

20%

10%

0%

Need for

additional income

Focus group discussion participant

As mentioned, 74% of those interviewed had been living in Ajegunle for 10 years or more with 43% living in the area for 20 years or more. Only 17% of respondents had arrived in the past five years. This suggests that many respondents had long-term roots in the area.

Participants mentioned that it was typically easier for women to find work and live outside Ajegunle. A higher proportion of female respondents were considering or planning to move from the area than male respondents; this was almost always connected to a desire to improve their situation and opportunities.

Access to better goods /

services

Flood

damage

People under 25 years of age were reportedly most likely to move from the area, while children and older adults were more likely to stay. A lack of financial resources to support moving was understood to be the main barrier against young people moving from the area. Most people who left Ajegunle have remained within Lagos, with only 3% leaving to move to another country. Most people who leave do not return.

Figure 5. Most common motivations to leave Ajegunle

Threat of

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

Livelihood opportunity

Respondents gave a variety of reasons for wanting to leave the area. These were primarily economic but security and flooding were also mentioned (see Figure 5). When asked about the reasons why specific people had left the area, flooding was reported slightly more often but less than income and livelihood opportunities, and marriage and family reunification. The research suggests a strong desire but low capacity to move: 46% said they were considering moving but were not able to (see Figure 1). More than a third (37%) of those considering to move reported that at least one person in their household urgently needed to move. Money was the primary motivator for movement from the area but also the primary barrier (mentioned by 98%). These are typical characteristics of an involuntarily immobile population.

Impact of climate-related events and mobility

Almost a third (29%) of respondents who were considering moving from the area mentioned flooding as a reason. This was more common among people who had experienced loss and damage due to flooding (71%), as well as among older respondents and youth (aged 18-24). On the other hand, focus group discussion participants were generally dismissive of the idea that climate factors represent a significant driver for mobility.

There was little evidence of a direct link between people being negatively affected by climate-related environmental stressors and mobility. More respondents were planning to move among those not affected by climate-related stressors, than among those who were (19% compared to 3%).

"The weather has nothing to do with people moving."

Youth focus group discussion participant

The focus group discussions and interviews indicated that a desire to move from the area to escape difficult living conditions sometimes exacerbated by environmental stressors, was common, even if the realisation of the aspiration was less so. There were some specific cases where flooding was cited as the primary motivation for moving. One man who worked as a driver moved to the town of Sagamu. He mentioned that flooding was the main reason for leaving, and that he was happy to live somewhere and not worry about his home being flooded. Another man who left for the Ago Palace district of Lagos said he now had "peace of mind" as flooding and insecurity were both less of a threat; he was keen to move again to a better area. A woman who was about to move to Ago Palace mentioned that her decision was not motivated by flooding, but was affected by client access, improved roads and water supply.

Summary

A key finding of this case study is that migration was not widely practised in Ajegunle as a form of adaptation to climate change. Although flooding affected residents, other demands such as income and livelihoods were considered more pressing. Nevertheless, flooding acted as a multiplier, exacerbating poor living and health conditions in the area. This study suggests that **environmental stressors and climate change were not the main drivers of displacement or mobility** from Ajegunle.

Despite scientific evidence that climate-related events including sea level rise and storm surges have worsened in Lagos and Nigeria, respondents did not feel that environmental conditions and in particular flooding had become worse in recent years. Respondents reported that climate change was not shifting or affecting their living situation significantly. Furthermore, almost half of respondents felt that the flooding situation would improve in the next five years. There was a note of optimism about the future: when specifically asked about the future impact of flooding and how it might affect their households in the next 5 years, around 34% felt it might become a 'bit' or 'much' worse, but 46% felt it would get a 'bit' or 'much better'. However, a high 40% felt 'tensions or conflict over natural resources' would get much worse within their community in the next 5 years.

A number of residents in Ajegunle do not actively consider moving, despite their circumstances, and some observed that this was because other places had no more to offer than Ajegunle. However, the study suggests that many in Ajegunle were **involuntarily immobile**: they did not have the capacity to move irrespective of urgency or poor living conditions, due to poverty. **Flooding compounds poverty and deprivation in the area including by limiting livelihood opportunities and exacerbating health issues.** It is unclear how the population of Ajegunle will respond to an increase in flooding or other environmental stressors.

Acknowledgements

This project was led by the Mixed Migration Centre (MMC). This case study was written by Chris Horwood of Ravenstone Consult, reviewed by Jane Linekar and Bram Frouws of MMC, and edited by Stephanie Matti. MMC would like to thank the research participants for their time and generosity in sharing their thoughts. We also extend our thanks to TRi Facts, Ravenstone Consult, and Dalberg Research and their field research teams, for their work on the design and implementation of this project. ACMI's technical advisory group members provided valuable advice and input, and our colleagues from Columbia University were particularly helpful. This project was generously supported by the Ford Foundation, the Mayors Migration Council, the Open Societies Foundation, Porticus, and the Danish Ministry of Foreign Affairs.

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/



