



CLIMATE & MOBILITY IN JAMAICA

A Case Study for the Greater Caribbean Climate Mobility Initiative

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Jamaica Snapshot

Study Locations

Negril, Westmoreland and Orange Bay, Hanover- Two bordering towns in an urban coastal area known as a tourist destination, and by extension, a destination for economic migrants.

Flagaman, St. Elizabeth- While technically on the coast, it is also considered inland and recognised for agricultural production and lifestyle. For this study it is referred to as a place of origin, from which people may leave due to climate impacts on farming.

Portland Cottage, Clarendon- A rural area situated on the coast and known for its fishing industry. For this study, it is understood as a place of origin, from which people may leave due to climate impacts on marine life.



Map 1. Map of Jamaica showing areas areas where research was conducted. Image credit: Samuel Hall 2024.

Key Findings

- 1** The three locations have different migration profiles: the majority of respondents in Flagaman (81%) and Portland Cottage (60%) have lived there all their lives, while most (56%) of residents surveyed% in Negril and Orange Bay were born elsewhere.
- 2** Across all locations, most respondents reported not wanting and not planning to move: 73% in Negril and Orange Bay, 82% in Portland Cottage, and 51% in Flagaman.
- 3** The vast majority of respondents had heard of climate change (88%) and more than half (53%) reported seeing the impacts of climate change in their lives. Higher awareness levels were seen in communities that took more proactive measures to adapt to climate change.
- 4** The vast majority of respondents had heard of climate change (88%) and more than half (53%) reported seeing the impacts of climate change in their lives. Higher awareness levels were seen in communities that took more proactive measures to adapt to climate change.
- 5** Adaptive capacity is shaped by financial security, income stability, community safety, and climate awareness, all of which influence how communities respond to climate mobility challenges.

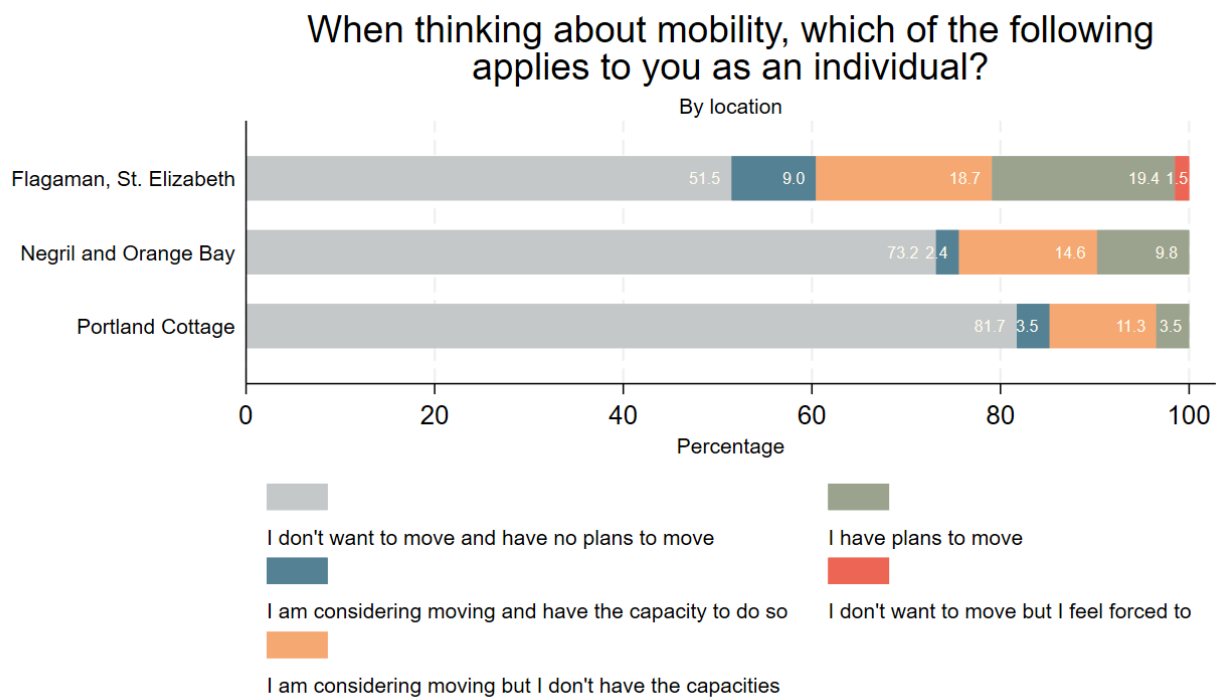


Figure 1. Mobility intentions and future plans



Image 1. Coast in the Greater Negril area, Jamaica. Photo credit: Lance Scott, 2024

Introduction

Project Background

Samuel Hall, a research organisation specialised in migration and displacement, undertook research to address the critical issue of climate-induced human mobility in the Greater Caribbean region, assessing in particular how climate-related factors influence people's decisions to migrate or to stay and their resulting lived experiences.

This project is part of the Greater Caribbean Climate Mobility Initiative (GCCMI), in partnership with the Global Centre for Climate Mobility (GCCM) and supported by the Association of Caribbean States (ACS). It aims to inform strategies for leveraging mobility to enhance economic integration and address climate-forced displacement in the region. The conceptual framework, based on Carling's ability/aspiration model developed for the African Climate Mobility Initiative (ACMI) was adapted for the GCCMI to focus on factors that shape people's vulnerability to climate change and their decision-making.

By collecting data in frontline communities affected by climate-related events, the findings from this field research complement the results of the Greater Caribbean Climate Mobility Model, which projects climate-induced movements up until 2050. Samuel Hall engaged with the modelling efforts during the simultaneous research phases, and both teams shared their results to ensure synergy and alignment. The research findings were presented during the GCCMI stakeholder consultations in May 2024 and will inform the GCCMI's Greater Caribbean Climate Mobility Report.

Methodology

Location	<p>Six Association of Caribbean States (ACS) member countries in the Greater Caribbean region, chosen for their diverse climate events and mobility patterns.</p> <ul style="list-style-type: none"> • Costa Rica • Suriname • Colombia • Jamaica • The Bahamas • Antigua & Barbuda <p>Three regions in Jamaica, selected to represent a diverse mix of urban and rural settings, both origin and destination areas for displaced populations, and regions experiencing a range of climate-related impacts.</p> <ul style="list-style-type: none"> • Negril and Orange Bay • Portland Cottage • Flagaman
Selection Criteria	Island country, key economic sectors affected by climate change (tourism, agriculture, manufacturing, fisheries), extreme weather events (storms) and slow onset events (sea level rise, droughts).
Key Phases	Desk review and research design, data collection and analysis, consultations and reporting (September 2023- September 2024).
Research Tools	In Jamaica, 297 household surveys, four focus group discussions, and two in-depth key informant interviews were conducted to examine the relationship between migration and climate, focusing on mobility features, climate change adaptations, and the impact on decision-making.

Further information on site selection, methodology, and regional findings can be found in the synthesis report.

Note on data collection and localisation

In March and April 2024, a local Jamaican research team led by Samuel Hall staff conducted fieldwork in the districts of Flagaman, St. Elizabeth, Negril and Orange Bay, and Portland Cottage. A total of 297 household surveys were conducted with community members and four focus group discussions were held with 26 participants from the sample area, youth, farmers, fishermen etc. In depth interviews were conducted with two key informants representing relevant institutions and civil society groups such as the Rotary Club Jamaica and the Commonwealth Youth Climate Change Network Jamaica.

The research in Jamaica was carried out as part of a regional study undertaken in six countries: Costa Rica, Colombia, Suriname, The Bahamas, Jamaica, and Antigua & Barbuda. The study aimed to understand the full range of mobility outcomes for populations in the Greater Caribbean region affected by climate change, examining the degree to which these outcomes are climate-related, how climate mobility interacts with other mobility dynamics, and the perceptions of those who have moved due to climate impacts. Throughout the data collection, Samuel Hall's team implemented a localisation approach, encouraging local researchers to lead the process and for communities to define the study's concepts themselves. A localised approach ensures that the research process is tailored to the specific context of the affected communities involved in the study.

Note on contextualisation

This study offers an in depth exploration of three selected communities in Jamaica, as Negril and Orange Bay represent one sample area. Given the limitations on timeframe and scope, the findings do not represent the perceptions of the entire communities, country, or the region as a whole. Rather, they provide a snapshot into the experiences and decision-making of individuals and households impacted by climate-related factors. Therefore, all findings should be contextualised to each specific location's dynamics and features. Additional fieldwork within different areas of each country would offer a more comprehensive view, and additional country case studies would provide a deeper comparison within the region.



