Anticipatory Action

response for floods in Somalia

Executive Summary

Context and Vulnerability

Beletweyne, located in the Hiran region, stands at the forefront of the climate crisis, plagued by a cycle of conflict, drought and flooding exacerbated by the Shabelle River's topography and unplanned urbanisation. Following devastating floods in May 2023 that affected 90% of the town, the region faced a high risk of El Niño-induced flooding later in the year. A vulnerability assessment conducted by the Danish Refugee Council (DRC) and local authorities identified 20 IDP sites as highly susceptible to flooding due to river breakages and limited coping strategies.

Historically, El Niño has wrought significant impacts on Somalia. In 1997–1998, it brought devastating floods, resulting in approximately 2,000 casualties, the displacement of 250,000 people, and substantial damage to livestock and stored harvests. In October 2015 and 2019, heavy rainfall triggered flooding that affected 145,000 people. That same year, El Niño caused a severe drought, especially in Puntland and Somaliland, where over 220,000 people urgently required lifesaving assistance. In early May 2023, due to heavy rainfall in Ethiopia, the Shabelle River overflowed in Beletweyne. This natural disaster wreaked havoc on roughly 90% of the town, including vital infrastructure. The consequences were profound: essential services faltered, hospitals ceased operation, and prices skyrocketed. In the context of Somalia, projections for the Deyr season indicated above-average rainfall due to the convergence of a confirmed El Niño event (90%) and a favorable Indian Ocean Dipole. These forecasts suggest the likelihood of a one-in-a-hundred-year event. Based on current flood waters that might be true. With the intensity, magnitude and severity of floods becoming worse due to climate change, the susceptibility of the community is further heightened by haphazard urban development, which leaves the population extremely vulnerable in the face of these worsening natural hazards.

The Anticipatory Action Response

To mitigate the impact of the forecasted floods, the DRC implemented an **Anticipatory Action (AA)** response targeted at 892 vulnerable households in low-lying areas. The intervention utilised a layered trigger mechanism based on river level data from GloFAS and FAO SWALIM.

Action: Beneficiaries received **unconditional cash transfers** (two instalments of $100), combined with awareness-raising and rain kits.

Timeline: Following a warning on 4 November that river levels were critical, cash was distributed on 8 November—four days before the river overflowed on 12 November, displacing 220,000 residents.

Key Outcomes Evaluations conducted by REACH/Impact Initiative compared DRC's AA beneficiaries with those receiving post-shock early recovery assistance (from Save the Children). The AA approach demonstrated superior outcomes:

- **Food Security:** The average Food Consumption Score for AA beneficiaries more than doubled (from 19 to 45), significantly outperforming the post-shock group. The percentage of households with no food available dropped drastically from **94% to 22%**.
- **Livelihoods and Income:** Average per-person income rose from $6 to $31, and the proportion of low-income households dropped from 100% to 32%.

- **Protection:** Child labour outside the home among AA households fell from 6% to 0%, whereas it increased to 15% in the post-shock group.

Lessons Learned

1. **Effectiveness and Equity:** While AA significantly improved food security and income, the benefits were not evenly distributed; results suggest women and the lowest-income households may have benefitted to a lesser extent, necessitating more equitable design in future interventions.
2. **Sustainability:** Despite immediate improvements, long-term self-reliance remains fragile. Many beneficiaries became more reliant on external support (aid and remittances) post-flood, and malnutrition rates in the area remain critical.
3. **Coordination:** Harmonising cash transfer values ($100) across agencies prevented community conflict. However, differing risk appetites among partners regarding when to "trigger" action created pressure, highlighting the need for clearer, shared data protocols

Content

Context

Beletweyne is at the forefront of the climate crisis. The town has historically been heavily impacted by droughts

Beletweyne at the crux of climate crisis

Historically, El Niño has wrought significant impacts on Somalia. In 1997–1998, it brought devastating floods, resulting in approximately 2,000 casualties, the displacement of 250,000 people, and substantial damage to livestock and stored harvests. In October 2015, heavy rainfall triggered flooding that affected 145,000 people. That same year, El Niño caused a severe drought, especially in Puntland and Somaliland, where over 220,000 people urgently required lifesaving assistance.

The year 2023 witnessed the convergence of drought, conflict (city was under the control of non state armed actors as early as March 2023), and flooding, resulting in the internal displacement of 912,000 people. In early May 2023, due to heavy rainfall in Ethiopia, the Shabelle River overflowed in Beletweyne. This natural disaster wreaked havoc on roughly 90% of the town, including vital infrastructure. The consequences were profound: essential services faltered, hospitals ceased operation, and prices skyrocketed. In the context of 2023, projections for the Deyr season indicated above-average rainfall due to the convergence of a confirmed El Niño event (90%) and a favorable Indian Ocean Dipole. The eventual flood led to one-in-a-hundred-year event where in Beledweyne alone 200,000+ people affected, 4 deaths, or that ~22,000 buildings were flooded.

Notably, Beletweyne, the capital of Hiiraan province in Hirshabelle State, currently shelters approximately 115,536 residents, comprising 19,256 households. This population has grown by 11,682 individuals (1,947 households) since the beginning of 2023 with an IDP population double that of the host community population.

