



Living with Climate Risk: Mobility & Resilience in Somalia

Understanding adaptation, migration, and displacement in communities facing high climate risks.

Learning Brief - June 2026



Sarah Easter - CARE Germany

Executive Summary

Climate-related shocks and stresses, such as droughts and floods, are intensifying the existing crisis of internal displacement in Somalia. In 2023 alone, 2.2 million Somalis were displaced. Expectations about women's and men's roles, clan relationships, and access to informal credit further complicated how families and individuals were able to respond to climate-related pressures. In Somalia, fewer than 1% of households access formal financial services; the dominant credit channel is informal lending from local traders and Micro, Small and

Medium Enterprises (MSMEs).

The breakdown of these informal credit relationships is a key household-level pre-displacement signal (World Bank, 2023; IMF, 2024).

This brief draws on five district-level Displacement Drivers Assessments (DDAs) focused on the distinct experiences of women and men, a cross-district CARE Somalia Learning Brief, and national data from the World Bank's Country Climate and Development Report (CCDR) on Somalia to provide an analysis of the drivers and patterns of displacement in the country. To address these challenges, the brief recommends prioritizing integrated interventions designed around the distinct needs, responsibilities, and social constraints experienced by women and girls, strengthening Anticipatory Action (AA) and climate resilience at both community and policy levels. By informing CARE program design, supporting policy engagement, and guiding resource mobilization, these recommendations aim to reduce displacement risk and improve outcomes for Somali populations facing the greatest risks of displacement.

The brief presents an "evidence narrative" that connects internal movement among Somalis with the factors that shape displacement following the impacts of climate shocks. It is written for climate-finance and anticipatory-action donors, Somali federal and sub-national governments, peer INGOs, and the CARE network.

Key findings:

- 1. Displacement in the five profiled districts follows a four-stage progression, observable months before actual movement.
- 2. Three measurable thresholds mark the points at which households cross from habitual residence into displacement: water affordability, livelihood viability, and informal trader credit withdrawal.
- 3. Movement is not uniform within a household; young women aged 18 to 35 are systematically the most constrained, frequently remaining in the home while other household members begin to move.
- 4. The four-stage progression and three thresholds are consistent across the five districts, while dominant stressors and the speed of progression vary by district.
- 5. Pre-displacement programming designed around household-level signals fits within the provisions and language of Somalia's existing climate-policy infrastructure (NCCP, NDC 3.0, NAP) and climate-finance pathways.

These findings suggest that programs using household economic and social warning signs to act before displacement occurs are not yet funded or implemented through Somalia's climate-finance system. The evidence in this brief makes a strong case for including them.

Key Terms	Definition
Internal Displacement	Movement in which individuals or groups are forced or obligated to leave their habitual residence: particularly as a result of conflict, violations of human rights, or natural & man-made disasters. These persons do not cross internationally recognized state borders. (UNHCR)
	Movement of individuals or groups away from their habitual residence, either across international

Migration	borders or within their state. Encompasses all movement: whether refugees, displaced persons, economic migrants, family reunification, etc. (IOM)
Mobility	Encompasses all forms of movement among people. In the context of climate & environmental change, human mobility encompasses displacement (forced movement), migration (predominantly voluntary), and planned relocation. (IOM)
Climate Shock	Climate-related events, sudden-onset (floods, cyclones, storms) or slow-onset (droughts, sea-level rise) that disrupt the normal functioning of households, livelihoods, & ecosystems – eroding the resilience of affected populations. (FAO) (IPCC)
Anticipatory Action (AA)	Programming which aims to act ahead of predicted hazards to prevent or reduce acute humanitarian impacts before they unfold. Interventions triggered once a pre-agreed forecast threshold is crossed. (OCHA) (FAO)

Background and Context

Somalia ranks among the countries facing the greatest climate-related risks, placing 164th out of 187 countries in the World Bank's index of climate risk and readiness, and hosts 3.5 million internally displaced individuals as recurring droughts and floods accelerate internal migration (World Bank CCDR, 2026). In 2023 alone, climate shocks displaced 2.2 million Somalis.