Image 2. Local research team in Portland Cottage, Clarendon. Photo credit: Kevron Logan, 2024

Key terminology and concepts

Climate Change	“Long-term changes in the Earth’s climate that are warming the atmosphere, ocean and land. Climate change is affecting the balance of ecosystems that support life and biodiversity, and impacting health. It also causes more extreme weather events, such as more intense and/or frequent hurricanes, floods, heat waves, and droughts, and leads to sea level rise and coastal erosion as a result of ocean warming, melting of glaciers, and loss of ice sheets.” ¹
Climate Adaptation	“Actions that help reduce vulnerability to the current or expected impacts of climate change like weather extremes and natural disasters, sea-level rise, biodiversity loss, or food and water insecurity.” ²
Climate Resilience	“Resilience is the capacity of a community or environment to anticipate and manage dangerous climatic events and recover and transform after the ensuing shock, with minimal damage to societal wellbeing, economic activity, and the environment.” ³
Vulnerability	“The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to be affected by the impact of hazards.” ⁴

1 United Nations Development Programme (UNDP). “Climate Dictionary: An Everyday Guide to Climate Change.” <https://www.undp.org/iran/news/climate-dictionary-everyday-guide-climate-change>

2 UNDP. “Climate Dictionary: An Everyday Guide to Climate Change.”

3 UNDP. “Climate Dictionary: An Everyday Guide to Climate Change.”

4 United Nations Office for Disaster Risk Reduction (UNDRR). “Vulnerability.” <https://www.undrr.org/terminology/vulnerability>

Context & Profiles

Locations Profile: Climate Risks and Mobility Dynamics

Jamaica is increasingly affected by climate change, experiencing both extreme weather events and slow-onset events, which impact the country's economy and infrastructure. With a population of about 2,827,377 inhabitants,⁵ Jamaica faces high vulnerability, leading to forced displacement and homelessness in some cases.⁶

Over the last decade, the economic costs of climate disasters have been significant, representing around 7% of GDP, or \$120 billion USD, in 2018.⁷

Climate change threatens key economic sectors, namely tourism and transportation, which are highly vulnerable to both extreme weather events and slow-onset processes like sea level rise (SLR). According to the Center for International Earth Science Information Network (CIESIN), *"tourism assets and related infrastructure, such as Jamaica's airports (...), are especially vulnerable due to their coastal concentration."*⁸

5 The World Bank. "Population Estimates and Projections." <https://databank.worldbank.org/source/population-estimates-and-projections>

6 UNCTAD (2018), Climate Change Impacts on Coastal Transport Infrastructure in the Caribbean: Enhancing the Adaptive Capacity of Small Island Developing States (SIDS) - Jamaica: a case study

7 UNCTAD (2018), Climate Change Impacts on Coastal Transport Infrastructure in the Caribbean: Enhancing the Adaptive Capacity of Small Island Developing States (SIDS) - Jamaica: a case study; Global Forum on Migration and Displacement (2018), Climate Change and Human Mobility: the Case of Jamaica.

8 Centre for International Earth Science Information Network (2023), JCCMI Desk Review.

Agricultural livelihoods, like subsistence-level small-scale farming are also at risk due to droughts, increasing temperatures, and flooding, which create food insecurity risks.⁹

Jamaica is subjected to both rapid onset events, such as storms and hurricanes, and slow onset events like sea level rise and rising temperatures.¹⁰ Extreme weather events are relatively common in Jamaica, with five hurricanes recorded between 2002 and 2007.¹¹ These events have severe economic implications, with significant displacement resulting from hurricanes. For instance, Hurricane Matthew in 2016 led to around 11,000 people being internally displaced.¹² Flooding, reportedly often severe after hurricanes, poses a critical threat to those living in lowlands.¹³ The UNCTAD notes that, “the vulnerability of the island’s population and infrastructure to hurricanes and the associated flooding and wind damage cannot be overstated.”¹⁴

Jamaica is expected to witness a sea level rise of 0.43-67 metres by the year 2100. Although the overall frequency of hurricanes is expected to remain stable, the most intense storms (Category 4/5) are projected to increase by 80% over the next 80 years.¹⁵ Rising temperatures and droughts also threaten agricultural productivity. **Jamaica experienced the worst drought in over 30 years in 2014,** leading to bushfires and a 30% reduction in crop yields, devastating farming communities.¹⁶ However, this drought did not result in significant displacement; instead, it spurred innovative conservancy, land management, and water use practices.

Those most vulnerable to climate change in Jamaica include inhabitants of coastal areas, rural communities, and residents of low-lying areas prone to flooding.¹⁷ Some communities face heightened vulnerability as they fall into several of these categories simultaneously. Jamaica also confronts high emigration rates, particularly among educated individuals seeking better livelihood opportunities abroad. This migration stems from a combination of high unemployment rates, poverty, violence, and urban densification.¹⁸

These complex migration patterns have made it difficult to clearly identify the role of climate change in mobility dynamics— a gap that this study aims to help fill. Despite high mobility rates, little research has been conducted specifically on the role of climate in driving human mobility in Jamaica. The literature indicated voluntary immobility may be a key climate outcome in Jamaica, which was verified by this study’s field research and is further explained below.

9 Centre for International Earth Science Information Network (2023), GCCMI Desk Review.

10 Ibid.

11 Centre for International Earth Science Information Network (2023), GCCMI Desk Review

12 Internal Displacement Monitoring Centre (IDMC). “Country Profile Jamaica.” <https://www.internal-displacement.org/countries/jamaica>.

13 FGD17

14 Ibid.

15 UNCTAD (2018), Climate Change Impacts on Coastal Transport Infrastructure in the Caribbean: Enhancing the Adaptive Capacity of Small Island Developing States (SIDS) - Jamaica: a case study

16 UNDP (2021), Fighting for Survival: Four Small Islands on the Frontline for Climate Change.

17 Global Forum on Migration and Displacement (2018), Climate Change and Human Mobility: the Case of Jamaica. <https://www.gfmd.org/pfp/ppd/10918>.

18 UNCTAD (2018), Climate Change Impacts on Coastal Transport Infrastructure in the Caribbean: Enhancing the Adaptive Capacity of Small Island Developing States (SIDS) - Jamaica: a case study

Respondent profile: socioeconomic and migration characteristics

Respondents	297 Survey Respondents
Age	19-24 years old, Average age 43 Years, 34% Youth (18-34)
Gender	42% Women, 57% Men
Household Composition	Average 3 members, 41% Married or in Civil Union, 44% single
Decision Making	In total, 56% of the women identify as breadwinners, compared to 80% of men identifying as bread winners.
Education Level	Majority permanent jobs (more in Negril and Orange Bay) 26% Flagaman and 29% Portland Cottage have short term jobs, 15% seasonal jobs, 12% unemployed.
Housing	90% live in concrete housing in Negril, Orange Bay and Flagaman, 77% in Portland Cottage.
Employment	Majority permanent jobs (more in Negril and Orange Bay). 26% Flagaman and 29% Portland Cottage have short term jobs, 15% seasonal jobs, 12% unemployed.
Occupation	87% in Flagaman gain income from agriculture, fishing and herding, 93% work wage jobs in Negril and Orange Bay. Half in Portland Cottage and Flagaman rely on employee salaries, with some replying on remittances and 1 in 3 on family run businesses.
Remittances	52% Portland Cottage, 10% Flagaman, 10% Negril and Orange Bay.
Government Pensions	10% Income provider

Migration profile

Analysing the migration backgrounds of respondents, which includes any experience of human mobility whether local, internal, or international, reveals significant differences among the three locations.

In terms of movement experience, 19% of all respondents in Flagaman, 40% in Portland Cottage and 56% in Negril and Orange Bay have been born elsewhere. Negril and Orange Bay, in particular, have a larger migrant population, including internal migrants, with nearly 1 in 5 (17%) having lived there for only five years or less.

When examining migration patterns, half of the respondents who moved did so alone (51%), while 30% moved with part of their household and 11% with their entire household. In the Negril and Orange Bay area, a striking 82% of respondents moved alone, a much higher rate compared to Flagaman (50%) and Portland Cottage (35%). **This trend is likely tied to the predominantly economic and work-related motivations driving migration to Negril and Orange Bay, where nearly 8 in 10 respondents cited economic or job-related reasons for leaving their origin communities.** The tourism industry in Negril, in particular, attracts many individuals seeking employment, leading to higher rates of migration and a significant number of people relocating alone. In contrast, in Flagaman and Portland Cottage, migration was more often driven by family-related reasons (Figure 2).

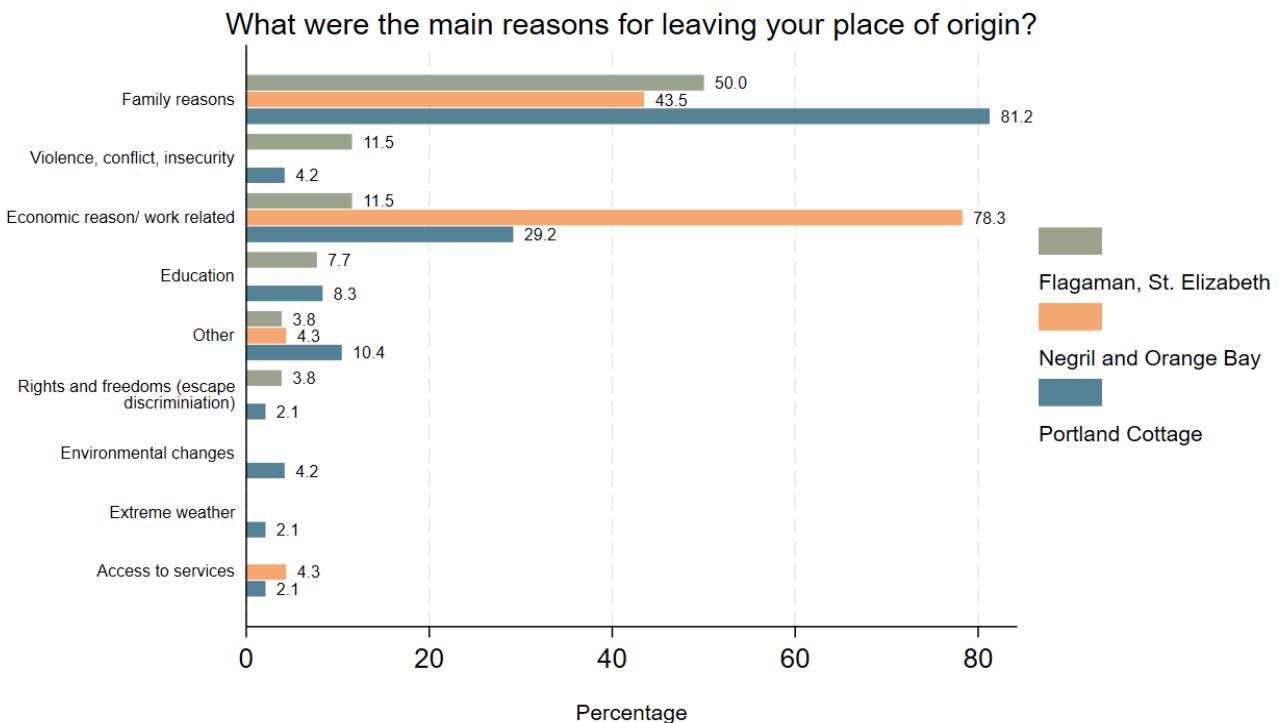


Figure 2. Reasons for leaving community of origin

These differing migration patterns also influence how migration is perceived across these communities. In Negril and Orange Bay, where migration is closely linked to the tourism sector and employment opportunities, it is common for individuals to relocate alone in pursuit of financial stability. This has resulted in a larger migrant population, with 56% of respondents having been born elsewhere and 17% having lived in the area for five years or less. Consequently, migration in these areas may be viewed more favourably as a necessary step toward economic advancement. Conversely, in Flagaman and Portland Cottage, where migration is often driven by family connections, the perception of migration might be more nuanced, with a stronger focus on maintaining social ties and community cohesion.