Beledweyne's topography is similar to a flat valley, with higher ground on the fringes of the city where small rivulets drain into the Shabelle river and are seasonal only carrying water when it rains, the elevation gently slopes towards the south side as the river traverses towards the lower regions of Hirshabelle state. The urban layout of Beledweyne is entirely shaped by the course of the Shabelle River, with critical infrastructure located along the river especially where it meanders. The Shabelle River is narrow with deep gorges upto 10 m, the river generally drains the entire region and has enough water flows to support irrigation along the riverine belt of Hirshabelle region. There is an outlet canal that was constructed to accommodate excess water flows and support irrigation but since the last two floods, the canal's capacity to accommodate excess water flows has been completely overwhelmed. Several flood protection activities were previously carried out, such as river embankments and canal constructions in Hawdley, Bilisid, Helakelyo, Bundaweyn, and Bacaadaha.

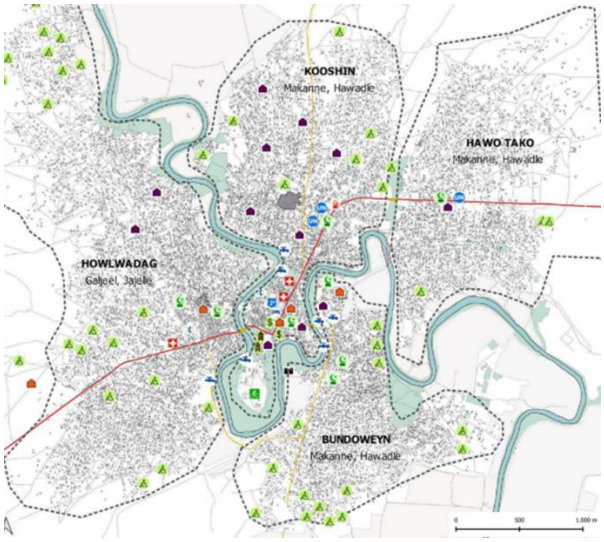
The short span of the rivers from its source in Ethiopia makes the river flow fast. It is only during the rainy seasons (Deyr and Gu) when the river system is flooded.

Urban expansion has defined the city of Beledweyne, the city currently shelters approximately 115,536 residents, comprising 19,256 households. This population has grown by 11,682 individuals (1,947 households) since the beginning of 2023. With a burgeoning population and informal settlements on the rise. The infrastructure has been completely overwhelmed, lack of drainage systems and haphazard planning restrict the flow of water draining back into the river and water remains stagnant for months.

The central part of the city is the most densely populated area hosting crucial urban services such as hospitals, markets, and government facilities. In the last five years, the absence of a planning system has led to a dispersed, organic development spreading eastward along the road connecting the city center to the trade corridor linking Mogadishu and Ethiopia. The rapid urbanization of Beledweyne, coupled with the lack of proper planning, poses a heightened vulnerability for the population, its physical infrastructure, and its economy. This heightened vulnerability stems from the escalating frequency and intensity of floods due to climate change, as the city continues to evolve without a comprehensive urban planning strategy in place.

As the river bank breaches, the city becomes divided, severing access between the eastern and western sides. Beledweyne lacks a sufficient stormwater drainage system, coupled with a predominantly flat topography where the city periphery stands higher than the central urbanized area. This geographical configuration results in prolonged inundation, lasting for weeks, as the natural flow of the river is hindered and water passage is obstructed by urban infrastructure. As the flooded waters remains stagnant, the city teeters on the brink of waterborne disease outbreaks due to the absence of a proper sanitation system, particularly for sewage. First-hand account of the flooding depicts a scenario where sewage water mingles with floodwaters during the city's inundation, further exacerbating the potential health risks.

The convergence of climate-related impacts and poorly planned urbanization amplifies the risks faced by the community, necessitating urgent and comprehensive measures to enhance resilience and mitigate the potential consequences of future floods.



1: Map of Belet Weyne

May 2023 flooding

The scale of humanitarian needs arising from climatic disturbances, conflict, and consequent displacement is staggering. In early May 2023, due to heavy rainfall in Ethiopia, the Shabelle River overflowed in Beletweyne. This natural disaster wreaked havoc on roughly 90% of the town, including vital infrastructure. The consequences were profound: essential services faltered, hospitals ceased operation, and prices skyrocketed.

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Vulnerability assessment

In preparation for the floods, DRC, in collaboration with the Somali Disaster Management Agency (SODMA), the Ministry of Labor and Social Welfare (MOLSA), and Hirshabelle State authorities, conducted an initial rapid needs assessment in flood-prone areas, particularly vulnerable IDPs and host communities in the low-lying areas within Beletweyne district. The aim of the assessment is to identify, map out, and develop a response for potential IDP camps and vulnerable host communities who will bear the greatest impact in the event of the anticipated El Niño floods in October and November.

The assessment team visited all 30 IDP sites currently managed by DRC through CCCM teams and the host communities within the vicinity of those camps. The assessment included evaluating household-level preparedness, access to early warning messages, and the ability to respond and recover. Out of the 30 IDP sites managed by DRC, 20 were identified as highly susceptible to El Niño crises, exhibiting limited coping strategies. The capacities of vulnerable minority and marginalized host communities were also found to be low, necessitating DRC's intervention to reduce the impact and potential loss of lives, properties, and further displacements in the event of the anticipated El Niño floods in October and November. Community-based early warning committees and the Somali Disaster Management Agency (SoDMA) have requested early action to stabilize and protect vulnerable people's lives and build their resilience against the effects of the floods.