Traditional early warning systems track the onset of weather hazards, but movement is not always generated by sudden, hazard-triggered events. CARE Somalia's assessment evidence indicates that displacement is more often the final stage of a household process that begins months earlier and is shaped by economic pressures, social relationships, and the different roles and constraints faced by women and men (CARE Somalia Cross-District Learning Brief, 2026). Reading traditional hazards alone misses the pre-displacement social and network conditions on the ground, and neglects the window in which support can still help families remain safely in their communities.

Learning Question

How do climate-related pressures influence decisions about whether and when Somali households move? How

do clan networks, expectations about the roles of men and women, and credit relationships shape those decisions?

Assessment & Data

The following brief draws on a Displacement Drivers Assessment (DDA) focused on the distinct experiences of women and men, carried out by CARE Somalia in five districts, with funding from the Royal Danish Embassy to Somalia and in collaboration with Saferworld, the World Food Programme, iRise Hub, WARDI, and WAAPO.

The DDA is one of CARE's established approaches for understanding displacement dynamics and strengthening resilience to prevent displacement. As a unified framework, it integrates CARE's climate risk and capacity analysis methods, Saferworld's conflict analysis approach, and the International Organization for Migration's historical migration insight modules. Climate-related pressures, livelihoods, conflict dynamics, and the different experiences of women and men are assessed together rather than separately or in parallel. The framework helps identify displacement pressures that affect men and women differently and informs targeted interventions that enable households and communities to build resilience and scale up sustainable livelihood and adaptation initiatives. The DDA was piloted across five districts: Afgoye (Lower Shabelle), Beledweyne (Hiran), Bardhere (Gedo), Erigavo (Sanaag), and Las'anod (Sool), between late 2025 and early 2026.

Field assessments pursued five primary objectives:

1. Identify the climate, livelihoods, and conflict-related stressors that intensify displacement risk in each village.
2. Map relational power, governance dynamics, and community expectations around men's and women's roles that shape exposure.
3. Locate the tipping points at which accumulated stress translates into a decision to move.
4. Capture how households decide to move, stay, or return.
5. Translate village-level evidence into program design choices, anticipatory-action triggers, and policy positioning that prevent displacement.¹

The Staged Pattern & Three Thresholds Before Displacement

The DDA assessment identifies a four-stage progression from climate stress to displacement:

(1) stress absorption, (2) asset erosion, (3) social support breakdown, and (4) movement.

In Las'anod, communities described a fifth, post-movement stage in which displacement does not resolve household hardship but transfers it into peri-urban settlements. Here, services are weaker and land tenure is contested (CARE Las'anod Profile, 2026). Individuals and families appear to move through similar stages across the five districts, although the pace and primary pressures vary. The relevant design implication is that the unit of analysis for anticipatory action is not solely weather hazards, but where a household sits along this stress progression.

Three Pre-Displacement Thresholds:

Within the four stages of progression, the DDA evidence locates three thresholds at which households move from coping into displacement. Each threshold is observable through household-level market or relational

signals, and each maps to a specific stage in the progression: water affordability appears during stress absorption, livelihood viability during asset erosion, and trader credit withdrawal at social support breakdown.

1) **Water affordability:**

The earliest threshold occurs when the cost of trucked water rises above approximately half of a household's daily wage. At that point, household budgets cannot meet the most basic need, and families begin to sell any productive assets to maintain water access. In Bardhere and Beledweyne, water points were among the most consistently named hotspots for stress, with both districts recording sharp seasonal price escalation during the late dry season (CARE Bardhere Profile, 2026; CARE Beledweyne Profile, 2026).

2) **Livelihood viability:**

The second threshold is crossed at the point of asset erosion. For pastoralist households this typically appears as herd collapse: i.e., when livestock numbers fall below the minimum amount for adequate reproduction. For farming households it appears as seed consumption: when families eat the inputs they would otherwise plant in the next season (CARE Bardhere Profile, 2026; CARE Beledweyne Profile, 2026). Both signals predate movement by several weeks and are visible to local extension workers, traders, and savings group monitors. Because these are visible warning signs, cash assistance or replacement agricultural inputs may still help households remain safely within their communities. Further analysis is required to verify whether intervening at this stage costs less per household than responding after displacement.

