

Aden, Yemen



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Satellite image of Aden Governorate, Yemen.



Key findings

- While nearly half of the respondents preferred to remain in Aden, around one third expressed an interest in moving. Yet, among those who wished to move, many lacked the resources to do so, resulting in patterns of involuntary immobility.
- Most household members who had moved in the past reportedly relocated to another city within Yemen. However, among those currently considering mobility, the majority hoped to move abroad, most commonly to Saudi Arabia.
- Economic factors were the primary reported drivers of mobility, with livelihood opportunities and income needs cited most often. However, qualitative findings showed that climatic conditions often worsened economic vulnerabilities, indirectly influencing movement decisions.
- Although most respondents had experienced climate hazards such as extreme heat or unpredictable rainfall, these were generally described as moderate in severity. This likely contributed to climate hazards being cited infrequently as direct reasons for moving. Displaced populations were found to be the most vulnerable to climate stressors, especially those facing protracted displacement and insufficient support.
- The majority of respondents reported being able to meet their basic needs and access essential services. Migrants and IDPs, however, described precarious living conditions and unstable livelihoods, highlighting significant disparities compared to the general population.
- Overall, mobility decisions appeared to be shaped by a combination of perceived resilience, economic pressures, and resource constraints. Future increases in climate hazards or reductions in support or resources could shift this balance, increasing both voluntary movement and involuntary immobility.

Note on the data collection

Data collection was conducted between 3 December 2024 and 7 January 2025. A total of 220 household surveys were conducted, with 110 men and 110 women selected from the governorate. ([map](#))

Eight focus group discussions were held with participants from households in the sample area, with two groups of men and two groups of women from the community of origin (divided by age: 18-25 and over 25); two groups of migrants; and two groups of internally displaced persons (IDPs).¹

In addition, 18 in-depth interviews were conducted. This included eight interviews with individuals from the governorate, specifically targeting the four defined mobility outcomes (involuntary mobility, involuntary immobility, voluntary mobility, and voluntary immobility), with two interviews per outcome. Additionally, two interviews were conducted with migrants and two with IDPs. To gain broader contextual insights, six key informant interviews were also carried out with policymakers, local authorities, community leaders, international non-governmental organisation (INGO) representatives, and climate change experts.

About this project

This case study forms part of a wider piece of research examining how climate-related factors influence mobility aspirations, capabilities, and outcomes in four different locations in the Middle East. It examines decision-making at the individual and household levels, drawing insights into how people process and respond to climate challenges through (im)mobility. The research draws on a framework conceived by the Mixed Migration Centre (MMC) to explore the idea of mobility in the context of climate change impacts. The framework delineates mobility outcomes into four categories: involuntary mobility, voluntary mobility, involuntary immobility and voluntary immobility.² It illustrates how climate-related environmental stressors affect mobility outcomes and how they directly and indirectly impact the aspiration and capability to move. While recognising that these categories are often overlapping and are rarely tidy, it provides a framing for considering the multiple and shifting forms of movement that characterise the region.

The research focused on Aden and Al Maharah governorates in Yemen, Al Qadissiya governorate in Iraq, and Al-Hasakeh governorate in Syria. These are all areas particularly vulnerable to climate-related stressors and represent a diversity of socioeconomic contexts. One case study was developed for each location, and a synthesis report was produced integrating analysis from the four case studies and highlighting key insights gleaned from the research. Data collection for this research included household surveys, focus group discussions and individual in-depth interviews to shed light on experiences of (im)mobility, connections to climate-related hazards, and the perceived outcomes of mobility. Additional expert interviews were used to address any evidence gaps. See the [synthesis report](#) for a more comprehensive overview of the analytical framework and methodology.

MMC carried out this project with funding received from the Foreign, Commonwealth and Development Office (FCDO). It builds on prior research to assess the state of knowledge on climate change impacts on mobility and migration dynamics in the Middle East.³

1 For the purposes of this research, we defined internal mobility as those coming from outside the governorate, excluding movement within it.

2 MMC (2024) [Climate Change Impacts and Mobility in the Middle East What do we know?](#)

3 MMC (2024) [Climate Change Impacts and Mobility in the Middle East What do we know?](#)

A note on terminology

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

- **Climate change:** A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer (IPCC (Undated) [IPCC — Intergovernmental Panel on Climate Change](#)).
- **Climate-related environmental stressors:** Perceived and experienced long-term meteorological impacts on the ecosystem that may affect the functioning of the biological system (e.g. NCBI (2016) [National Center for Biotechnology Information](#)).
- **Climate-related hazards:** Natural meteorological events that pose danger to humans and the environment. These events occur due to deficiencies or excess of precipitation, destructive winds and anomalous temperatures (based on WMO and UNFCCC 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. However, the scope and timeframe were limited to specific areas within the case study governorates at a particular moment in time. As a result, the findings from these areas may not reflect the full range of experiences and responses to climate change and mobility across the governorate, and conditions and responses could vary in other areas. In addition, while the findings offer insights into perceptions of climate-related environmental stressors and adaptation, the research represents a snapshot in time, and so provides limited insights into how perceptions and attitudes develop over time. Finally, given the adoption of non-probabilistic sampling, the findings should be considered indicative.

Aden and climate risks



Aden's Mualla district, a coastal urban area overlooking the Gulf of Aden. As one of the country's major urban centres, Aden faces growing climate risks, including coastal erosion, sea level rise, and intensifying heatwaves.

Photo credit: © Ahmedxalkatheri/ Wikimedia Commons (2023)

Geographic and demographic context

Aden is a governorate of approximately one million inhabitants on Yemen's southwestern coast. It has been significantly impacted by the ongoing civil war in the country and was attacked by Houthi rebels in 2015 (although they were subsequently repelled). The area is now under the control of the Southern Transitional Council, which was integrated into the internationally recognised government in 2019 under a Saudi-backed deal.⁴ Its urban population is relatively well educated.⁵

Across Yemen, roughly 4.5 million people have been internally displaced over the past 9 years due to a combination of the conflict and associated deterioration in rural conditions, including limited access to water, electricity, markets and basic services.⁶ About 100,000 of these individuals are hosted in Aden.⁷ Many IDPs live in precarious circumstances in make-shift camps and informal settlements or in urban areas, which increases pressure on infrastructure in those areas.⁸ Others reside in temporary homes in low-lying areas that are prone to flooding, particularly in coastal areas, leaving them vulnerable to unpredictable weather patterns. In response to diminished livelihoods, many are increasingly resorting to negative coping strategies, such as selling off remaining assets. Numerous families have sent individual members to nearby cities or abroad, especially to Gulf Cooperation Council (GCC) states, with remittances from migrant workers forming a vital source of income for those who remain behind.⁹

Aden also hosts approximately 20,000 migrants, mostly from Somalia, but also from Eritrea and Ethiopia.¹⁰ For many, the primary reason that they left home is conflict, however, in interviews and focus group discussions, several also mentioned the impact of drought in their home areas. Not all migrants see Aden as their final destination, with many viewing it as a transit point for onward movement to the Gulf countries, whether they have the resources to do so or not. Those who used smugglers to reach Aden are often depleted economically, physically, and psychologically by the time they arrive from their arduous journeys. For instance, an interviewed Ethiopian mentioned being detained by the smugglers for two years while they tried to extort payment for his release from his family, who lacked the necessary funds.