Household profile

Adaptive capacity varies across regions and factors. A key objective of this study is to understand the capacity of individuals and households to respond to climate change impacts, including their ability to relocate if needed or desired. While most respondents surveyed did not want to relocate (65%), the second most frequent situation was wanting to move but not having the capacities to do so, reported by 15% of all respondents.

Most respondents in Jamaica reported feeling secure in their income-generating activities, with 68% confident they could continue their current work as long as they desired.

Notably, more respondents in Negril and Orange Bay felt secure (90%) compared to those in Flagaman (72%) and Portland Cottage (55%). This disparity is likely linked to the higher prevalence of informal self-employment in Flagaman and Portland Cottage, which offers less long-term security, and the higher prevalence of employment from tourism in Negril.

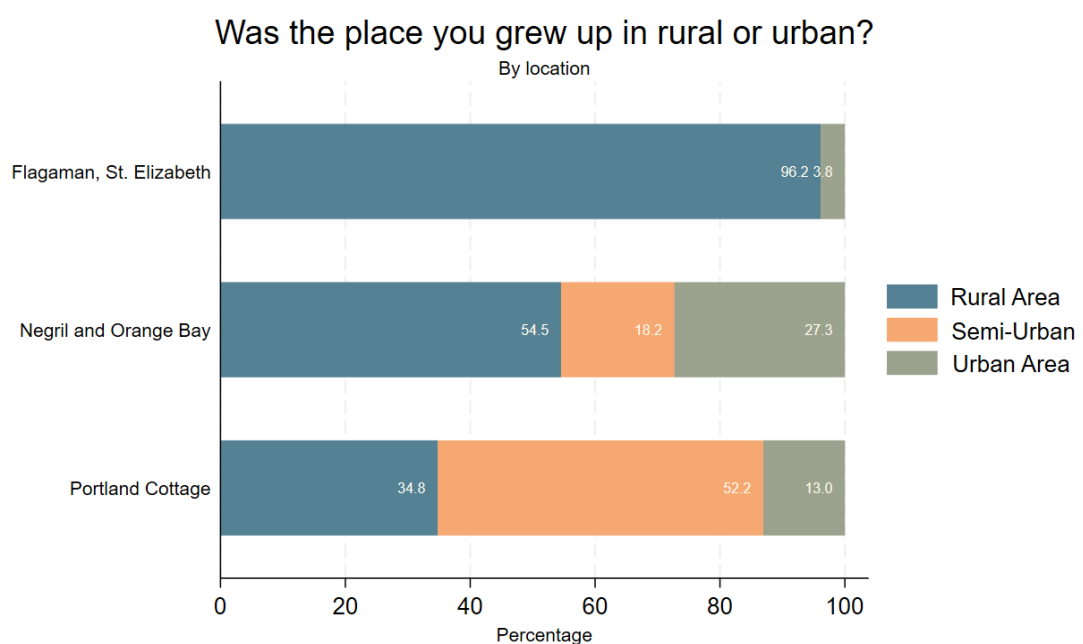


Figure 3. Place of origin

Rural backgrounds shape homeownership strategies. Nearly all respondents who have not lived all their lives in Flagaman grew up in rural locations (96%), compared to most in Negril and Orange Bay (55%) and only 35% in Portland Cottage. In Portland Cottage, around half of respondents grew up in semi-urban locations. Three in 10 respondents who moved to Negril and Orange Bay grew up in urban settings (Figure 3). Respondents from rural areas may be more familiar with economic and environmental challenges, influencing their approach to home ownership. In contrast, those from urban backgrounds might have different strategies and expectations, especially in dynamic areas like Negril.

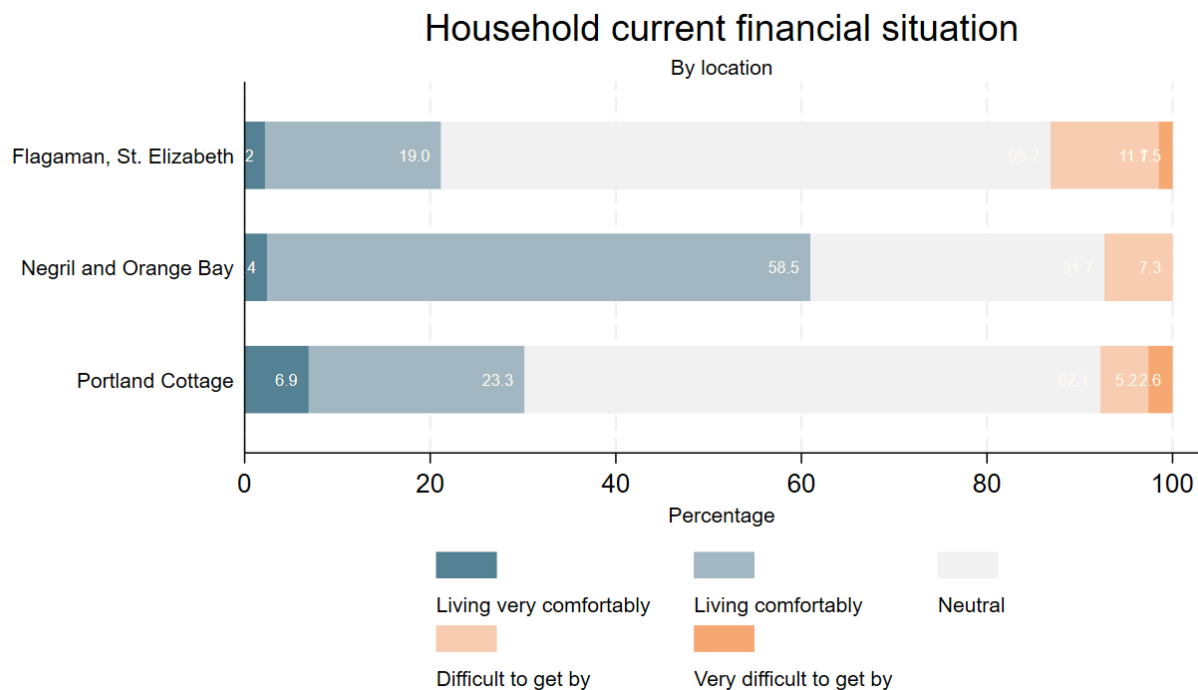


Figure 4. Financial Situation

Figure 4 shows a majority of respondents reported either living comfortably or described their financial situation as neutral, with few finding it financially difficult to get by. **These responses indicate a moderate level of financial security across the sample.**

The high rate of home ownership among respondents—4 in 5 living in owned houses—indicates strong community stability, especially in rural and semi-urban areas. This stability provides a financial buffer, enhancing households' ability to adapt to economic, environmental, and social changes. However, the disparity between migrants and non-migrants in home ownership—where 25% of migrants were more likely to live in rented housing compared to just 7% of non-migrants—reveals potential vulnerabilities among the migrant population (Figure 5). Migrants, especially those in rented accommodations, may have less capacity to adapt to changes, given their lower security of tenure and limited ability to modify their living conditions. **Ultimately, homeownership boosts stability, but migrants face vulnerability.**

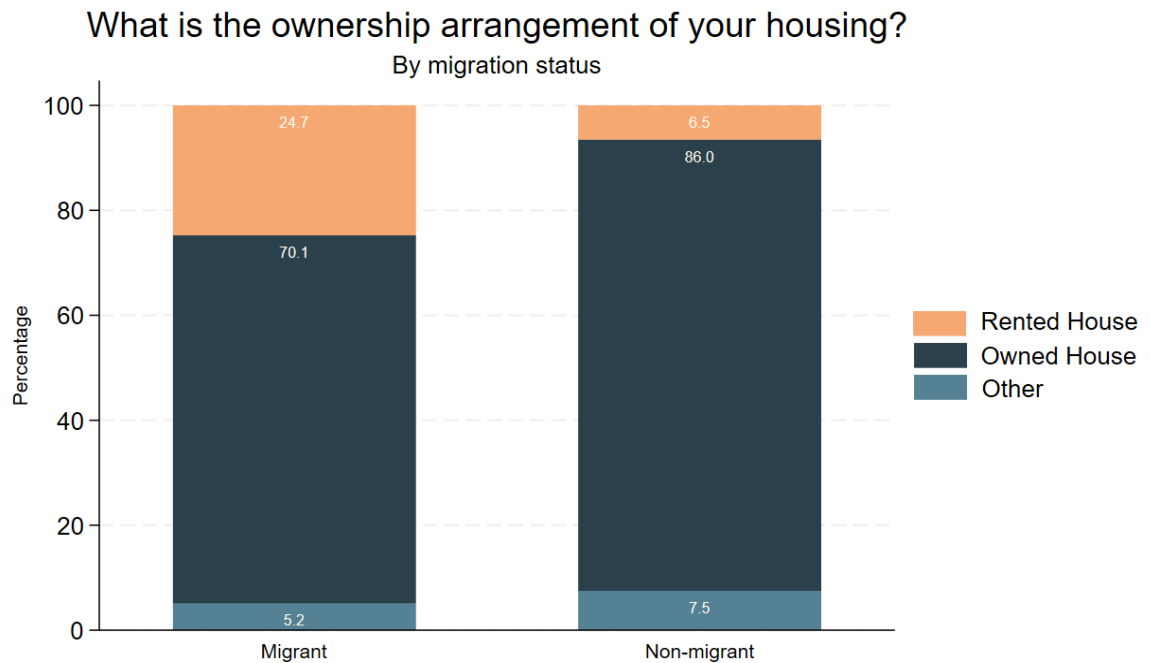


Figure 5: Housing ownership arrangement (migrant v non-migrant)

Most respondents report stable income sources. Regarding income stability, 67% of respondents reported having either 'always stable and predictable' or 'mostly stable and predictable' income (Figure 6). There were no observable differences between migrant and non-migrant respondents. A notable 15% of respondents indicated they relied on seasonal jobs for income, highlighting the role of seasonal work in their economic strategies, and by extension the demand for economic migration. In Flagaman and Portland Cottage, around 1 in 5 respondents had household members who regularly worked away, compared to 30% in Negril.