3) **Trader credit withdrawal:**

The third threshold is the withdrawal of informal credit by local shopkeepers and small lenders. Across the five districts, traders extend credit to households under stress until their own exposure becomes unsustainable. Once that credit is withdrawn, movement frequently follows within 48 to 72 hours (2 to 3 days) (CARE Somalia Cross-District Learning Brief, 2026). This signal is the most operationally actionable of the three: it indicates that the window for in-place support has effectively closed, and that programming should pivot from prevention to migration and reception support.

Reading the three thresholds together suggests that anticipatory-action triggers should be calibrated to household-level economic relationships, not solely to hazard onset.

Age & Social Expectations Shaping Movement

All members of a household do not necessarily move at the same time. The DDA evidence demonstrates that people move in a particular order, shaped by labor markets, care responsibilities that fall disproportionately on women, and clan expectations about who can move and when (CARE Somalia Cross-District Learning Brief, 2026).

Young men aged 18 to 35 typically move first, often in search of urban wage labor or pastoralist herd support roles. Adult men aged 36 or greater delay movement in an effort to protect remaining household assets, such as livestock and standing crops. This can separate them from women and children in the household. Adult women aged 36 and above are normally the last group to move; their movement is most often triggered by acute child hunger or the breakdown of women-led support networks (CARE Beledweyne Profile, 2026; CARE Bardhere Profile, 2026). Young women aged 18 to 35 are the most constrained: restrictions on independent travel, safety risks that disproportionately affect women along movement routes, and clan expectations about

who can move and when reduce their options, leaving them in many cases unable to move within collapsing households (CARE Las'anod Profile, 2026).

Within a single displacing household, different members may sit at three or four distinct points within the progression stages. Programming designed around only one household-level trigger risks missing the most constrained group inside the household. Both anticipatory-action triggers and program design must account for within-household variation, since the people at greatest risk are often the least able to move and the least visible to a single household-level signal. In the profiled districts, the least visible are typically young women aged 18 to 35.

Five-District Comparison

The four-stage progression and the three thresholds are observable across all five districts evaluated in CARE Somalia programming. The dominant stressors and the exact sequencing of stages, however, vary by district (CARE Somalia Cross-District Learning Brief, 2026). Each district profile names a distinct pathway pattern, summarized below.

Afgoye (Lower Shabelle): Security-mediated economic pathway - In Afgoye's five villages (Adan Wallow, Balbaley, Jaran, Riis, Balguri), Al-Shabaab checkpoints and informal taxation intersect with drought and economic collapse. Al-Shabaab checkpoints function as both an economic extraction mechanism and a movement constraint; in turn, they produce reactive, survival-driven displacement primarily during the late dry season (CARE Afgoye Profile, 2026). The pattern indicates that security actors can accelerate progression from asset erosion directly into movement, compressing the social support breakdown stage and shortening the window for in-place support.

Beledweyne (Hiran): Governance-exclusion pathway - In Beledweyne's five villages (Deefoow, Kabxanley, Hilikilyo, Baarey, Haaracdey), Shabelle River flooding stacks with drought stress. Some clans face additional barriers, including restricted access to land and exclusion from aid distributions. The four-stage progression is uniform across villages: poor rains lead to escalation -- men migrate, women then shoulder additional burdens, networks become exhausted, and movement follows (CARE Beledweyne Profile, 2026).

The case suggests that governance exclusion functions as a multiplier on environmental stress, particularly for members of clans facing exclusion and people with disabilities. Compounding governance exclusion, the ongoing conflict between Al-Shabaab and Ma'awisley clan militias has added a further layer of pressure on rural communities in Hiran. Much of the rural population has been directly mobilized in the federal offensive against Al-Shabaab, and Al-Shabaab's retaliatory targeting of civilian populations and infrastructure has driven significant rural-to-peri-urban displacement as households seek safety in Beledweyne town and other urban centers (CARE Beledweyne Profile, 2026).