Yemenis, particularly young people, have moved to Aden for various reasons, with many from rural areas drawn by the search for job opportunities and the hope of escaping poverty. Some also flee water scarcity in the countryside, in areas such as Yafea.¹¹ Many of the IDPs interviewed reported moving

4 International Crisis Group (2021) [Yemen's Southern Transitional Council: A Delicate Balancing Act](#).

5 Yemen Ministry of Education (2009) [National Report On Adult Education Programs in the Republic of Yemen](#).

6 UNHCR [Operational Data Portal](#) (2024) Yemen.

7 UNHCR [Operational Data Portal](#) (2024) Yemen.

8 Kyungmee, K et al. (2023). [Climate, Peace and Security Fact Sheet: Yemen](#). SIPRI.

9 Norman, K (2023). [Migration and Displacement in the Arab World Demands a More Equitable Response](#). Carnegie Endowment for International Peace | Key informant interviews

10 UNHCR [Operational Data Portal](#) (2024) Yemen. Governorate-level figures are accessible only for the refugee and asylum seeker population registered by UNHCR. Estimates of the migrant population are only available at the national level (approximately 132,330 migrants in Yemen, according to UN OCHA. For the purpose of this research, and unless stated otherwise, individuals engaged in mixed migration, including refugees and asylum seekers, are categorised under the term "migrants".

11 Key informant interview with Policy maker.

to Aden to escape the conflict in Hodeidah, an area severely impacted by the hostilities, with the need for safety outweighing concerns about the higher temperatures in Aden. The majority originate from rural areas and hope to return when the situation in Hodeidah improves.

History of climate hazards in Aden

Yemen generally, and Aden specifically, is vulnerable to multiple climate hazards, including unpredictable rains, extreme temperatures, drought and sea-level rise.

- **Unpredictable rainfall:** Over the past two decades in Aden, rainfall patterns have noticeably changed from rare and light to more frequent and unpredictable heavy rainfall.¹² While this increased rainfall has negative consequences, it also yields by recharging ground and well water.¹³
- **Extreme heat:** Temperatures in Yemen are rising more rapidly than the global average, a trend particularly evident in Aden, where the weather is characterised by already high and still increasing temperatures. The challenge of extreme heat is made more pressing by frequent power outages, which limit coping capacity.¹⁴
- **Drought:** Yemen's coastal areas, such as Aden, generally get relatively low rainfall, meaning that drought cycles, which tend to hit Yemen every 10-15 years, have a strong impact on the region.
- **Sea level rise:** Aden is the sixth most vulnerable city in the world to sea level rise,¹⁵ and there are fears that substantial areas could become inundated, affecting 55% of the coastal population and turning ground water supplies brackish.¹⁶
- **Flash floods:** Aden is increasingly affected by flash floods, particularly during the more frequent intense rainfall events. The city's low-lying areas and inadequate drainage infrastructure exacerbate the risk and impact of these floods.¹⁷



A building collapse in Aden following heavy rains and floods in 1992. In recent years, Aden has experienced more frequent flooding, overwhelming poor drainage infrastructure and putting densely populated areas at greater risk.

Photo credit: © Khaled Salah/Flickr (uploaded in 2018)

¹² Yemen Family Care Association (2023) [Climate Change Impacts on Yemen and Adaptation Strategies](#).

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Muneer Bin Wabar (2024) [From Palms to Sands: How Climate Change is Destroying Green Yemen](#) Fikra Forum.

¹⁶ Yemen Family Care Association (2023) [Climate Change Impacts on Yemen and Adaptation Strategies](#).

¹⁷ The World Bank (2023), [Yemen Climate risk country profile](#).

Population profile and perceptions

Profile of survey respondents

220 individuals interviewed

Gender:

49% men and 51% women

Age:

18-25: 20%;

26-65: 79%;

Over 66: 1%

Average household

composition:

5.5 members, 1.5 financial contributors, 1 child

Education completed:

57% university or higher;

2% vocational;

28% secondary education;

11% primary education;

1% none

Remittances:

Only 11% received remittances

Economic activities and livelihoods

Respondents in Aden reported working across a range of sectors, many of which are less directly exposed to climate-related hazards, potentially contributing to a degree of resilience. Of those respondents who were reportedly working (n=163), the most common sectors were administrative and support services (25%), education (15%), health and human services (11%), transportation and storage (11%), and construction (10%). Only 3% were employed in fishing, and none reported working in agriculture. Focus group participants mentioned employment in both public and private sector roles, indicating that they worked in fishing and agriculture. In this context, while most respondents were generally in sectors less directly exposed to climate hazards, some sectors remain vulnerable: for example, unpredictable rainfall can disrupt transport, and construction work often takes place outdoors, increasing exposure to extreme weather conditions. The general diversity in livelihoods was also reflected in the lack of direct dependence on agriculture or fishing as food sources. The vast majority of respondents (97%) said they did not rely on farming or fishing for food at all, while 2% reported partial reliance and 1% stated they got all their food this way.

In terms of occupational status, nearly half of the respondents (43%) were employed full time, while 27% were engaged in casual work and 11% in care work. Smaller proportions were studying (5%), not working (5%), or retired (2%). Only 4% identified as self-employed.¹⁸

Migrants face particular challenges in accessing stable employment. In interviews, many reported relying on temporary jobs such as car washing, cleaning, and other forms of manual labour. These roles often require working outdoors, increasing their exposure to climate-related hazards, especially extreme heat. Some elderly migrants were reportedly forced to resort to begging.¹⁹

Although the region has been profoundly affected by conflict, this did not appear to be a primary concern of respondents at the time of data collection. Just 16% said their household had been concerned about violent conflict in the three months prior to the survey (80% were not concerned, 6% had been concerned once or twice, 10% several times, while 1% didn't know and 1% preferred not to answer).²⁰ Concerns about women and girls walking alone were similarly limited, with 13% of respondents stating that women and girls in their household had felt unsafe at least once in the past three months (7% reported this occurred once or twice, and 6% several times). Among the 77 respondents whose households were considering moving, only one cited conflict as the reason. Qualitative interviews also reflected a perception of Aden as relatively safe.²¹

¹⁸ The remaining 1% refused to answer.