Based on observations made in the mentioned sites, there is one main irrigation canal breakage point adjacent to the Webi Shabelle IDP site. Additionally, there are more than five river breakages and weak points that affect Hawatako, Bundaweyn, and Hawlwadag IDP sites. These breakages and weak points are situated at a distance ranging from 10 meters to 100 meters in width, and some are located 10 meters to 2 kilometers from the IDP sites. Urgent intervention is required to mitigate flood-induced displacement.

The flood in May 2023 resulted in various damages, including displacement, loss of lives, disruption of livelihoods, and loss of property and other valuables.

Several flood protection activities were previously carried out, such as river embankments and canal constructions in Hawdley, Bilisid, Helakelyo, Bundaweyn, and Bacaadaha. These activities were implemented by community-based organizations, SCI (Save the Children International), FAO (Food and Agriculture Organization), and DRC (Danish Refugee Council). However, these structures were overwhelmed after the floods.

There were five active Early Warning Committees (EWC), each consisting of seven members. These committees include IDPs, host communities, and villages on the outskirts of Beletweyne district. They have received training and are equipped with communication devices such as mobile phones and solar-charged panels to facilitate information sharing and dissemination.

In addition to the EWCs, there are ten established and trained Disaster Risk Reduction groups comprising IDPs, host communities, and public institutions like schools and universities. These

groups are involved in awareness raising during flooding and participate in climate change-related activities.

To prevent displacements, FAO, DRC, SCI, and community-based organizations (CBOs) are planning to construct concrete barriers or river embankments at canal breakage points that affect the entire population of Beletweyne, including IDPs. However, the villages remain prone to flooding due to several open river breakage points, necessitating the construction of new embankments and the closure of these river outlets to mitigate and reduce the impact of floods. These measures are essential to protect the vulnerable communities and minimize the risk of flood-induced displacement.

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***2**: DRC staff conducting vulnerability assessment*

Anticipatory Action Response and Outcomes

Getting ahead of the flood impacts in November 2023

In order to be aligned with the recommendations of the IASC Reference Group on Risk, Early Warning and Preparedness, and the Framework for Flood-Specific Anticipatory Action in Somalia, DRC, as part of the Somalia Cash Consortium (SCC), aimed to alleviate suffering and generate practical evidence on the positive impact of using unconditional cash transfers (UCT) for mitigate the potential devastating consequences of populations affected by El Niño phenomenon forecast in Beletweyne. Providing UCT between the forecasted hazard and the peak of its effects on the local population can make a significant difference in facilitating support for vulnerable households, prevent the effects and aid in recovery

The anticipatory actions would include:

i) Awareness-raising sessions and
ii) Provision of rain kits
iii) Cash distributions

A total of 892 households in Beletweyne villages namely; Kooshin, Hawatako, Hawl wadag and Bundoweyn would receive two installments of $ 100 each – one before the flood and one after. Following beneficiary identifications, DRC planned to undertake awareness-raising efforts through varied communication channels, culminating in the distribution of cash transfers. The aim was to stabilize purchasing power of the vulnerable people by horizontally scaling up cash transfers, which would reduce the risk of households to face greater food insecurity risks.

In collaboration with the Ministry of Labor and Social Welfare, DRC targeted IDPs and host communities living in low lying flood prone areas. DRC specifically targeted vulnerable households who had not received any assistance and households that had been affected by shocks in the last 2 years, with the following criteria used to prioritize for inclusion with the shock expansion component

- HHs with vulnerable pregnant and lactating women
- HHs with malnourished children under the age of 5 years
- HHs with vulnerable disabled HH members
- HHs from minority and marginalized groups
- HHs with vulnerable elderly HH members
- HHs headed by unaccompanied minors

These households will be identified through HH to HH visits and verified by DRC.

Trigger mechanism

The triggering of the action will be based on the Global Flood Awareness System (GloFAS) forecast system as well as the FAO SWALIM Flood monitoring system. The triggering will adopt a layered approach:

1. River levels exceed 6.5 meters (moderate risk - http://frrims.faoswalim.org/rivers/levels): At this point the lead time for a

potential flood is 7 to 14 days, but still with a fair degree of uncertainty. Actions adopted will be targeted IVR messages to inform communities of the forecasts

2. River levels exceed 7.3 meter OR GloFAS 7-day forecast predicts a 70 percent likelihood of river discharge exceeding a 1-in-2 year return period level (a 1-in-2 year return period level is a river discharge level expected to be reached or exceeded once every 2 years): At this point in time the lead time for a potential flood will be approximately 7 days. Provision of rain kits
3. River levels exceed 7.3 meter AND GloFAS 7-day forecast predicts a 70 percent likelihood of river discharge exceeding a 1-in-2 year return period level (a 1-in-2 year return period level is a river discharge level expected to be reached or exceeded once every 2 years): At this point the lead time for a potential flood is 24 hours to 7 days. Provision of first cash distribution, as well as targeted IVR messages to inform communities