Bardhere (Gedo): Dual-shock pathway - In Bardhere's five villages (Shimbirole West, Sarinley, Beled Amiin, Beela Oodey, Bula Fur), households face the compounding effects of slow-onset drought and rapid-onset Jubba River flooding. The two shocks operate on different timescales but converge in displacement decisions, producing cumulative deterioration with limited recovery windows between events (CARE Bardhere Profile, 2026). The Bardhere evidence indicates that dual-shock contexts demand programming responsive to both prolonged stress and rapid-onset disruption.

Erigavo (Sanaag): Market-collapse pathway - Cross-district evidence describes Erigavo as the case in which trader credit withdrawal and market disruption are the dominant drivers, with displacement triggered primarily by the third threshold described above (CARE Somalia Cross-District Learning Brief, 2026). The Erigavo trajectory affirms that the third threshold can function as a standalone activation point in contexts where

households are more deeply integrated into informal market credit and where direct climate and conflict stressors are comparatively muted. The case thus reinforces the value of informal credit signals as an actionable trigger in their own right, beyond their function as the final stage of the four-stage progression.

Las'anod (Sool): Mobility-restriction pathway - In Las'anod's five villages (Adhi-cadeeye, Dalyare, Dharkeyn-Genyo, Kalabaydh, Yagoori), landmines and unexploded ordnance (UXO) contamination along grazing routes, clan competition, and the 2022 to 2023 armed conflict in which Dhulbahante clan militias contested Somaliland forces over the political affiliation and governance of the Sool region have constrained pastoralist mobility. The progression here includes the fifth, post-movement stage in which displacement transfers hardship rather than resolving it, with peri-urban settlements offering weaker services and contested land tenure (CARE Las'anod Profile, 2026). The case indicates that conflict overlays on climate stress can extend the four-stage progression into the post-movement stage, in which displacement transfers hardship rather than ending it.

Evidenced together, the five districts suggest that the staged progression and three thresholds offer a coherent analytical frame, while local conditions determine how quickly households move through each stage and where support is needed first.

4. Implications for Programming

The assessment evidence has three sets of implications for the institutions positioned to act on it: humanitarian and development actors designing anticipatory-action programmes, Somali federal and sub-national planning authorities, and climate-finance investors building portfolios in fragile contexts. The implications below are organised thematically, with relevant actions for each audience.

Anticipatory Action Systems: from hazard to household signals

The four-stage progression and three thresholds offer a framework for moving anticipatory-action triggers beyond hazard-only forecasting. The CERF Anticipatory Action pilot in Somalia, activated for the first time in June 2020, demonstrated that pre-arranged finance triggered against forecast indicators can reach hundreds of thousands of Somalis and mobilize substantially larger response funding (OCHA, 2021). Independent evaluation of the activation found that early IOM-led borehole rehabilitation improved household finances and was associated with reduced migration in the targeted communities (OCHA, 2021). FAO's review of more than 50 anticipatory-action interventions globally estimates a return of USD 0.8 to USD 7 in benefits and avoided losses for every USD 1 invested (FAO, 2023). More recent peer-reviewed analysis from the Greater Horn of Africa supports the logic: cumulative climate stress, rather than a single hazard event, is the more reliable predictor of household-level departure (Bertoli et al., 2024; Letta et al., 2023). The evidence from these districts indicates that the same anticipatory-action logic, applied to household-level economic and relational signals rather than only to hazard onset, could give programs several additional weeks to help families remain safely within their communities.

Implications for programming:

1. Adjust AA triggers to the three thresholds: water price exceeding 50% of a daily wage, livelihood viability collapse signals (herd reproduction below threshold, seed consumption), and trader credit withdrawal.
2. Sequence interventions to match the four-stage progression rather than activating a single response on hazard onset.

-
3. Pair hazard forecasts with district-level economic monitoring (water price data, livestock market indicators, informal credit availability).
 4. Build a learning agenda comparable to the 2020 CERF pilot Monitoring and Evaluation (M&E) design so that subsequent activations can be evaluated against the household-signal triggers introduced.

Responding to differences within Households

Findings about age and the different constraints faced by women and men have direct implications for programming. The climate-mobility literature describes communities that are facing severe effects from climate-related shocks yet are limited in their ability to move, often because of economic or social constraints (IOM-UNEP, 2021).