¹⁹ Interview with an Ethiopian.

²⁰ Percentages don't add to 100 due to rounding.

²¹ Key informant interviews and Focus Group Discussions.

Basic needs, access to services, and future outlook

Despite the challenges described by communities in Aden, most reported being able to meet their basic needs.

Seventy-nine percent of the respondents said their households were able to meet their basic needs, whereas 17% reported that they could not.²² Most (95%) never needed to use firewood for heating or cooking. Housing conditions were generally adequate, with 89% living in apartments in good condition, although 10% lived in damaged ones.²³ Still, those who did not have regular work or decent housing appeared to be struggling, pointing to a significant economic divide, often characteristic of urban settings.

Migrants face particular challenges in meeting their basic needs. Many live in temporary housing such as tents or abandoned buildings that are overcrowded and lack access to clean water, electricity, and adequate sanitation.²⁴ Interviews and focus groups revealed that migrants live in densely populated areas with poor drainage and limited infrastructure. An interviewed Ethiopian woman reported occasional tensions with host communities, who expressed concerns about the growing presence of migrants in their neighbourhoods.²⁵

Respondents also reported a relatively high level of access to services, with 96% saying that services were at least somewhat or easily accessible (35% described them as somewhat accessible, 53% as easily accessible, and 8% as very accessible). Only 4% reported difficulty accessing services, and none said they were completely inaccessible. Almost all respondents (95%) felt they could access these services without discrimination. However, migrants who lacked official documentation reportedly faced particular barriers, especially in registering their children in school.²⁶ Concerns were also raised about the increasing population density in urban areas, particularly poorer neighbourhoods, and its potential impact on future access to essential services.²⁷

While basic needs were being met for many, uncertainty about the future was widespread. When asked whether their household would be able to provide for its members five years into the future, 51% said they did not know. Around a quarter (26%) were optimistic, expecting things to improve, while 15% anticipated a similar situation and 6% believed conditions would worsen.

Impacts of climate-related events

Respondents reported having experienced a number of climate hazards in Aden, including unpredictable rainfall, extreme heat, drought and sea level rise. Almost all respondents (98%) reported that their household had been exposed to at least one climate hazard (see Figure 1). Those who indicated that these hazards had impacted the community in Aden (n=212) were asked to rate how severely their household had been affected. The majority (63%) described the effects as slight or moderate, suggesting that while climate impacts were widely felt, they were generally not severe. However, 16% reported that at least one hazard had severely or very severely affected their household. These findings indicate that although most households were affected to a limited degree, a smaller yet notable share experienced more serious consequences.

Many respondents felt that climate hazards were becoming both more frequent and more intense. Among those who cited specific consequences of extreme heat (n=65), 57 believed its impact had worsened over the last five years before data collection as compared to the five years prior (45 said that it had become much more severe, and 12 said slightly more severe).²⁸ Similarly, of those who mentioned specific consequences of unpredictable rainfall (n=87), 70 felt its effects had become more severe (22 describing it as much more severe and 48 as somewhat more severe).²⁹

22 4% preferred not to answer.

23 One percent lived in public schools or religious buildings.

24 Focus group discussion with migrant men.

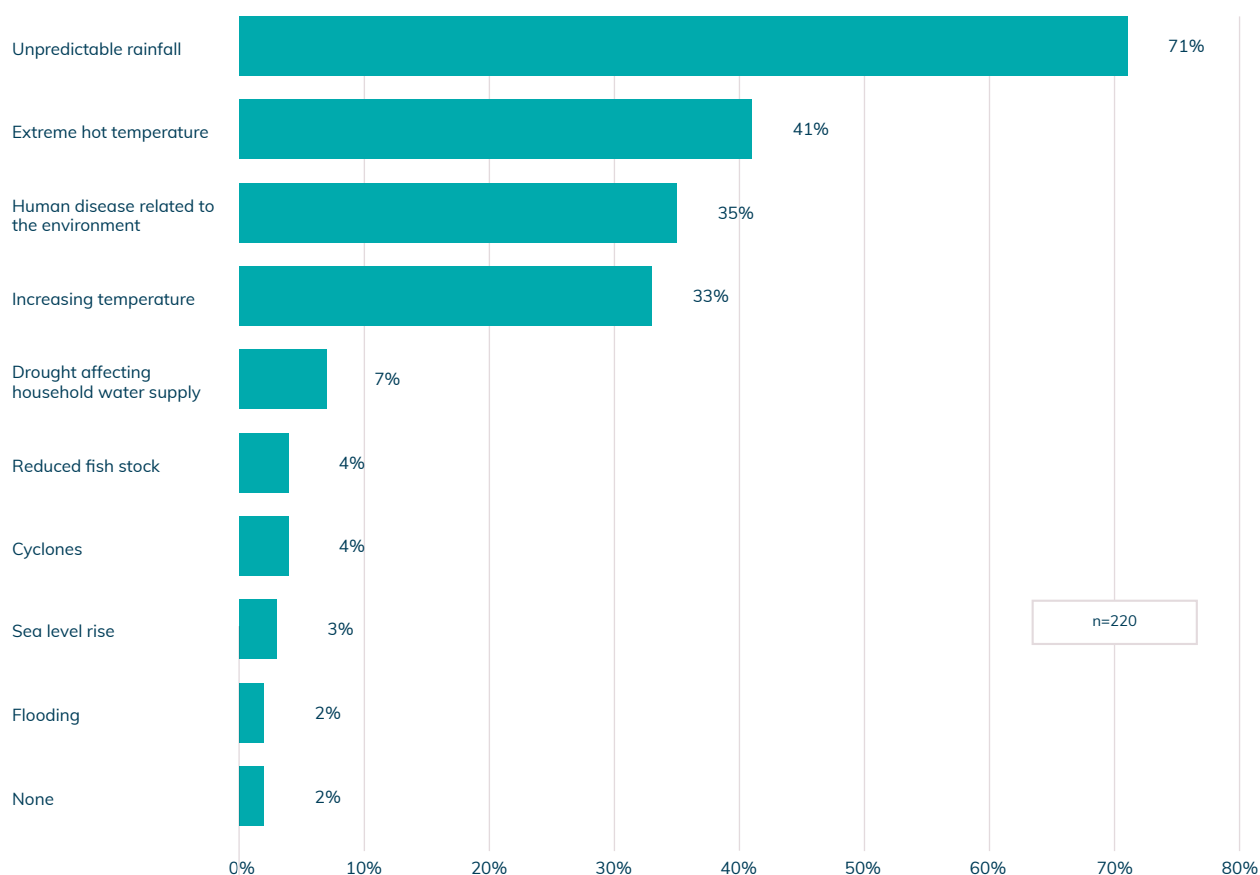
25 Interview with an Ethiopian woman.