Coordination

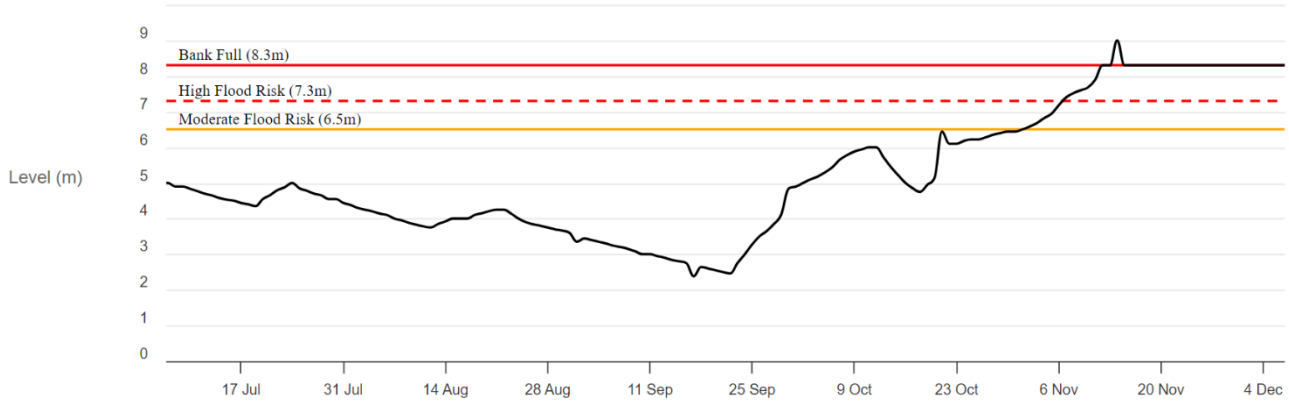
The response was implemented and co-funded with funding from ECHO and existing funding from the SAGAL project under the SCC. Save the Children (SCI) and FAO were also implementing anticipatory flood responses in Beletweyne and the action was coordinated directly with these actors and local authorities. As members of the consortium SCI and DRC harmonised approaches by adopting the same cash transfer value of $100 (in line with the recommendations by CWG) to avoid any conflicts amongst community members.

DRC maintained communication and coordination for smooth implementation with MOLSA, SODMA, MoHDMA, flood task force (jointly chaired by OCHA and MoHDMA), other humanitarian actors and different clusters and UN organizations in Beletweyne to avoid duplication of assistance.

DRC worked together with SODMA and MOHADMA to align DRC's anticipatory action plan with the SODMA framework. DRC also seeked endorsement of the anticipatory action plan from the government. All activities was shared by the flood task force in preparation of the floods with a specific focus on i) harmonising early warning awareness messages to affected populations ii) aligning cash transfer values to avoid any conflicts and iii) avoiding duplication of beneficiaries, iv) stocktaking of assets including boats and other preparedness measure specific to partners capacity to respond. On the ground, DRC worked together with its Early warning early action committee and DRR committee to support with the anticipatory actions. Additionally, DRC and the CMU shared the caseload with emergency responders to ensure that the needs of the affected populations post floods was also met.

Activation

On November 4, FAO issued a flood warning message highlight that water levels along the Shabelle river was only 48 cm from the high flood risk level in Beletweyne and that runoff from forecast moderate rains within the catchment would likely lead a gradual rise in the water levels over the coming three days. On the basis of this warning, internal preparations were initiated for distribution of cash. On November 6, the river levels reached 7.2 meters and on November 7 cross the high risk threshold and reached 7.4 meters. Cash was distributed to the pre-identified households on November 8. On November 12, the river overflowed and flooded large parts of Belet weyne.



3: River levels in Belet Weyne, Source: FAOSWALIM

The flooding swamped up to 90 per cent of Belet Weyne town. By November 14, an estimated 120,000 people had been affected in Belet Weyne, as flooding destroyed homes, properties, and livelihoods. By end-November, 220,000 residents of Belet Weyne have been displaced.[1] Nationally, the number of people impacted by torrential deyr (October to December) seasonal rains and floods across Somalia reached over 2.4 million, according to the Somalia Disaster Management Agency (SoDMA), with over one million displaced and 110 killed in at least 36 districts. The flooding also led to an outbreak of Acute watery Diarrhoea (AWD)/cholera which was particularly severe in Belet Weyne with 616 cases and nine deaths reported in November.[2]

4: DRC Office in Belet Weyne flooded

[1] REACH: Rapid Multi-sectoral Needs Assessment of populations affected by Deyr flooding: Belet Weyne District, Somalia November 2023

[2] OCHA: Somalia Situation Report, March 17, 2024

Outcomes of response

In order to assess the outcomes of the anticipatory action response, REACH/Impact Initiative was assigned to collect baseline and endline data. The data was collected with beneficiaries both from the DRC anticipatory action response and Save the Children early recovery response. Some of the key parameters:

- Percent of households with poor, borderline, and acceptable Food Consumption Score (FCS)
- Mean and median Reduced Coping Strategy Index (rCSI)
- Use of coping strategies
- Protection incidents

The baseline interviews were carried out in end-September 2023 and the endline survey was conducted in end-December. The baseline included 309 interviews with beneficiaries, including 172 DRC beneficiaries and 137 SCI beneficiaries. The endline included 340 interviews with 185 DRC beneficiaries and 155 SCI beneficiaries.