Across Somalia, women and children make up roughly 80% of the displaced population, and analysis focused on women and girls indicates that women's experiences of displacement are shaped distinctly by social expectations, restrictions on independent travel, and safety risks along movement routes (Oxfam, 2017). The DDA evidence on young women aged 18 to 35 fits this pattern: the group at greatest risk in the staged progression is also the least able to move, and the least visible to a single household-level trigger. Programming designed solely for the head of household risks missing this group.

Implications for programming:

- Build within-household differentiation into AA design by separating triggers, eligibility, and delivery pathways for the most constrained group.
- Co-design AA cash and in-kind delivery with women-led savings groups and protection actors operating across the five districts.
- Track results separately by age and sex so programs can assess who receives support and how safety outcomes differ among men, women, girls, and boys.
- Account for clan expectations about movement when planning routes and designing reception facilities for any displacement-response component.

Policy Alignment and Climate Finance Pathways

Somalia's policy infrastructure provides entry points for the assessment findings. The National Climate Change Policy (NCCP, 2020) explicitly includes Early Warning and Early Action, displacement, and social protection within its Disaster Risk Reduction provisions, with decentralised implementation through regional and local government (NCCP, 2020; IOM, 2023).

The country's NDC 3.0, submitted in September 2025, identifies displaced people, women, young people, and persons with disabilities as groups facing heightened risks and calls for conflict-sensitive approaches across planning, implementation, and monitoring, particularly in agriculture and water management (Government of Somalia, 2025). The National Adaptation Plan process, supported by the Green Climate Fund and UNDP, is currently building state-level adaptation frameworks; the district pathway patterns offer a ready-made evidence base for sub-national NAP implementation. The Somali Disaster Management Agency (SoDMA), as the lead national institution for disaster risk management coordination, joined the Risk-informed Early Action Partnership in 2023 and is currently developing a national framework for drought anticipatory action with WFP support (WFP, 2025).

Climate finance pathways already exist into which CARE Somalia's evidence can be positioned. The GCF country

programme includes major active investments in agricultural resilience and multi-hazard early warning systems, with FAO and UNDP as the lead implementing entities (GCF, 2024). The CERF Anticipatory Action window provides a tested pre-arranged finance mechanism with a documented Somalia activation history and an existing learning agenda (OCHA, 2021). The assessment evidence offers these instruments a measurable, district-level basis for action on pre-displacement programming, distinct from both reactive humanitarian response and broader resilience investment.

Implications for programming:

- Map DDA findings to NCCP 2020 DRR objectives (Early Warning and Early Action, displacement, social protection) and to NDC 3.0 targets for groups facing heightened risks. Coordinate with the Ministry of Environment and Climate Change.
- Position the DDA methodology as an evidence input into Somalia's NAP state-level adaptation frameworks, particularly for the five districts profiled.
- Engage directly in the development of SoDMA's drought and flood AA framework. Offer the staged-progression and three-threshold framework as inputs.
- Build the case for a dedicated GCF or CERF AA window for pre-displacement programming, drawing on the demonstrated returns from FAO's global AA evidence and the 2020 Somalia CERF pilot.
- Sequence donor engagement: anticipatory-action and climate-finance investors first, given alignment with their stated priorities; bilateral and multilateral development partners second, for medium-term adaptation programming.

Across all three areas of implication, CARE Somalia evidence suggests that pre-displacement programming is most viable when household-level triggers, within-household differentiation, and existing Somali policy and finance instruments are aligned in a single design.

5. Recommendations & Conclusion

1. Trigger anticipatory action on household-level signals, not only hazard onset:

Anticipatory-action triggers should be calibrated to the three observable thresholds identified in the assessment evidence: water affordability collapse (cost exceeding 50% of a daily wage), livelihood viability collapse (herd reproduction failure, seed consumption), and trader credit withdrawal. These signals are measurable through existing market and economic monitoring infrastructure. In the assessed districts, they were observed several weeks before movement in some cases. Programs that act on social and economic signals, rather than only on hazard forecasts, can meaningfully extend the window in which families can be supported to remain safely in their communities (Bertoli et al., 2024; FAO, 2023).