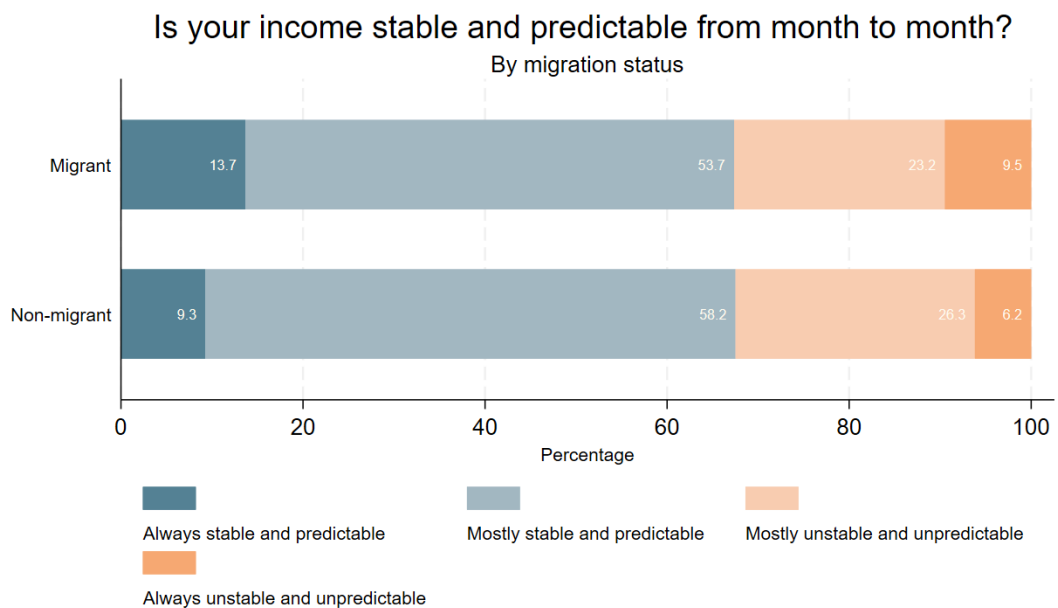


Figure 6: Household income stability and predictability (migrant v non-migrant)

Community support and safety are crucial for resilience and adaptive capacity during climate events in Jamaica. Most respondents felt safe walking the streets at night, but women in Flagaman, Negril, and Orange Bay reported feeling less safe than men, highlighting a gender disparity in perceived safety. Additionally, the limited availability of health facilities in Portland Cottage undermines community health and resilience. In contrast, Negril, being more urban and a tourist centre, benefits from better access to health facilities and a higher ratio of doctors. This urban-rural disparity underscores the greater challenges faced by rural areas like Portland Cottage and Flagaman in building resilience and accessing essential services.

Effective climate adaptation also hinges on climate change awareness. In Negril and Orange Bay, only 12% of respondents felt well-informed about climate change, while Portland Cottage had the highest level of informedness at 47%. Notably, respondents born elsewhere tend to be better informed than those born locally, suggesting that previous experience of migration (possibly influenced by climate) and other contexts may influence climate knowledge. Effectively, migration experience enhances climate change awareness.

Overall, the profiles and responses observed throughout data collection in Jamaica suggest adaptive capacity varies significantly and is shaped by factors such as financial security, income stability, community safety, and climate change awareness. These elements collectively impact the community's ability to effectively respond to climate mobility challenges.



Image 4. Household survey in Portland Cottage, Clarendon. Photo credit: Lance Scott, 2024.



Climate-related Challenges & Impacts

Climate Challenges and Vulnerabilities

Jamaica faces a range of climate challenges, including water insecurity, agricultural threats, tourism sector vulnerabilities, and health risks. These challenges have significant impacts on communities, exacerbating existing vulnerabilities and creating new ones.

Around half of all respondents in Flagaman and Portland Cottage reported seeing the impact of climate change in their lives, with even higher rates in Negril and Orange Bay (73%). About 20% of respondents were unsure about the effects of climate change on their lives, reflecting the complexity of linking personal experiences to broader climate processes. **The impacts described by participants are therefore informed by their awareness and perception of climate change as a factor.**

Climate-related impacts

Climate change awareness is widespread among respondents. When analysing the awareness levels and perception of climate change, the vast majority of respondents (88%) have heard of climate change, with the highest awareness in Flagaman (94%) and Portland Cottage (93%), compared to 80% in Negril and Orange Bay. There were no significant gender differences in awareness, but those born elsewhere were more likely to be aware of climate change (91%) than those born in sampled locations (83%). This suggests that migrants may have greater exposure to climate change information. Media (69%), word of mouth (55%), and educational institutions (37%) were the primary sources of information regarding climate change, in addition, of course, to their lived experiences.

When surveyed about incidents affecting them or their households, **28% of all respondents reported frequent occurrences of environmental or natural disasters.**

This was followed by 11% who cited economic hardship. Respondents in Negril and Orange Bay were overwhelmingly more likely to report environmental and natural disasters (73%) compared to those in other locations. In Flagaman, economic hardship was more commonly reported (22%) than elsewhere (Figure 7).

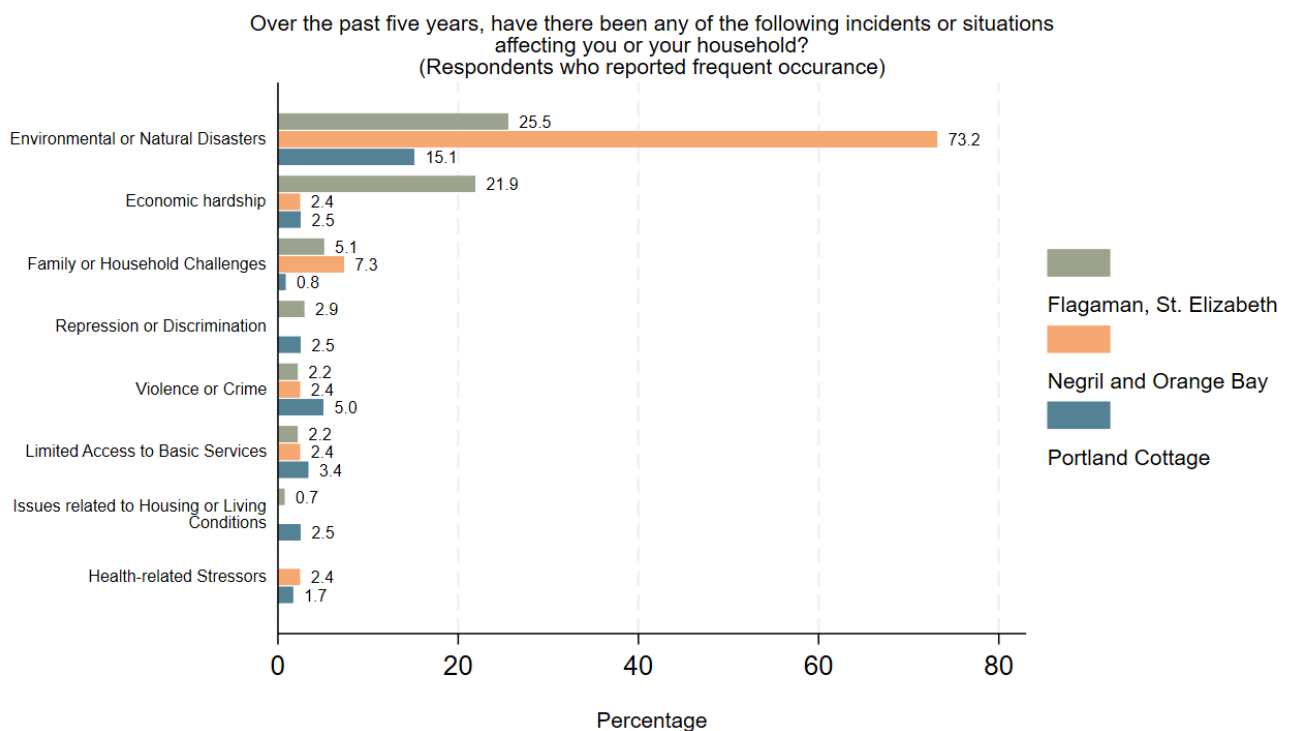


Figure 7. Situations affecting households

Over the past five years, drought was the most prevalent weather event causing damage to homes, buildings, crops, or roads, with around 90% of respondents across all locations reporting its effects. The impact of other weather events varied by location. In Flagaman, 96% of respondents reported worsened produce, as did 69% in Portland Cottage, while only 22% of respondents in Negril and Orange Bay reported this issue. Flooding and tropical cyclones or severe storms were most destructive in Negril/Orange Bay and Portland Cottage.