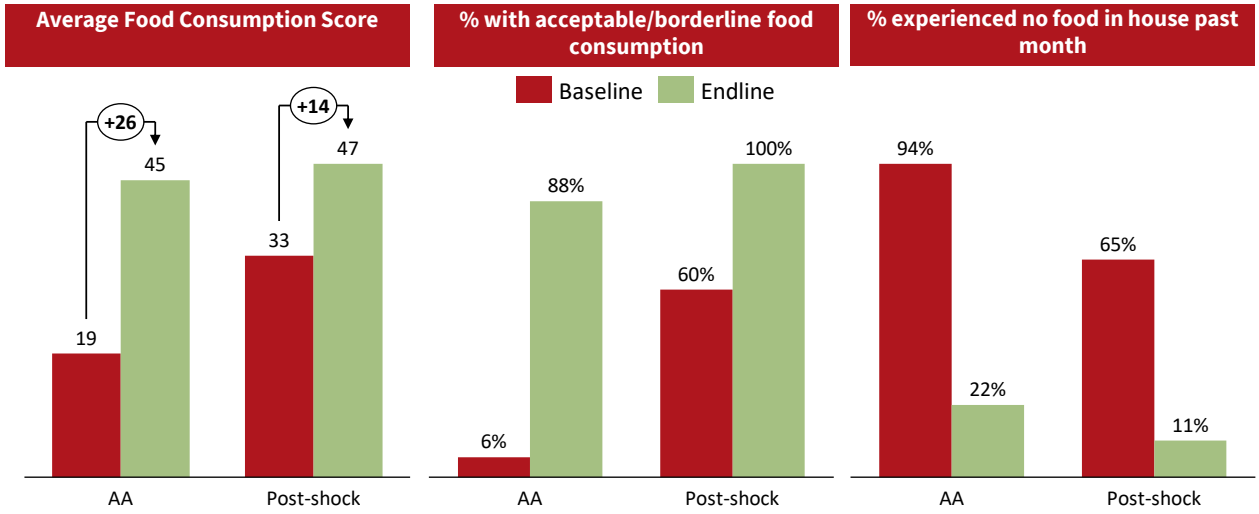
Food consumption

WFP and FAO see anticipatory action as a critical pillar of food crises prevention and of broader disaster risk management. They find that acting in anticipation of disasters allows communities and households to protect their livelihoods and preserve their food security and nutrition status.

The anticipatory action response to the flood in Belet Weyne also appears to have made significant contributions to the food security of the beneficiaries. The DRC beneficiaries average food consumption score more than doubled from 19 in the baseline to 45 in the endline. This also meant that 88% of the beneficiaries had an acceptable or borderline food consumption score in the endline as opposed to only 6% in the baseline. The share of households experiencing situations where no food was available in the household the past month dropped from 94% in the baseline to 22% in the endline.

The positive impact on food consumption is underscored when compared to the SCI beneficiaries that received post-shock / early recovery response. This group had an overall better starting point with higher food consumption scores in the baseline. Their average food consumption score improved by 14 points, which is significantly lower than the 26 points among the anticipatory action beneficiaries. As a result this group also saw improvements, but to a lesser extent on the food consumption categorization, while they also saw a less improvement in the number of households experiencing having no food which dropped from 60% to 11% i.e. 49 percentage points as opposed to the 72 percentage points improvements among the anticipatory action beneficiaries.

There is however an indication that the improvements on food consumption is not evenly distributed between men and women in the anticipatory action group. Women's average food consumption score in the anticipatory action group improved by 25 points, while for men it improved by 33 points. While this could be because the flood has a stronger impact on women than men, the data from the post-shock/early recovery group disproves this hypothesis. In this group, improvements in the average women's food consumption score was on par with the improvements among men. While the difference between men and women in the anticipatory action group is not statistically significant, combined with the results from the control group it does indicate a less positive outcome for women. Further evidence to support



this is found through regression analysis of the key drivers of the food security score. In the baseline, aspects such as child labor and not owning livestock is associated with lower food security scores. However, in the endline the gender of the head of households along with low-income households become a significant driver of lower food security scores. The same trend was not visible when running regression analysis on the data from the SCI beneficiaries.

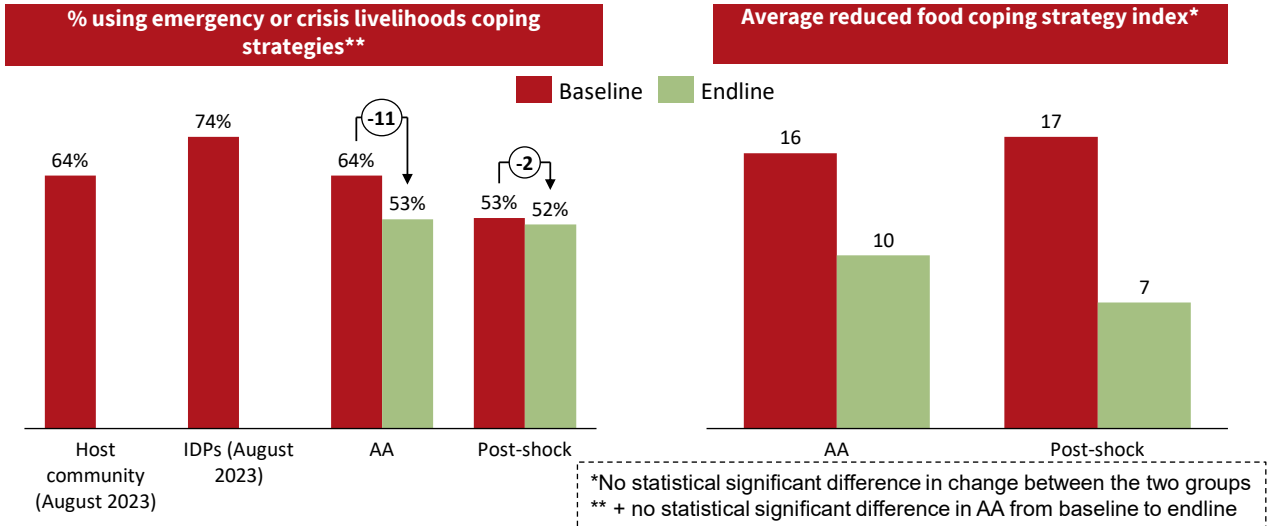
Coping strategies

WFP and FAO have also found that "*anticipatory action can mitigate the need to employ negative coping mechanisms such as selling land and productive assets, taking children out of school to support household chores, securing unfavourable loans, or skipping meals. Lessening the need for applying these practices can mitigate a continued dependence on humanitarian aid*". The findings from our study also shows that the beneficiaries of anticipatory action had some improvements when it comes to the use of negative coping strategies.