2. Differentiate among household members:

A single household-level trigger is likely to miss people facing the greatest risks. AA design should incorporate separate triggers, eligibility pathways, and ways of delivering support for young women aged 18 to 35, who often face the greatest restrictions on movement well before a household-level signal fires. Co-design with women-led savings groups, monitoring that tracks results separately by sex and age, and protection-actor coordination should be built into AA programming from the outset, not appended after the fact (IOM-UNEP, 2021; Oxfam, 2017).

3. Embed the GDDA evidence within Somalia's existing policy infrastructure:

The NCCP (2020), the NDC 3.0 (2025), the NAP process, and SoDMA's emerging drought and flood AA frameworks already provide entry points for displacement-focused programming. The district pathway patterns and three-threshold framework should be positioned as a sub-national evidence input for NAP state-level adaptation frameworks, NCCP DRR sub-objectives, and SoDMA's national AA framework development under REAP. This is alignment work, not parallel methodology promotion.

4. Position pre-displacement programming as a measurable entry point for climate finance:

The Green Climate Fund, the CERF Anticipatory Action window, and FAO/WFP-led AA channels all have active Somalia portfolios. Pre-displacement programming is not yet a named line in any of these instruments. CARE Somalia and partners should advance the case for a dedicated pre-displacement window or sub-line, drawing on the documented returns from the 2020 CERF Somalia activation, FAO's evidence on AA returns to investment, and the district-level threshold framework as a measurable basis for trigger design (OCHA, 2021; FAO, 2023; WFP, 2025).

Conclusion

With the core learning question in mind, the assessment evidence indicates that:

1. Displacement in the five profiled districts unfolds through a recurring four-stage progression, observable months before movement occurs.
2. Three thresholds, water affordability, livelihood viability, and trader credit withdrawal, mark the points at which households cross from coping into displacement.
3. Movement is not uniform across household members; young women aged 18 to 35 are systematically constrained, frequently remaining in the home while other household members begin to move.
4. The staged progression and three thresholds are consistent across five distinct pathway patterns, while dominant stressors and the speed of progression vary by district.
5. Pre-displacement programming designed around household-level signals fits directly within Somalia's existing climate-policy infrastructure and within currently active climate-finance pathways.

The findings suggest that pre-displacement programs may be more effective when household-level triggers, within-household differentiation, and existing Somali policy and finance instruments are designed and financed together. CARE Somalia's DDA methodology, the five-district evidence base, and the implementing partnership offer a credible basis for investment in that alignment, distinct from both reactive humanitarian response and broader resilience programming. Pre-displacement programming is not yet a named priority in Somalia's climate-finance architecture; the evidence assembled here suggests it should be.

Long-term resilience for displaced populations in Somalia is most viable when climate policy instruments, anticipatory action triggers, and household differentiation are designed and financed together.

Acknowledgements

The brief above was written by Emerson Keen, with thanks to Karl Deering of CARE US's Resilient Futures team,

Abdirizak Adan of CARE Somalia, and the field teams and community participants who contributed to the Displacement Drivers Assessments across Afgoye, Beledweyne, Bardhere, Erigavo, and Las'anod.