Image 5. Residence impacted by drought in Portland Cottage, Clarendon, Jamaica. Photo credit: Lance Scott, 2024.

The effects of SLR are already being felt, with respondents reporting significant loss of land reported in Negril and Portland Cottage.¹⁹ Beachfront areas and land along the coastline are reportedly completely submerged.²⁰ Residents have observed visible changes over time due to sea level rise: *"I've been here from when I was a kid and what is now a swimming area deep down the coastline is land spaces I used to walk on as a child."*²¹ Hurricane events have left hundreds homeless throughout Jamaica, indicating that weather does play a role in driving mobility. However, disentangling the effects of weather from those of poverty and other socio-economic factors remains challenging.

When asked how their households were specifically affected by climate change, respondents most frequently mentioned effects on emotional well-being and stress levels, especially in Negril/Orange Bay (93%) and Portland Cottage (79%). These higher proportions of stress reflect the higher instances of environmental disasters in those locations, especially Negril/Orange Bay. In Flagaman, the most commonly reported impacts were on access to natural resources and land (66.7%) and livelihood/income generation (43.3%). In contrast, Portland Cottage respondents reported medium to high levels of impact across nearly all areas of their household lives, indicating a broad and pervasive effect of climate change in this location.

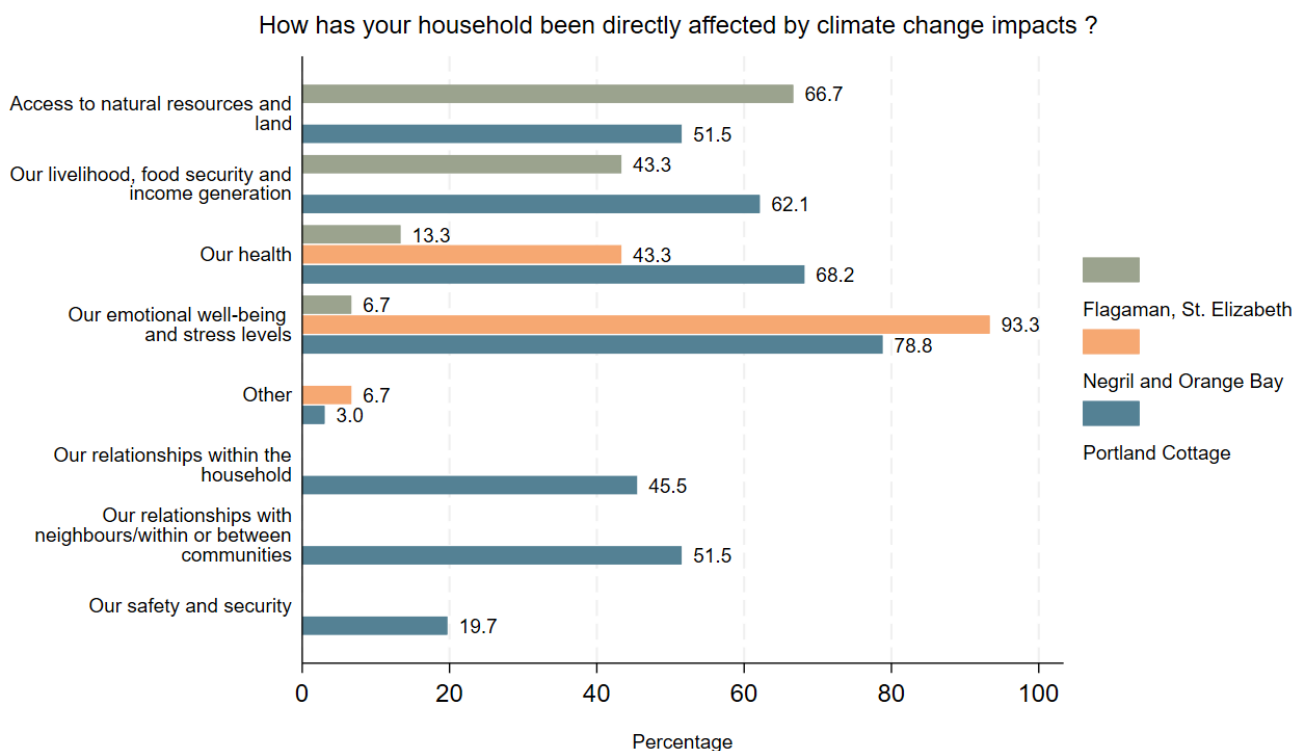


Figure 8. Effects of climate change on households

The resulting impacts of climate change challenges, specifically on emotional well being, access to resources, livelihoods, and social relations are reflected in the following examples:

¹⁹ FGD16, FGD 17

²⁰ FGD16, FGD19

²¹ FGD19

Impacts on agriculture and coastal areas

Water insecurity is a key vulnerability, with droughts exacerbating existing issues related to water access. In Negril, residents allege that corrupt practices worsen the economic impacts of water shortages:

*"There is corruption in the body as it is an orchestrated plan with truck men who sell water and by locking off access to the pipe water, the local water authority forces residents to purchase water when there is none at the pipe."*²²

The uneven distribution of water resources, particularly favouring larger hotels over residents and smaller businesses, further intensifies the problem. Businesses suffer as they cannot maintain hygiene standards, leading to economic downturns, increased unemployment, and migration of skilled workers, contributing to heightened local crime rates, as experienced by research participants.

Tourism and agriculture, two critical sectors, are severely threatened by climate change. In Negril, participants described how poorly planned development initiatives from the 1950s, like draining wetlands for tourism, have led to annual fires that threaten the tourism industry. They reflected that, *"The intention was good, but the dryness has caused fires every year that sometimes chokes our industry with tourism and other things. Sometimes the fire is so aggressive."*²³ Additionally, climate change has intensified the impact on coral reefs and beaches, crucial for tourism:

*"Climate, in addition to man-based activities that pump tons of nutrients (sewage) that cause overgrowth of algae, like smothering the reef and affecting the coral."*²⁴

Agriculture and livestock, particularly in Portland Cottage, face significant threats. Droughts, forcing farmers to buy water from truckers at high costs. In Flagaman, economic burdens are high due to the reliance on trucked water to combat drought effects.

Sea level rise (SLR) has far-reaching impacts on coastal communities. SLR leads to land loss, coastal erosion, and damage to property and coral reefs, which reduces tourism investment and drives migration. One participant explained the visual difference over their lifetime: *"I've been here from when I was a kid and what is now a swimming area deep down the coastline is land spaces I used to walk on as a child."*²⁵ Increased flooding from SLR also damages property and increases health risks from dengue mosquitoes, necessitating in some discussed cases, temporary relocations.

²² FGD16

²³ FGD16

²⁴ FGD16

²⁵ FGD19

The fishing industry also suffers, as fishermen must travel farther and use more fuel, increasing fish prices and making them unaffordable for local residents. As one participant in Negril described: *"You go to the fish market this week and the fish is \$800 per pound, you go next week it's \$1,000 a pound, and the fisherman is going to tell you prices cannot drop."*²⁶ The increase in fuel and fish prices were expressed by respondents in Portland Cottage and Flagaman as well.



Image 6. Visible impacts of drought in Portland Cottage, Clarendon, Jamaica. Photo credit: Lance Scott, 2024.

Social Impacts

Health risks are another critical impact of climate change in Jamaica. Increased heat and drought conditions lead to more dust in communities, causing respiratory issues. Extreme temperatures during heat waves pose additional health risks, and increased flooding raises the prevalence of mosquito-borne diseases like dengue.²⁷

²⁶ FGD19

²⁷ FGD16

Social relations are highly intertwined with the emotional stress, well being and health of a community. Respondents who reported that social relations in the community were affected by climate change most frequently reported that it led to disputes over water resources: 100% of respondents in Flagaman, 59% in Portland Cottage and 33% in Negril and Orange Bay. Portland Cottage respondents were a lot more likely to report an array of social community impacts than interviewees in other locations - from changes in traditional gatherings, to conflicts over community and natural resources as well as property (Figure 9).

Overall participants even recognised that more research and up-to-date data are needed to understand the full scope and impact of climate change and mobility: *“Even some mapping to do some comparisons between data from 50 years ago and recent times would help in the understanding.”*²⁸