The Livelihood Coping Strategies is an indicator used to understand households' medium and longer-term coping capacity in response to lack of food or money to buy food and their ability to overcome challenges in the future. The indicator is derived from a series of questions regarding the households' experiences with livelihood stress and asset depletion to cope with food shortages. In the baseline, 64% of the beneficiaries reported using either crisis- (such as selling productive assets, reduce spending on health/education) or emergency (such as having to beg or migrate) livelihoods strategies, while in the end-line this dropped to 53%. This decrease is however not statistically significant. Comparing to data collected by REACH in August 2023 in Belet Weyne, this is lower than the use of these strategies in host communities, which stood at 64%, while for IDPs it was 74%.

The reduced Coping Strategies Index (rCSI) is an indicator used to compare the hardship faced by households due to a shortage of food. The index measures the frequency and severity of the food consumption behaviours the households had to engage in due to food shortage in the 7 days prior to the survey. On this index, anticipatory action beneficiaries also showed improvements. Their average score dropped from 16 to 10, which unlike the livelihood coping improvement, was statistically significant.

Comparing the results to the post-shock/early recovery beneficiaries shows no major differences. While the post-shock/early recovery



showed almost no improvement on the use of livelihood coping strategies, this difference, like the improvements for the anticipatory action beneficiaries, was not statistically significantly different. The post-shock/early recovery beneficiaries did show a slightly higher improvement of 10 on the average reduced coping strategy index score, compared to the 6 of the anticipatory action beneficiaries, but there was no statistically significant difference in the improvements of the two groups.

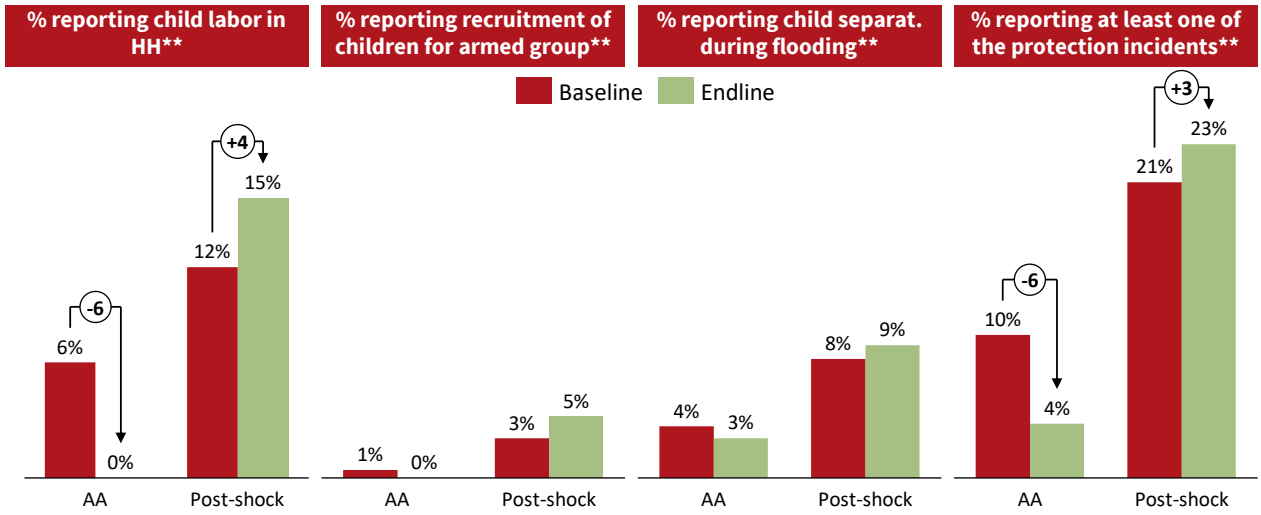
Protection

During- and after emergencies, there are increased risks of violence, abuse, neglect, and exploitation in particular for specific at-risk groups. Often emergencies can magnify existing protection risks and concerns. Protection risks can arise from the mental stress placed on households during emergencies, as well as in the process of adopting negative coping mechanism. In Somalia, drought has been found to aggravate the use of children by armed groups, as children lose access to education and are often required to provide for themselves or their families. This is a particular risk among displaced families. Girls, in particular adolescent girls are found to become more vulnerable to SGBV, and incidents of rape, attempted rape, sexual assault, and harassment have been on the rise during periods of droughts. Again IDPs are particularly at risk.[3]

The anticipatory action beneficiaries did show some minor improvements on protection aspects, albeit these were not statistically significant. The percentage of households reporting child labor outside the house dropped from 6% in the baseline to 0% in the endline. For issues related to recruitment into armed groups and child separation during flooding, no improvements were identified. Combined the number of households experiencing at least one of these protection issues dropped from 10% to 4% between the baseline and endline.