26 Focus Group Discussions.

27 Focus Group Discussions.

28 Five said that they had remained the same, two said that it had become less severe and one didn't know.

29 Ten reported that it had become less severe while one did not know. One respondent said that unpredictable rainfall had not happened in the 5 years prior.

Figure 1. Reported climate-related hazards experienced in the five years prior to data collection³⁰

Climate hazards are increasingly contributing to a range of adverse outcomes in Aden, including health impacts, disruption of utilities, destruction of homes and infrastructure, and effects on some livelihoods. Respondents who reported that hazards had affected their household (n=203) were asked about the types of impacts they experienced.³¹ Figure 2 shows reported impacts associated with unpredictable rainfall.

- Health impacts:** Health-related consequences were the most commonly reported impact across all climate hazards, mentioned by 54% of respondents (n=203). These impacts were most frequently linked to extreme hot temperatures. A key informant noted that extreme heat can lead to a range of negative health outcomes, including heat stress, particularly among children and the elderly. They also explained that flooding and heavy rainfall can result in stagnant water, creating breeding grounds for mosquitoes and increasing the risk of diseases such as dengue fever and malaria.³² Focus group participants additionally reported that limited access to clean water following floods contributed to illnesses such as cholera and diarrhoea.³³ Flooding was also said to strain public health infrastructure by overwhelming sewage systems.³⁴
- Disruption of utilities:** Disruptions to basic utilities were the second most frequently mentioned impact (42%), most often associated with unpredictable rainfall. Such disruptions can undermine households' ability to cope with climate stress, including limited access to electricity or water during heat waves or storms. As one policy maker in Aden explained: "In days of extreme heat, demand and consumption increase, and generators are subject to stoppage and disruption due to increased loads. Or when there are hurricanes, power lines and transformers may be damaged or malfunction."³⁵ Shortages in the water supply were a particular concern. Over half of respondents (54%) reported needing to fetch water (14% frequently, 26% sometimes, and 15% rarely) while 46% did not. One interviewee highlighted the financial burden of accessing clean water during shortages, noting that drinking

³⁰ Respondents could choose multiple options.

³¹ Multiple consequences could be associated with each reported hazard.

³² Key informant interview, Climate change expert.

³³ Focus Group Discussion women 25+.

³⁴ Key informant interview, Climate change expert.

³⁵ Key informant interview, Policy maker.



An abandoned building serving as a shelter for migrants in Aden.

Photo credit: ©IOM (2020)

water could cost up to \$30 for 100 litres.³⁶ For households unable to afford these costs, the only option is often to rely on collected rainwater, even when it becomes stagnant.³⁷ High temperatures further intensify water stress by increasing demand for water and accelerating evaporation from storage containers.

- **Destruction of infrastructure, homes and personal items:** Damage to homes was also reported (26%), particularly in relation to unpredictable and heavy rainfall. Those living in inadequate shelters (particularly migrants who reportedly often live in tents, informal housing, or even on the streets³⁸) were described as especially vulnerable to flash floods, which can destroy their dwellings and force them to start over. Flooding can also disrupt local economies: roads connecting Aden to other areas had reportedly been cut off, limiting trade and market access. This can leave goods stranded or spoiled and reduce work opportunities for groups like taxi drivers and traders.³⁹

- **Reduction in agricultural and fishing yields:** Though few respondents in Aden reported directly relying on agriculture or fishing, climate hazards have nonetheless affected these sectors in ways that impact the broader population.⁴⁰ Drought and extreme heat can kill crops and livestock, while rising sea temperatures may damage marine ecosystems and reduce fish stocks. These impacts directly affect those working in agriculture and fishing, while also contributing to rising food prices that strain household budgets across the city.

Displaced populations are particularly vulnerable to the impacts of climate hazards. Many IDPs in Aden are experiencing protracted displacement, with some having been displaced for more than 10 years due to conflict that has severely impacted security and infrastructure in their home regions. Returning home remains difficult for many, particularly those originally from mountainous regions, where access to land for cultivation has become extremely limited or non-existent. As a result, this population remains immobilised and increasingly vulnerable.⁴¹ Ten years of fighting have further stressed limited resources. Over a decade of conflict has placed additional pressure on already scarce resources. The collapse of basic government services and restrictions imposed by warring factions have exacerbated food and water shortages.⁴² The 'weaponisation' of water, such as deliberate blockades or the destruction of infrastructure, has contributed to both prolonged conflict and acute famine in parts of the country.⁴³

Respondents also recognised that certain groups within their communities were more at risk from climate hazards, in particular older people and children. Among those who reported impacts of unpredictable rainfall (n=156), 73% said older women were most affected, followed by 71% citing older men and 66% mentioning children.⁴⁴