Citations

- Bertoli, S., et al. *Unpacking the role of climate variability on displacement in the Greater Horn of Africa*. PLOS Climate (2024). <https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000594>
- CARE Somalia. *Unpacking the Multifaceted Drivers of Displacement in Somalia and Somaliland: Cross-District Learning Brief*. (2026).
- CARE Somalia. *Afgoye District Displacement Profile*. (2026).
- CARE Somalia. *Bardhere District Displacement Profile*. (2026).
- CARE Somalia. *Beledweyne District Displacement Profile*. (2026).
- CARE Somalia. *Las'anod District Displacement Profile*. (2026).
- FAO. *Climate Change and Food Security: A Framework Document*. Food and Agriculture Organization (2008). <https://www.fao.org/4/k2595e/k2595e00.pdf>
- FAO. *Impact of Disasters on Agriculture and Food Security 2023, Section 4.2: Return on Investment of Anticipatory Action Interventions*. Food and Agriculture Organization (2023). <https://openknowledge.fao.org/server/api/core/bitstreams/19764bec-3b8e-46a6-8680-1dbab43bcaa/content/impact-of-disasters-on-agriculture-and-food-2023/anticipatory-action-interventions.html>
- Federal Government of Somalia. *National Climate Change Policy*. Ministry of Environment and Climate Change (2020). <https://moecc.gov.so/wp-content/uploads/2024/10/Somalia-National-Climate-Change-Policy-EN.pdf>
- Federal Government of Somalia. *Nationally Determined Contribution (NDC 3.0)*. Submitted to UNFCCC, September 2025. [https://unfccc.int/sites/default/files/2025-06/Somalia%20NDC%203.0 Submitted to UNFCCC Final.pdf](https://unfccc.int/sites/default/files/2025-06/Somalia%20NDC%203.0%20Submitted%20to%20UNFCCC%20Final.pdf)
- Georgetown University, UNHCR, and International Organization for Migration (IOM). *A Toolbox: Planning Relocations to Protect People from Disasters and Environmental Change*. (2017). <https://www.unhcr.org/sites/default/files/legacy-pdf/596f1bb47.pdf>
- Green Climate Fund. *GCF approves transformative climate resilience projects in Somalia and Iraq*. (2024). <https://www.fao.org/newsroom/detail/green-climate-fund-approves-funding-worth-over--130-million-for-fao-led-projects-in-somalia-and-iraq/en>
- Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press (2022). <https://www.ipcc.ch/report/ar6/wg2/>
- IOM. *Glossary on Migration*. International Migration Law No. 34. International Organization for Migration (2019). https://publications.iom.int/system/files/pdf/iml_34_glossary.pdf
- IOM. *Study on Environmental Migration in Climate Change Policy in Somalia*. International Organization for Migration (2023). [https://environmentalmigration.iom.int/sites/g/files/tmzbd1411/files/documents/2023-04/Somalia_Policy%20review Environmental%20Migration%20in%20Climate%20Change%20Policy%20in%20So malia.pdf](https://environmentalmigration.iom.int/sites/g/files/tmzbd1411/files/documents/2023-04/Somalia_Policy%20review_Environmental%20Migration%20in%20Climate%20Change%20Policy%20in%20Somalia.pdf)
- IOM-UNEP. *Identifying Climate Adaptive Solutions to Displacement in Somalia*. (2021). <https://environmentalmigration.iom.int/sites/g/files/tmzbd1411/files/documents/Identifying%2BClimate%2BAdaptive%2BSolutions%2Bto%2BDisplacement%2Bin%2BSomalia%2B-%2BIOM-UNEP%2B-%2BFinal%2BDraft%2B-%2B19FEB2021.pdf>
- Letta, M., et al. *Leaving Home: Cumulative Climate Shocks and Migration in Sub-Saharan Africa*. Environmental

and Resource Economics (2023). <https://link.springer.com/article/10.1007/s10640-023-00826-x>

OCHA. *Anticipatory Action*. United Nations Office for the Coordination of Humanitarian Affairs (n.d., accessed 2026). <https://www.unocha.org/anticipatory-action>

OCHA. *Anticipatory Action in Somalia: Learning from 2020*. United Nations Office for the Coordination of Humanitarian Affairs (2021). <https://www.unocha.org/anticipatory-action-somalia-learning-2020>

OCHA. *Guiding Principles on Internal Displacement*. United Nations Commission on Human Rights, E/CN.4/1998/53/Add.2 (1998). <https://www.unocha.org/publications/report/world/guiding-principles-internal-displacement-0>

Oxfam. *Drought, Displacement and Livelihoods in Somalia/Somaliland: Time for gender-sensitive and protection-focused approaches*. (2017). <https://oxfamlibrary.openrepository.com/server/api/core/bitstreams/8899ab5a-230d-459a-ba27-ec89569c6b85/content>

Somali Disaster Management Agency (SoDMA). *About Us*. (2024). <https://sodma.gov.so/eng/>

WFP. *Anticipatory Action in Somalia: Evidence and Lessons Learned from 2023 and 2024 Activations*. World Food Programme (2025). <https://www.wfp.org/publications/2025-anticipatory-action-somalia-evidence-and-lessons-learned-2023-and-2024>

World Bank. *Somalia Country Climate and Development Report*. (2026).