Comparing to the post-shock beneficiaries, these improvements are underscored. While the anticipatory action beneficiaries showed some minor improvements, the post-shock beneficiaries showed some slightly deteriorating results. The percentage of households experiencing child labor outside the household increased from 12% to 15% and overall the share

[3] ACAPS (2023): Horn of Africa: Impact of drought on children.



of households experiencing protection issues increased from 21% to 23%. While neither the improvements, nor the difference between the anticipatory action beneficiaries and post-shock beneficiaries, are statistically significant, the opposite directions the impact of the flooding had on their experience of protection is indicative of a potential positive impact on protection outcomes through anticipatory action response mechanisms.

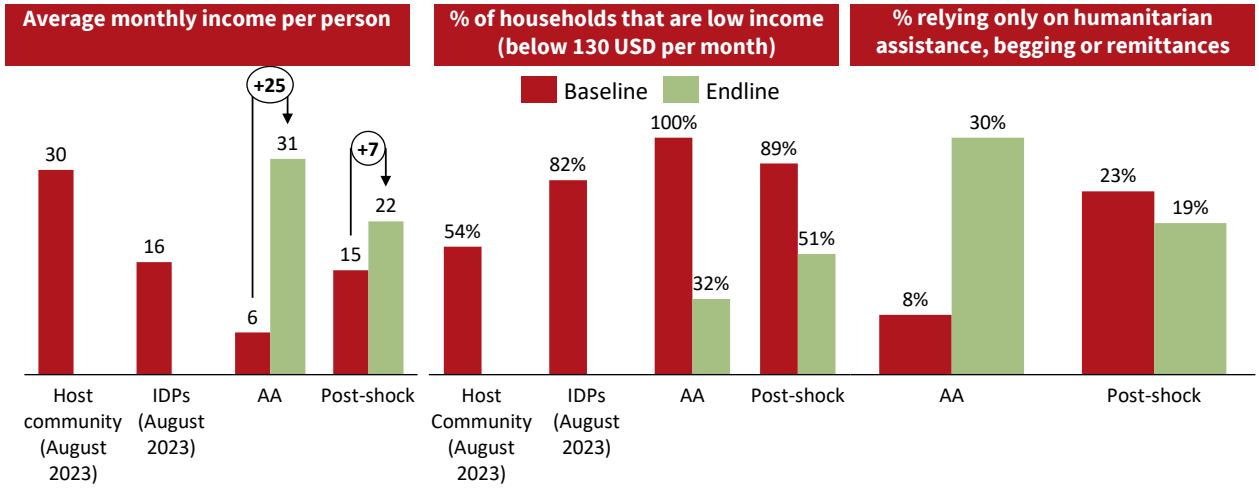
Livelihoods

Floods can have a significant impact on households livelihoods and shelter as it can destroy productive assets, access to land and resources and income generating opportunities.

However, the results show strong, significant improvement on the income of anticipatory action beneficiaries. The average household income per person increased from USD 6 in the baseline to USD 31 in the endline. This is similar to the level of host community members pre-flood. As a result, the number of households defined as low-income dropped from 100% in the baseline to 32% in the endline. This is lower than the pre-shock level in the host community which stood at 54%. Part of explaining this positive is the fact that the beneficiaries received cash distributions. Between the baseline and the endline, the share of the households that reported humanitarian assistance, begging and/or remittances as there only source of income increased from 8% to 30%. So, while their average income has improved, for some the flood has also meant an increased dependence on direct financial support.

There has also been a significant increase in the number of households reporting having savings which increased from 10% to 31% between the baseline and endline. However, the share of households reporting an increase in debt also went up from 20% to 43%.

The positive results are underscored by the fact that the improvements where significantly move positive among the anticipatory action beneficiaries than the post-shock beneficiaries. The average household income per person only increased by USD 7 among the post-shock beneficiaries compared to USD 25 for the anticipatory action beneficiaries. The share of low-income households among post-shock beneficiaries decreased from 89% to 51% compared to the 68 percentage point improvement among anticipatory action



beneficiaries. While there was no statistical difference in the increase of households reporting having savings, there were a significant higher increase among the post-shock beneficiaries of households reporting having debt. However, the post-shock beneficiaries had become less reliant on external support (humanitarian assistance, begging, remittances) than the anticipatory action beneficiaries.

Feedback on the assistance

In addition to the various outcome indicators, data was also gathered perspectives on implementation of the response. Attributing these results to the different types of responses is difficult as differences in the results can also be an outcome of different approaches taken by the two implementing organisations, DRC and SCI.

Generally speaking, the SCI beneficiaries appear more positive with regards to the implementation. 43% of the SCI beneficiaries say they were consulted, as opposed to 15% of the DRC beneficiaries. 70% of the SCI beneficiaries believe they received an appropriate amount in support, while it was 56% of the DRC beneficiaries. For both groups, 100% say they were treated with respect and felt safe during the distribution, while 0% believe there was an unfair selection process.

A higher share of SCI beneficiaries had suggestions on how to improve the response. 40% of the SCI beneficiaries suggested to adjust the duration of the assistance, as opposed to 24% of DRC beneficiaries. 34% of the SCI beneficiaries suggested to adjust the amount, while another 34% suggested making it continuous, while it was 24% and 17% for DRC beneficiaries respectively. Lastly, 5% of the SCI beneficiaries suggested improving the timeliness of the assistance, while 0% of DRC beneficiaries mentioned this.