36 Key informant interview, Community leader-CSO.

37 Key informant interview, community leader-CSO, Aden.

38 Focus Group Discussion, young men.

39 Focus Group Discussion, young women.

40 Focus Group Discussion, women 25+.

41 MMC (2024) [Climate Change Impacts and Mobility in the Middle East: What do we know?](#)

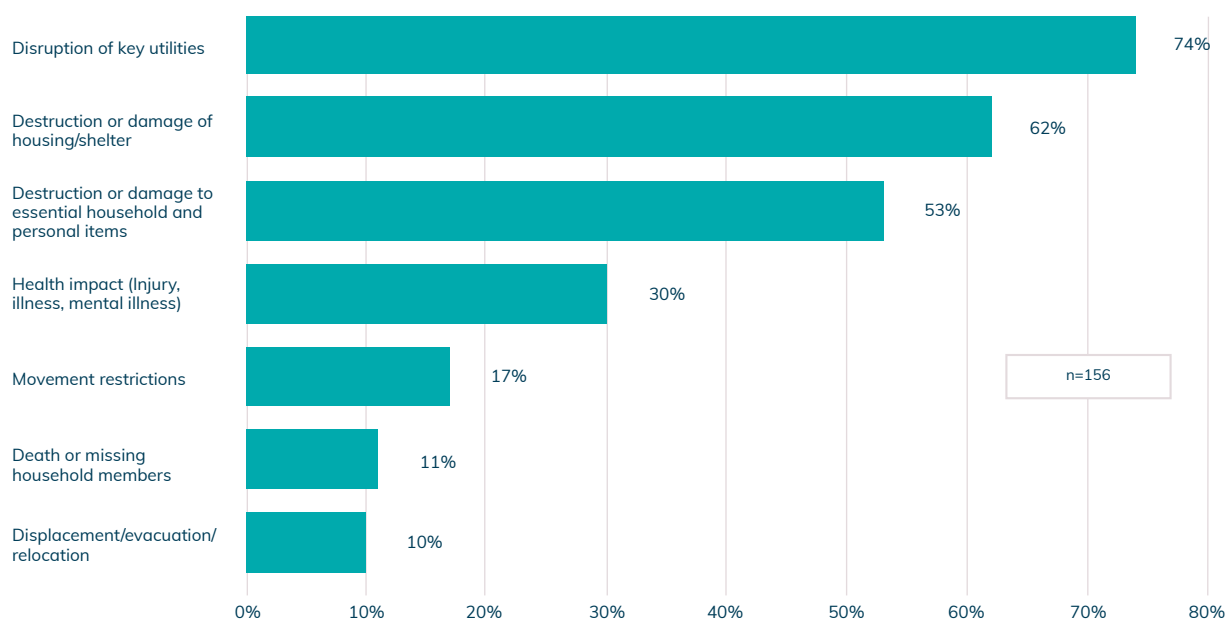
42 Norman, K (2023). [Migration and Displacement in the Arab World Demands a More](#)

[Equitable Response](#). Carnegie Endowment for International Peace | Key informant interviews.

43 Ibid.

44 Respondents could select more than one answer. Other less frequently mentioned population groups included women (33%), young women (28%), men (27%), and young men (24%).

Figure 2. Most commonly mentioned consequences of unpredictable rainfall, as indicated by respondents who indicated that their household was impacted by this hazard⁴⁵



Responses to climate-related impacts

Although the vast majority of respondents in Aden reported exposure to climate hazards, only a small minority mentioned receiving any form of support to cope or adapt. While some community members, particularly youth and those with strong social ties, have reportedly developed informal strategies to manage these risks, resilience remains uneven and shaped by factors like housing, income, and displacement status. In the absence of coordinated government leadership and effective external assistance, adaptation efforts are largely reactive and unsupported.

Community resilience and adaptation

Participants in focus group discussions highlighted both existing strengths and significant gaps in communities' ability to cope with climate hazards in Aden. **Resilience was described as uneven and shaped by factors such as age, socio-economic status, housing conditions, social networks, and displacement or migration status.**

Local knowledge, youth engagement, and social cohesion emerged as key sources of resilience. Participants across different groups noted that some residents, especially in agricultural communities or those long accustomed to drought, had developed strategies for coping with environmental challenges. These included traditional farming methods, water storage techniques, and makeshift drainage solutions to prevent water stagnation and disease after heavy rains. Youth were frequently mentioned as active responders during climate events, particularly floods, with many assisting neighbours and helping divert rainwater despite the lack of proper tools or formal support. Participants highlighted that in some areas, strong social bonds among neighbours, extended families, and peer groups helped households share resources and information during periods of hardship. However, such initiatives remain sporadic and are not consistently present across communities or sustained over time.

⁴⁵ Respondents were asked to associate consequences with each climate hazard they reported occurring in the 5 years prior to the survey, and multiple options could be selected. In addition to the main reported impacts shown in the graph, respondents also cited the following consequences of unpredictable rainfall: limited access to markets or shops (5%), hindered access to sanitation facilities (4%), livelihood assets loss such as crops, livestock, or land (3%), access to education facilities (2%), access to healthcare facilities (2%), and access to drinking water (2%). Only 5% did not report any impacts.



The Ammar Bin Yassar camp in Aden hosts large numbers of IDPs living in fragile shelters, heightening their exposure to climate hazards.

Photo credit: © MYOP for the EU/ Flickr (2024)

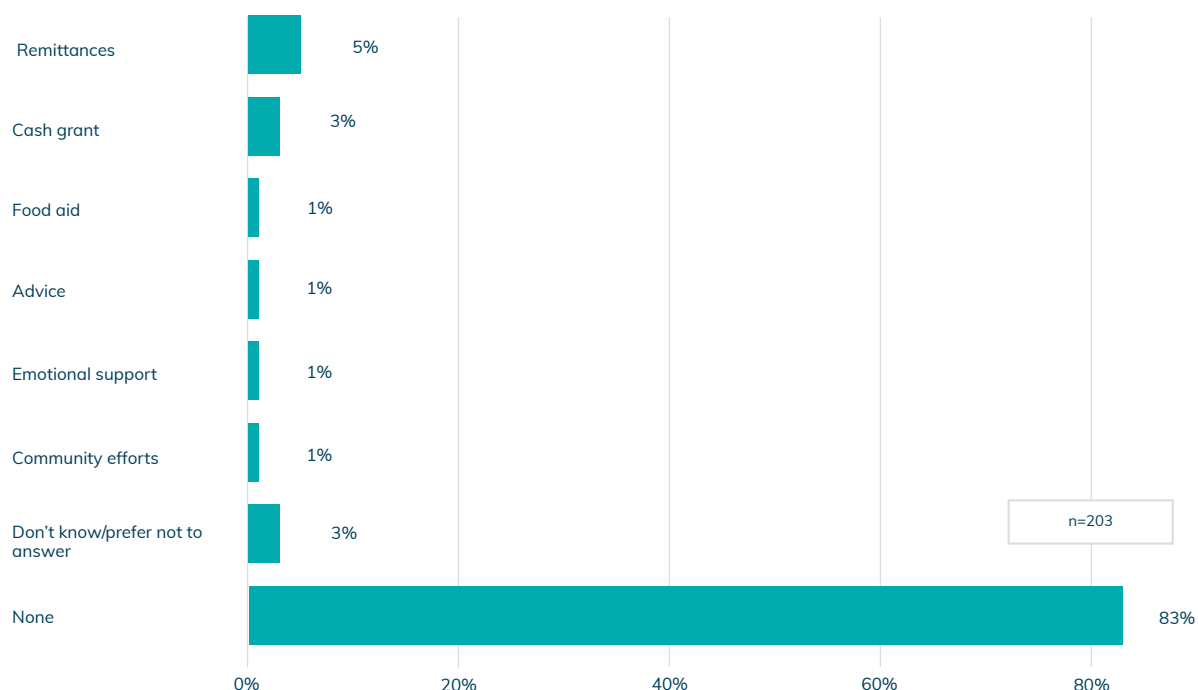
Resilience also varied by housing conditions, community ties, and education. Those living in formal housing, particularly on higher floors, were reportedly generally better protected from flooding compared to those in tents, informal shelters, or ground-level homes. Migrant participants reported that those who had established strong relationships with host communities or had multiple sources of income were seen as more resilient, while those sleeping in public spaces or relying on unstable livelihoods were acutely vulnerable. Similarly, several group discussions highlighted that better-educated individuals were more likely to access support services and adapt to changing conditions, while limited education and awareness hindered the use of safe or sustainable practices.