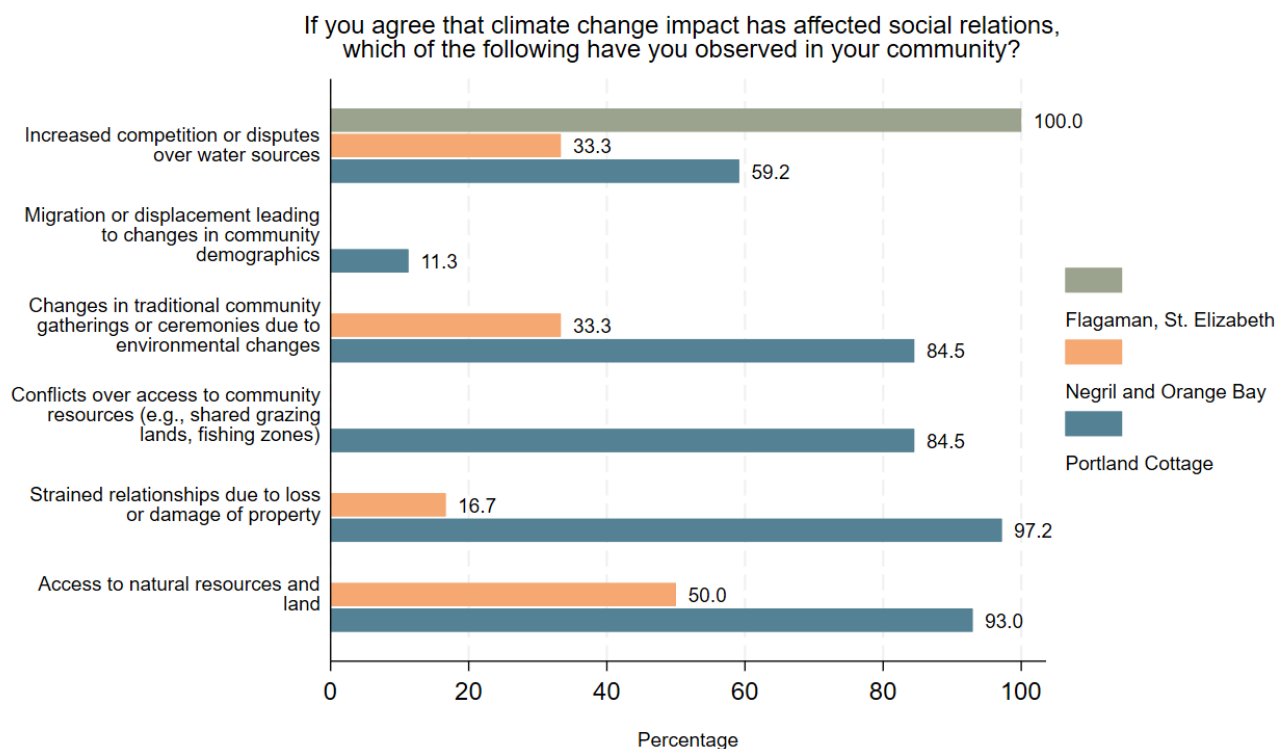


Figure 9. Effects of climate change on social relations

Responses & Adaptations

Adaptations and Strategies

In response to climate change events, **households and communities in Jamaica have implemented various adaptation strategies to cope with climate change, including improved water management, agricultural adaptations, and reforestation.**

However, there is a notable disparity between individual and collective actions. The level of informedness at an individual level plays a crucial role in the perceived capacity to adapt, with higher awareness correlating with more proactive community measures, for example in Portland Cottage.

Household-level climate preparedness remains limited. Households have generally taken fewer specific measures to prepare for climate change impacts compared to their communities. Only 6% of respondents felt their household did take steps to address climate change, a figure significantly lower than in other Greater Caribbean countries studied. However, this varied by region: 11% of households implemented specific measures in Portland Cottage, compared to only 2% in Flagaman and 7% in Negril and Orange Bay.

Conversely, communities are more prepared. A higher number of respondents indicated that their community is taking collective steps to prepare for climate change impacts. Specifically, 56% in Portland Cottage, 38% in Negril and Orange Bay, and just 10% in Flagaman. This dissonance between individual and community actions may be linked to the level of informedness. Higher numbers in Portland Cottage align with the higher levels of informedness (47% vs. 11% in other regions), suggesting a correlation between awareness and perceived capacity to cope with climate shocks. The high levels of community action in Portland Cottage may explain the high rate of social conflicts and challenges, suggesting that efforts to address climate change often lead to tension by disrupting the status quo. The following responses and adaptations are a result of this perceived awareness and capacity.

Communities adapt to drought by improving water storage and shifting agricultural practices. In Portland Cottage, communities store water in tanks, take quicker showers, and reduce water usage for multiple purposes. This collective effort to reduce water waste highlights community cohesion and resilience. Negril and Flagaman residents have installed large water tanks and wells for catching and recycling rainwater, particularly benefiting the agricultural sector. As a participant explained:

*“For those who are farmers, if you look along the rural parts of St Andrew, that is your Stoney Hill, those areas, you’ll notice that they use road water, filter it, and feed their plants.”*²⁹

This is understood as an adaptation among communities, because as a key informant working in climate change explained, having water tanks at home is “not part of their culture” but people are starting to build water tanks when they build their new homes now, in preparation for drought.³⁰ In Flagaman, farmers use mulching to retain moisture and add nutrients to the soil, although they acknowledge it is not enough to combat severe drought. A respondent in Negril explained that:

*“Many of the farms utilise mulching as a strategy and it does help in retaining moisture and adding nutrients to the soil to help our crops but the reality is, it is not enough.”*³¹

Reforestation is an adaptation to mitigate flooding. In Portland Cottage, residents have partnered with the local environment agency to restore mangroves along shorelines, reducing the severity of flooding. This reliance on government support for environmental restoration underscores the community’s trust in collective efforts to address climate challenges. Also, residents have combined their capacities to clean drains to allow the free flow of water into the sea.

Desalination is a government-proposed mitigation strategy for drought. However, the strategy’s sustainability is being questioned by the community. Residents believe this strategy should be financially supported by larger actors like hotels in the tourism industry, who account for high resource usage. The scepticism towards the long-term viability of desalination reflects a broader distrust in some government interventions.

29 FGD16

30 KII16

31 FGD16

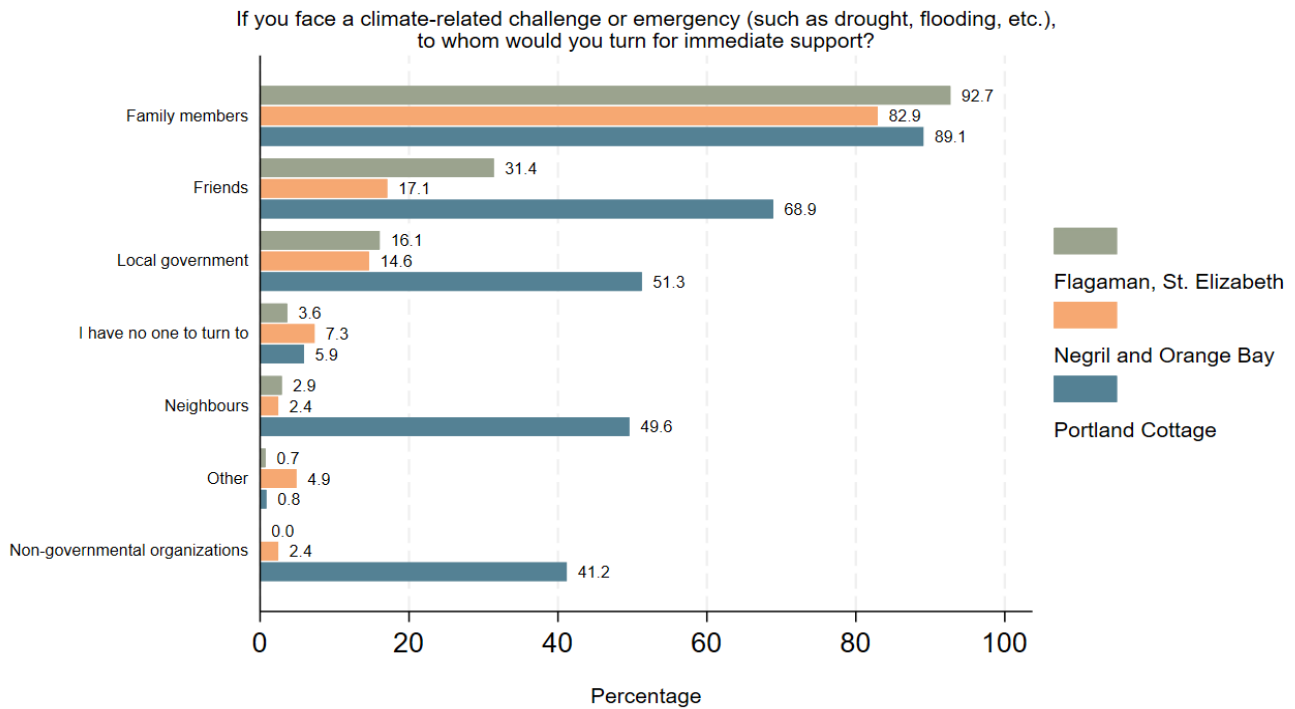


Figure 10. Support mechanisms

Jamaicans also adapt by leaning on their community. When facing climate-related challenges or emergencies, respondents overwhelmingly rely on family members (90%) and friends (44%). In Portland Cottage, respondents were also likely to turn to local government (51%), neighbours (50%), and NGOs (41%), despite strained social relationships. This indicates a stronger community-level trust in Portland Cottage, supported by effective governmental and non-governmental interventions.

This also offers an explanation of the stronger perception of government efforts in supporting the community on climate change aspects (see Figure 11 below). While individual households may lag in specific adaptations, collective community efforts, particularly in Portland Cottage, demonstrate significant resilience and reliance on governmental and non-governmental support.



Image 7. Focus group discussion with community members in Flagaman, St. Elizabeth, Jamaica. Photo credit: Lance Scott, 2024.

Mobility as an adaptation?

Migration is viewed as a temporary response. For communities experiencing the impacts of climate change but contributing minimally to its causes, there is growing frustration over their responsibility to mitigate and adapt to new environments. This disproportionality is evident in coastal communities, where the tourism industry is acknowledged as the largest consumer of essential resources. Few respondents (5%) cited climate change as the main reason for moving, with economic drivers and social factors, such as job opportunity and gang violence, being more significant, but with some instances of migration as a response in cases of flooding and drought.