IDPs shared experiences of adaptation under constrained conditions. IDP participants emphasised that displaced families in Aden had gradually adapted to its harsher climate, particularly extreme heat, despite worsening infrastructure, long power outages, and the unaffordability of basic goods. However, resilience was often born of necessity rather than support. Participants highlighted the vulnerability of tents, where many IDPs in Aden reside, to environmental stressors, describing them as unsafe and easily damaged and underscoring the urgent need for improved shelter and early warnings. Several expressed that they were “trying to adapt” until conditions allowed for return, though they acknowledged the challenges of prolonged displacement and the limited resources available to them.

External support for responding to climate hazards

Very few respondents who were impacted by climate hazards (n=203) reported receiving any support to adapt or respond. As shown in Figure 3, the vast majority (83%) said they or their household members had received no support at all.

Figure 3. Assistance/support received when faced with or in preparation for climate shocks, as mentioned by respondents who reported experiencing climate hazards⁴⁶



⁴⁶ Respondents could select multiple answers.

Among the 27 respondents who did report receiving assistance, most identified informal sources, with 14 stating that this support came from family or friends. Other sources of support included NGOs (8), and 3 local community organisations (2).

Qualitative interviews provided additional detail on the nature and limitations of available support. Migrant participants mentioned receiving some assistance from United Nations (UN) agencies and international organisations. However, one policymaker interviewed in Aden was critical of the quality and relevance of this support. They noted that some humanitarian responses did not meet Sphere standards and failed to adequately consider climate risks in the design and construction of camps.⁴⁷ There were also scattered mentions of private philanthropic support from wealthy individuals providing aid to communities in need. Views on mutual aid within communities were mixed: some participants described neighbourly support as an important coping mechanism, while others reported little to no mutual assistance.

A few community members noted that early warning systems existed in limited form, including notifications shared via mosques or social media.⁴⁸ However, these alerts were often described as delayed or insufficiently actionable, with little support provided to help people evacuate or prepare once warnings were issued.

Government role and perspectives

Although Yemen has taken some action toward climate preparedness, such as launching its National Adaptation Programme of Action (NAPA) in April 2009, these efforts have been hindered by civil war,⁴⁹ and focus group participants were critical of the government's lack of leadership.⁵⁰

At the same time, many participants expressed clear ideas about the kinds of actions that could be taken. Suggestions included organising awareness workshops on climate risks; adapting buildings to withstand heavy rainfall, including repairing damaged roofs; improving roads and clearing rainwater drainage systems; using solar energy to mitigate electricity cuts; and planting trees to cool residential areas. One focus group participant recommended developing a floodwater drainage system similar to the one reportedly in place in Sana'a, which was said to significantly reduce the impact of heavy rains. Others suggested regular mosquito and insect spraying after floods to reduce the spread of disease.⁵¹

While a few small-scale, community-led initiatives were mentioned, these efforts were described as informal and largely unsupported by government structures.⁵² Focus group participants consistently noted the absence of government-led climate adaptation strategies. As one participant put it, "There are no entities that take responsibility for educating and reporting these risks."⁵³ Others pointed to a lack of coordination among relevant agencies and noted that climate concerns are often deprioritised in favour of immediate economic needs.⁵⁴ Some respondents argued that government decisions had worsened vulnerability, for example, by allowing construction in flood-prone areas without regulation or safeguards.⁵⁵

47 Key informant interview, policy maker.

48 Focus Group Discussions.

49 UNDP (2009). [Yemen National Adaptation Programme of Action \(NAPA\) Official Document](#).

50 Key informant interviews.

51 Focus Group Discussion young women.

52 Key informant interview, Climate expert.

53 Focus Group Discussion young women.

54 Key informant interview, Climate expert.

55 Key informant interview, Climate expert.

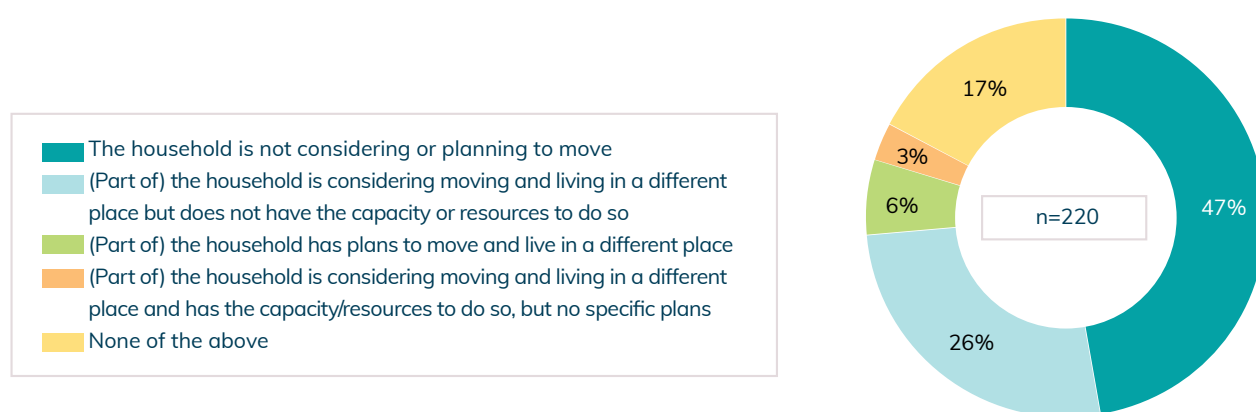
Mobility patterns

Mobility to and from Aden did not emerge as a widespread phenomenon among respondents and their households.

Eighty-eight percent reported that no one in their household had moved in the past ten years. When asked about broader migration trends within their community, nearly half (49%) said that mobility was uncommon or very uncommon, while 27% considered it neither common nor uncommon, and only 17% viewed it as common or very common.

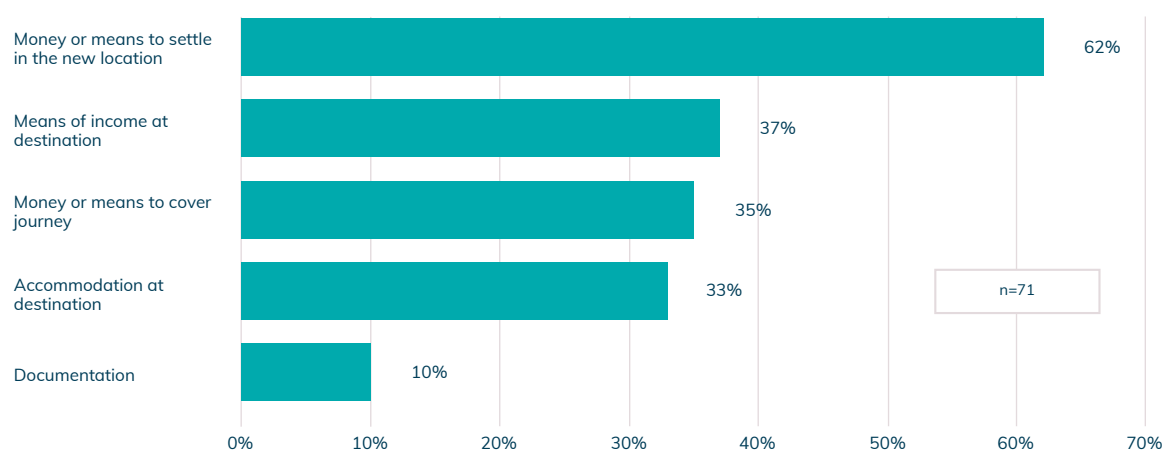
When asked about future mobility, nearly half of the respondents (47%) said that no one in their household was considering or planning to move. Only 9% reported that at least someone in their household was either already planning to move or was considering mobility and had the resources to do so. A further 26% said that at least one member of their household was considering moving but lacked the resources (see Figure 4). This suggests that **while mobility aspirations exist in some households, they are often constrained by limited means, leaving many to adjust their plans and remain in place.**

Figure 4. Reported mobility intentions and availability of resources/capacity to do so



Respondents who reported mobility considerations/plans within their household with specific plans about this movement (n=71) were asked about the types of support that would enable them to move in the way they intended. The most frequently provided answers are presented in Figure 4.

Figure 5. Top five reported needs to move as desired⁵⁶



⁵⁶ Respondents could select multiple answers.

Respondents who were planning or considering moving (n=77) indicated a moderate to high level of urgency in decision making around mobility. Respondents who reported that (part of) their household was considering moving (n=77) were asked to rate the level of pressure influencing that decision on a scale from 1 to 10, where 1 indicated “no pressure to move and it is a free choice” and 10 meant “no choice at all and an urgent need to move.” Twenty-eight respondents reported high pressure (scores 7–10), 26 mentioned moderate pressure (scores 4–6), and 10 reported low pressure (scores 1–3), indicating that mobility may not be entirely voluntary for many households.⁵⁷

Household members who had reportedly moved in the ten years before data collection tended to move within the country, while those currently considering moving were more often reported as intending to move abroad. Among respondents whose household members had moved (n=27), 15 said they had moved to the capital, 7 to another country, and 4 to a rural village.⁵⁸ By contrast, among those household members who were considering moving at the time of data collection (n=74), 48 said their household would go to another country, 11 were unsure, 10 chose the capital, and 5 selected a secondary city. Among those who indicated that they would go to another country (n=48), 31 mentioned Saudi Arabia as the destination.⁵⁹ This could indicate either changing mobility patterns over time or that the aspiration to migrate abroad is stronger than the ability to do so, and that some who need to move have to adjust their plans to stay in the country. Key informants also mentioned that those who can afford to do so often leave Aden seasonally during the hottest part of the year.⁶⁰

Both younger men and whole families move from Aden, according to respondents. Sixteen out of 27 respondents who said that a household member had moved in the last ten years said that the whole household had moved, whereas 11 said that only part did so. Key informants explained that those who migrate abroad generally do so as individuals, whereas rural-to-urban movement is often families.⁶¹ Respondents who indicated that only part of the household moved (n=26) indicated that it was adult women (26–65) who were most likely to be left behind 8, followed by children (6) and young adult men and women (18–25) (4).

Thinking about the length of stay, there was a relatively even split between permanent and non-permanent mobility. When asked how long their own household would stay if they moved, 30 of the 77 who were considering mobility were unsure, 27 said permanently, 18 said a few years, and none said a season or less. When asked about household members who had travelled in the past ten years (n=27), respondents were roughly evenly divided, with 14 saying that all those who left returned and 13 saying that they did not.

⁵⁷ Thirteen respondents chose not to answer this question.

⁵⁸ One preferred not to answer.

⁵⁹ Other destinations mentioned were Canada, Egypt, Germany, Kenya, New Zealand, Qatar, Sweden, Switzerland, Turkey, United Arab Emirates, and the USA, N=48, Q72.

⁶⁰ Key informant interviews.

⁶¹ Key informant interviews.

Impact of climate-related events on mobility

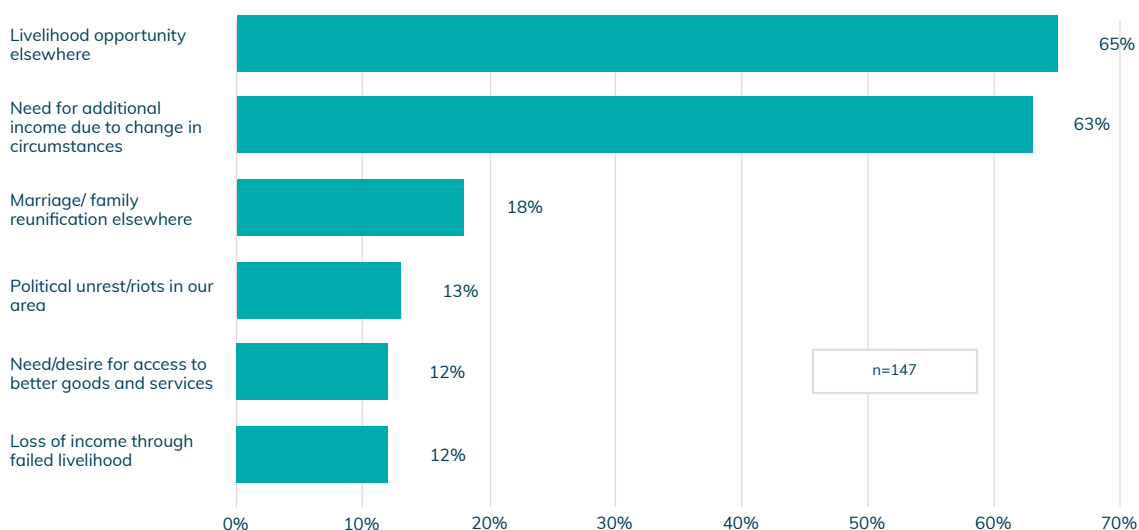
While economic drivers were far more frequently cited than climate stressors as reasons for mobility, these factors can be closely interlinked, particularly for individuals whose livelihoods are directly affected by environmental change or who lack the resources to recover from climate-related shocks.