Many people move internally for economic purposes. This is often based on agricultural production or the tourism industry, where demand for work is high. Negril, for instance, sees significant internal mobility from Jamaicans seeking employment. Some participants spoke of droughts also causing 'return' climate mobility, where individuals who had moved to towns for work return home due to the unsustainable cost of purchasing water when it is unavailable from pipes.³² While this movement is not directly an adaptation to climate change, it reflects economic circumstances influenced by climate-related factors, such as drought. Thus, even though respondents do not cite climate change as a primary influence on their decisions, the factors are increasingly intertwined. Compounding social factors such as gang violence have also been a driving factor of internal mobility, explained as being a: *"cause for them [affected persons] to relocate, maybe not out of the country, not to seek asylum, but enough to move from place to place, on a domestic level."*³³

32 FGD16

33 KII15

In Portland Cottage, residents of lowland areas have undertaken temporary mobility in response to flooding. During flood events, people relocate further inland, a phenomenon most severe after hurricanes, such as Hurricane Ivan in 2004. This event led to severe flooding, destruction of homes, and temporary relocation by USAID.³⁴ Farmers in Flagaman have also reportedly moved to surrounding areas to sustain their livelihoods. A participant noted:

*"I know some persons who migrate to other parts of the community and surrounding areas to lease lands to farm. However, that is very expensive and a lot of the time, people cannot afford that."*³⁵

In this case, climate change impacts, especially droughts, have led to small-scale, community-based mobility.

Communities do not view migration as a viable adaptation strategy, but rather as a short term response or temporary solution. Respondents seemed to consider climate change impacts as temporary, often rapid-onset events or seasonal changes, which encourages adaptation in place rather than relocating. A participant in Negril indicated that adaptation strategies should be adopted in one's place of origin, essentially dismissing migration as an adequate adaptation approach, saying: *"It's not a forever thing. I wouldn't advise anyone to migrate. They have to just find a solution to do what they have to do."*³⁶

Involuntary and voluntary immobility

Attachment to home and lack of resources drive immobility in Jamaica. This is true for those who move involuntarily, or who are not able to move (immobility) even if they want to (involuntary immobility). Since migration is perceived as temporary, there is always the assumption that one will return home. One participant in Flagaman described this allegiance and connection to home:

*"The truth is no, I have never. There is nowhere in the world like Flagaman. It is the best community in Jamaica. Persons migrate for work and for school, but they eventually return home and some of them even start businesses to help support the local economy here and to build the community."*³⁷

In this sense, a strong attachment to home undermines the possibility of permanent mobility.

34 FGD17

35 FGD18

36 FGD19

37 FGD18

Many migrants leave household members behind. About half of those who had previously migrated —whether locally, internally, or internationally —did so alone, while about a third moved with part of their household, and a smaller percentage moved with their entire household. The fact that 80% did not move with their entire household means that some were left behind in the origin locations. Those who did not move with their entire household most frequently reported having elderly household members (60%) stay behind, compared to women (35%) and children (22%). Additionally, 3% reported that family members with disabilities stayed behind, while 25% reported that parents or siblings did so.

Elderly, women, and children often remain behind. The high frequency of elderly, and to a lesser extent, women and children staying behind suggests that these individuals are impacted by climate mobilities without being the ones to move themselves, making them particularly vulnerable to environmental hazards and safety risks. The vulnerability of the elderly who stay when youth move for economic reasons is a pattern found in all of the SIDS studied, with older generations often having even closer roots to home and a consequential resistance to leave.

The reality of not being able to move together as a household reflects how strains on resources impact mobility. A lack of resources is also partially driving immobility in the sense that permanent forms of migration are not financially or practically viable for many residents of climate-affected areas, including because of reasons related to health and psycho-social attachment to communities and spaces). A participant describes this reality, revealing relocation as unsustainable in that:

“Many persons cannot afford to relocate while others have grown to become attached to the area. Many people grew up in the area and inherited houses and land from their relatives.”

Financial barriers and deep ties to home leave many vulnerable and immobile in the face of climate risks.

Looking Ahead: Decision- making

Factors Influencing Decision-making

It is clear from examples in qualitative discussions and in qualitative surveys that respondents in the sample areas vary in terms of how supported they feel by governments, which influence their perception of adaptation strategies.

When it comes to assessment of the support levels received from the local or national authorities, Portland Cottage respondents were significantly more likely to feel they have been given some support compared to the overwhelmingly negative responses of interviewees in Flagaman and Negril / Orange Bay (Figure 11).

As Portland Cottage is considered a high risk area especially due past flooding and storm surges, they have received a lot of support over the years. This suggests a clear relationship between disaster impact and actual support. While this has its pros, the lack of support provided to other high risk locations such as Negril/Orange Bay may undermine their capacity to deal with disasters in the future.

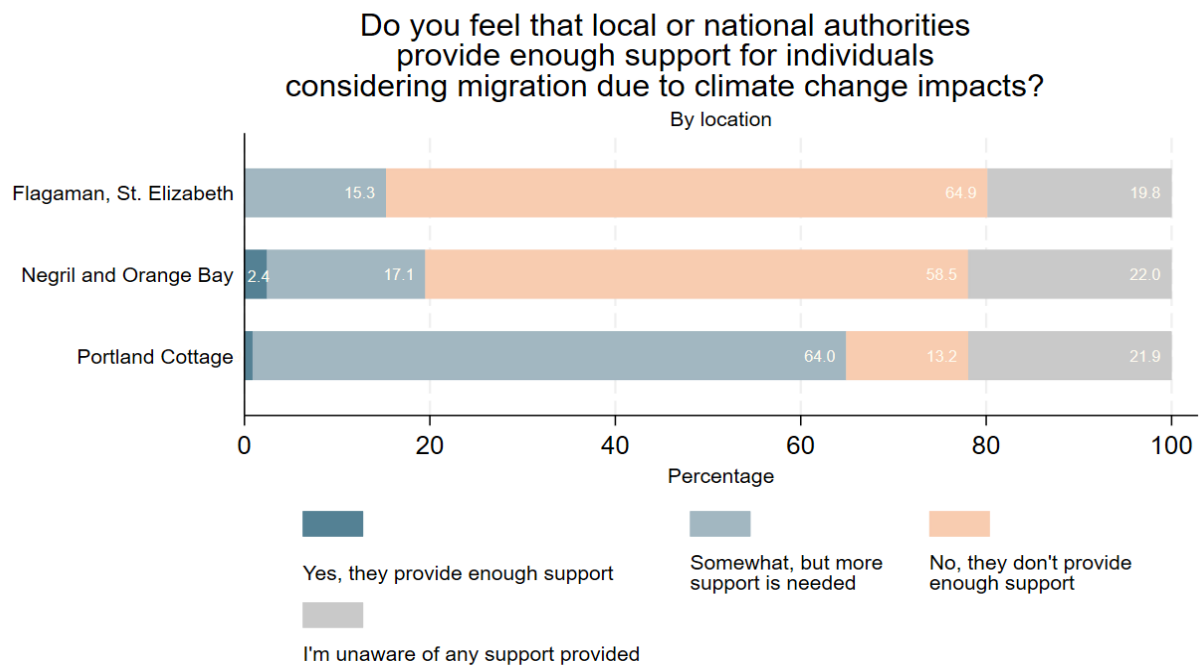


Figure 11. Assessment of government support

If people were to make decisions based on climate, most respondents (79%) reported that the **key climate-related factor that would make them consider moving was scarcity of resources such as food and water, followed by an increase in extreme weather events (61%)**. Portland Cottage respondents were more likely than interviewees in other locations to report an array of climate-related factors that would make them move.

The scarcity of resources in particular was pointed to more in Jamaica than in any other country studied, highlighting the direct impacts of drought and the disproportionate use of resources between the tourism industry and the local population.

- **Economic Factors:**

The primary driver of migration in this context is economic reasons—the search for a sustainable livelihood. While many respondents reported a stable income, with a large percentage working permanent jobs, there remains a significant portion engaged in informal, short-term, or temporary employment. In Negril and Orange Bay, about 66% of respondents were involved in formal employment, whereas, in Portland Cottage and Flagaman, the most common activity type was informal self-employment (46% and 60% respectively). This prevalence of short-term or informal work highlights job opportunities as a crucial factor in decision-making, particularly in an economy heavily reliant on tourism, where demand can shift based on climate events and changes.

- Perception of Government Support:**
 Respondents' perception of adaptation strategies is influenced by how supported they feel by the government. In both quantitative assessments and qualitative discussions, it became clear that respondents' feelings of support from local or national authorities varied. In Portland Cottage, respondents were significantly more likely to feel they had received some support compared to the overwhelmingly negative responses from interviewees in Flagaman and Negril/Orange Bay.
- Climate-Related Factors:**
 If decisions were based on climate factors, the key element that would make most respondents (79%) consider moving was the scarcity of resources such as food and water. This was followed by an increase in extreme weather events (61%). Respondents in Portland Cottage were more likely than those in other locations to report a variety of climate-related factors that would influence their decision to move. Scarcity of resources, in particular, was highlighted more in Jamaica than in any other country studied, underscoring the direct impacts of drought and the disproportionate use of resources between the tourism industry and the local population. The variance of climate-related factors by studied location is presented below in Figure 12.