The most commonly cited reasons for community members moving (n=147)⁶² were the pursuit of livelihood opportunities elsewhere (65%) and the need for additional income due to changes in circumstances (63%). Other frequently mentioned drivers included marriage or family reunification (18%), political unrest or riots (13%), and lack of access to goods and services (12%). In contrast, only a small minority of respondents cited climate-related factors such as water shortages (8%), extreme temperatures (2%), and unpredictable rains (1%).

However, the qualitative findings suggest that climate hazards are closely connected to economic vulnerability. One displaced fisherman from Seera, a peninsula off Aden, described how he was forced to move after flooding destroyed his home: “We coexisted with the climate until the floods came and destroyed my dwelling. I had to move to a safe place.” He also explained that declining profits from fishing had left him unable to rebuild, showing how economic constraints can amplify the impact of climate shocks. Others noted that drought and extreme heat have made agricultural livelihoods increasingly precarious. This reflects how climate hazards often act as indirect drivers, by undermining livelihoods and deepening economic hardship.

When asked how past experiences of climate hazards might influence future mobility decisions, most respondents said they would not be affected. Among those who were reportedly impacted by extreme temperatures (n=85), 78% said that recurrence would not influence their mobility decisions at all, while only 2% said it would affect their decision “a lot.” Similarly, of those who reported impacts of unpredictable rainfall (n=140), 76% said it would not influence their decision-making, and just 1% stated that it would have a major impact.

Figure 6. Most reported drivers of mobility among community members⁶³



62 Respondents were asked to assess how common it was for people in their community to move out of Aden, using a scale from 1 (very common) to 5 (very uncommon). The figure (n=147) refers to those who did not select “very uncommon” or decline to answer. These respondents were then asked to identify the main reasons why members of their community had moved.

63 The subset represents those who did not say that mobility within their community is very uncommon or declined to answer that question. Respondents could select up to five answers. Other reasons cited by respondents included loss of income or support due to death or illness of loved ones (9%), water shortages (8%), increased threat of violence, including conflict, terrorism, or crime (8%), overpopulation or demographic changes (7%), need or desire for better education (6%), need or desire for better health facilities (5%), windfall or increase in income enabling migration (4%), desire for new experiences (3%), eviction or threat of eviction (3%), extreme temperatures and their effects (2%), easing of restrictions on movement (2%), and 1% each for pollution, easing of social or cultural pressures to stay, unpredictable rains, storm and its effects, discrimination, and household members feeling unable to act freely. Nine percent reported did not identify any specific reasons and 5% did not know.

Many focus group participants and interviewees downplayed or dismissed the role of climate change in influencing the decision to move. While climate hazards were acknowledged, strong attachments to place and a sense of resilience appeared to encourage staying despite environmental challenges. As one participant put it: “Diseases, heat, rain, and floods are not reasons for me to migrate. Only life-threatening disasters and wars are the main reasons for migration.”⁶⁴ One interviewed woman who had always lived in Aden said: “I have a job that’s sufficient for a living. It’s my homeland, and I know how to adapt and live here. I own my home, and there’s no war or conflict currently. Climate change doesn’t significantly contribute to people’s movement here. Increasing temperatures aren’t a primary reason for migration. So far, I haven’t heard of anyone migrating due to rising temperatures.”⁶⁵

Overall, respondents reflected a generally positive view of mobility outcomes when it occurred. Among the 27 respondents who reported that at a member of their household had moved, 18 stated that the move helped improve the individual’s situation overall and in achieving their main goals (12 said it helped somewhat, and 6 said it enabled them to achieve their goal), while only 6 said mobility had not improved their situation at all.

Key informants and interviewees highlighted the challenges people face after moving, particularly when environmental conditions or broader structural barriers limit opportunities in both origin and destination areas. Some interviewed returnees from urban areas mentioned that inhospitable climatic conditions had driven them back to their areas of origin. Others pointed to hostile reception conditions abroad, particularly in Saudi Arabia, where restrictive immigration policies reportedly forced many to return. One focus group participant explained: “After strict decisions by the Saudi government, many of these migrants returned. They faced psychological struggles as they couldn’t find jobs and were unable to support their families.” Mobility was also sometimes framed as an investment, with failure to succeed carrying social stigma. As one participant put it: “People decide to migrate if the conditions are bad and they have enough money for the move... However, after moving, they realise the high prices, high cost of living, and increased rent, making it difficult for them to migrate again.”⁶⁶

Summary

Aden is highly exposed to climate hazards, with the vast majority of respondents reporting that they had experienced at least one climate-related event, most commonly unpredictable rainfall or extreme heat, over the five years preceding data collection. Migrants were among the most affected, particularly those coping with prolonged displacement and limited assistance.

Nevertheless, respondents demonstrated significant resilience. Most characterised the impacts of climate hazards as moderate rather than severe, and most households reported being able to meet their basic needs and access essential services, likely facilitated by greater service availability in the city. The relative stability of Aden in recent years, compared to other parts of the country, along with the diversity of livelihood opportunities and urban infrastructure, may also help explain these outcomes.

In this context, mobility intentions were shaped both by opportunities and constraints. While there was substantial interest in moving, most respondents expressed a desire to stay voluntarily. Among those considering leaving, a majority cited a lack of financial means as a key barrier, resulting in a significant group of involuntarily immobile individuals.

Looking ahead, the balance between resilience and mobility will depend heavily on the availability of support and resources. If at least moderate support and resources remain accessible, a majority of the population is likely to stay in place. However, if climate hazards intensify and assistance and resources decline, both voluntary movement and involuntary immobility are likely to increase, potentially placing additional pressures on vulnerable households.

64 Focus Group Discussion young men.

65 Interview with woman.

66 Focus Group Discussion IDP men.

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