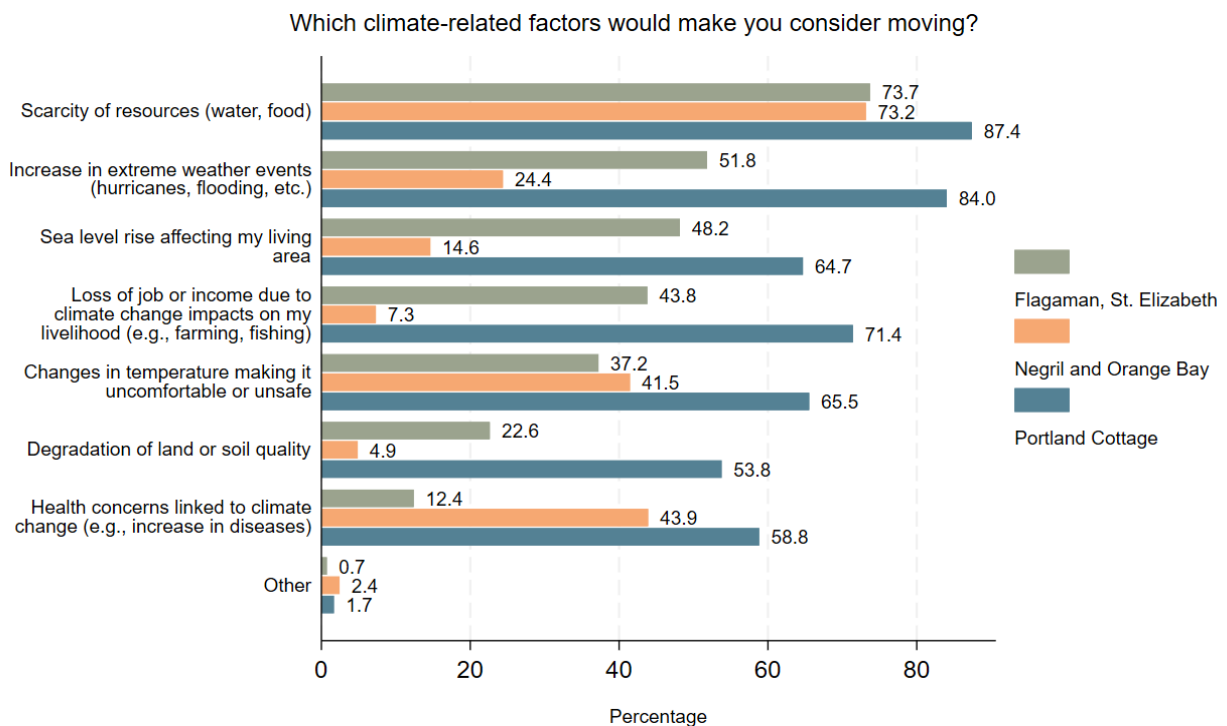


Figure 12. Climate- related decision making factors

Climate and Mobility Decision-making Nexus

Climate change is not the primary driver for mobility in Jamaica. Few respondents (5%) reported that climate change plays a major role in their migration decision-making, while an additional 10% reported that it plays a minor role.

When asked if they believed they could find similar or better living conditions in a new location if forced to move due to climate change, respondents most frequently reported they could find better (43%) or similar (34%) conditions. Only 2% said conditions would be worse, indicating a general optimism about relocating despite climate pressures.

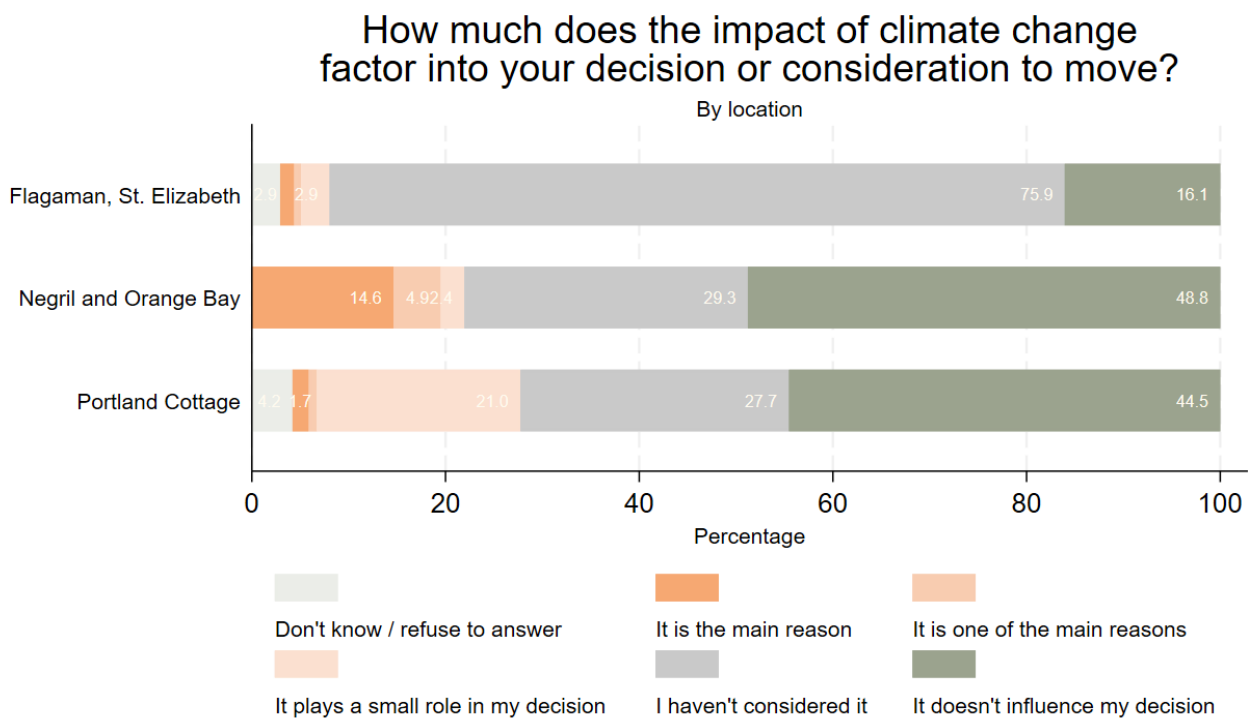


Figure 13. Climate mobility decision making

Most Jamaicans prefer to stay, with economic factors driving migration. When it comes to migration plans, capacities, and aspirations, a significant majority of respondents reported not wanting to move: 73% in Negril and Orange Bay and 82% in Portland Cottage, compared to a lower 51% in Flagaman. The second most common situation was wanting to move but lacking the capacities to do so, reported by 15% of all respondents.

However, in Flagaman, slightly more interviewees reported having concrete plans to move (19%) than not having the capacities but wanting to move. Overall, Flagaman respondents appeared more likely to want to move than respondents in the other two locations, while Portland Cottage respondents were generally most willing to stay.

Of those who are considering or have plans to move, preference for international

migration is significant, particularly in economically challenged areas. When asked about their preferred or planned destinations, most respondents did not have a specific preference (38%), closely followed by around a third (36%) who said they would move to a different country entirely.


The preference for moving abroad was most common in Flagaman (reported by 64% of respondents) and lowest in Portland Cottage (7%). Only 8% reported they would move to a different area within their own country. Additionally, 37% of respondents in the Negril and Orange Bay area wanted to move to a different neighbourhood or village within the same area.

Permanent relocation is the dominant aspiration among potential movers. In terms of the duration of migration, most respondents reported they would move permanently: 83% in Flagaman, 91% in Negril and Orange Bay, and 62% in Portland Cottage. Meanwhile, 14% of all respondents said they would move for a year or more, but not permanently.

This suggests that those who consider moving are looking for long-term solutions rather than temporary fixes, especially given that those who are considering move would rather do so internationally which supports a more permanent move. This is most likely due to the common practice of Jamaicans moving to North America for economic or educational opportunities.



Image 8. Focus group discussion, Greater Negril area, Jamaica. Photo credit: Lance Scott, 2024.



Conclusions: Findings on Climate Mobility

Based on the comprehensive findings from Jamaica, which highlight the complex interplay between climate challenges, adaptive responses, and migration dynamics, it is evident that climate change is impacting Jamaicans but is not perceived as an immediate threat.

Since many of the mobility patterns are influenced by economic demand and livelihoods, addressing the country's climate vulnerabilities requires targeted interventions that integrate economic resilience with environmental sustainability, as many of the economic sectors are vulnerable to climate changes. Prior to this study, there has been limited information on the connection of climate change as a driver of mobility. As a result of this case study, several critical insights have emerged regarding the intersection of environmental challenges, societal responses, migration decisions and adaptive strategies in Jamaica:

- **Jamaica faces a spectrum of climate challenges**, from chronic issues like water insecurity and agricultural threats exacerbated by droughts to acute vulnerabilities in the tourism sector and health risks associated with extreme weather events.
- **Climate challenges have profound impacts on local communities**, intensifying existing vulnerabilities and creating new socio-economic strains. The reliance of key industries like tourism and agriculture on natural resources amplifies the economic impacts of climate variability.
- **Individual awareness is vital for community adaptation to climate change**. Greater informedness leads to more proactive collective actions, emphasising the need to boost climate literacy and engagement. While these efforts can enhance resilience, they may also create social tensions, highlighting the importance of managing adaptation strategies carefully.
- **Despite the pervasive impacts of climate change, migration decisions in Jamaica are predominantly driven by economic considerations** rather than environmental factors alone. The preference for local adaptation strategies reflects a perception that climate challenges can be managed within their current environment, rather than necessitating relocation.
- **Migration patterns and experiences are also defined by household and individual-level factors such as age, gender and socio-economic positions of residents**. It is primarily youth that migrate, while the elderly, women and children are the ones who frequently stay behind, either out of choice or as a result of barriers associated with relocation. Financial constraints, strong connections to home and caring responsibilities render many people vulnerable and unable to move in the face of climate risks.
- **Effective climate resilience strategies in Jamaica must integrate economic development with environmental sustainability**. Targeted efforts should focus on enhancing adaptive capacities, promoting sustainable livelihoods, and fostering community resilience against the backdrop of climate variability.

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Image 9. Coast in the Greater Negril area, Jamaica. Photo credit: Lance Scott, 2024

About Us

Samuel Hall is a social enterprise specialising in research, program evaluation, and data analysis in migration and displacement contexts. Since 2010, we've focused on understanding the disproportionate impacts of climate change on vulnerable communities. Our work across Africa, South, and Central Asia shows that real change often begins at the grassroots level, where local activists, migrants, and displaced people lead constructive dialogues and actions.

The Greater Caribbean Climate Mobility Initiative (GCCMI) is a joint undertaking coordinated by the Global Centre for Climate Mobility and the Association of Caribbean States, bringing together 25 countries, amongst them numerous Small Island Developing States, whose people are most at risk from the impacts of sea level rise and other climate related stressors. The initiative's partners include the World Bank, the UN Development Programme, the UN Office for Disaster Risk Reduction, the UN Framework Convention on Climate Change and the International Organization for Migration (IOM).