Lessons Learned

Based on the experience a number of lessons learned have been drawn.

1. Positive results, but need to keep focus on equitability and longer term impacts.

The data gathered from the beneficiaries of the anticipatory action response showed a number of positive results, also when comparing to the results of beneficiaries from the early recovery / post-shock response. The most noticeable positive results were related to food security and income, but the results also showed some potential, positive spill-over effects on protection outcomes. The latter warrant further exploration as an often overlooked, potential benefit of anticipatory action. The results largely confirm the positive findings of other anticipatory action responses to climate hazards. However, the results also highlight that there is need to focus how the benefits are distributed between different type of beneficiary groups. The results suggests that potentially women and low-income households benefitted to a lesser extent. It is important to further explore this aspect and identify the relevant aspects in the anticipatory action design and approach that can help to ensure that the results of anticipatory action are equitable. The results from the data as well as external sources further highlight the needs to also analyse the longer term, sustainable impacts. The data showed a significant increase in the number of people of the anticipatory action response that were now depended on external support (humanitarian assistance, remittances, begging) as their only source of income. So, while the immediate support through cash transfers has helped communities to weather the shock, it has not necessarily put the beneficiaries on a path of economic self-reliance. Also, despite the positive outcomes observed in food security indicators, the Integrated Food Security Phase Classification (IPC) results for January to March indicated a high prevalence of acute malnutrition (AMN) in Beletweyne, particularly Beletweyne IDPs and urban areas, with a Global Acute Malnutrition (GAM) rate of 20.3% (IPC AMN Phase 4), indicating a critical situation. Acute Food Insecurity (AFI) also points to Phase 3 severity. These findings were consistent, highlighting persistent food gaps for urban households in Beletweyne because of the floods. As such, while the anticipatory action and cash transfers appear to have successfully mitigated the immediate impacts, it is imperative to conduct further studies to determine the long-term effects on recovery and productive capacity following the floods.

2. Coordination and collaboration is key, but need close management.

To be effective and minimize potential tensions and hazards, coordinating and collaborating on anticipatory action is important. The close coordination in the Somalia Cash Consortium allowed for a good coverage of vulnerable groups in Beletweyne and a more holistic response to the needs, as well as activities linked with both resilience and early recovery interventions. Aligning on cash distribution amount also helped to mitigate potential tensions between different beneficiary groups. The involvement of REACH as a third party entity to collect data further ensured the availability of credible data for comparing the

results of the different interventions. However, coordination and collaboration also comes with significant challenges. Given the significant flooding in May there was a general nervousness among humanitarian actors to act appropriately and timely, which led to significant pressure to trigger actions. In both early October and mid-October there were some rapid increases in flood levels that caused actors to trigger anticipatory action activities despite not meeting the pre-agreed trigger levels. While the effects where somewhat contained, these type of pressures and dynamics showed the risk of causing a snowball effect leading other actors to also trigger just to ensure that they were not seen as passive, conservative or fearing to trigger too late. In a broader sense it also shows the challenges of collaboration and coordination between agencies with different mandates and risk willingness. Part of the issue was also the fact that some of the trigger points in the jointly developed framework was not well developed in terms of the source of data. E.g. there was a rainfall data indicator in the framework, which however lacked a source and there was not a publicly available source for this information. This left open a room for interpretation on when it would be possible to act based on the agreed framework. Also, the framework did not clearly define whether the actions were designed for riverine and flash floods or only riverine floods. Going forward to enhance the efficiency of the coordination and collaboration, a more clearly defined framework needs to be developed, including clear identification of data sources and protocols for coordination around the triggering of action.

3. Trigger indicators must align with community behavior and local context

The anticipatory action framework for the floods relied on river water level thresholds as the primary trigger for action. However, field observations revealed a significant disconnect between technical trigger thresholds and actual community relocation behavior. While the framework was designed to trigger when river water levels reached the height of the river bank, communities did not relocate at this point. Instead, relocation only occurred when specific villages began to flood, indicating that communities used localized flooding as their primary indicator rather than river water levels. This mismatch resulted in anticipatory actions being triggered before communities were ready to move, potentially reducing the effectiveness of the cash transfers in supporting timely relocation. Going forward, trigger frameworks need to incorporate community-based indicators alongside hydrological data, including identification of sentinel flooding points (specific villages or landmarks) that communities use to make relocation decisions. This requires extensive community consultation during the framework design phase to understand local risk perceptions and decision-making patterns. The framework should also include flexibility to account for variations in how different communities across the affected area perceive and respond to flood risk.

4. Operating in newly accessible areas requires conflict-sensitive programming and longer preparedness timelines

Beledweyne's recent transition from control by non-state armed actors to control by the Somali government presented unique operational challenges that were not adequately anticipated in the design. The Shabelle River physically divides the city, and this geographic division took on heightened significance in the post-conflict context, as movement between the east and west sides requires permission from local militias controlling different areas and in the event of flooding both areas remain inaccessible to each

other. This access constraint affected both staff movement and beneficiary mobility, complicating targeting, verification, and distribution activities.

The clan composition differs significantly between the two sides of the river, adding a layer of complexity to targeting decisions. A purely geographical and preparedness targeting approach focused on low-lying IDP sites risked creating or exacerbating tensions by appearing non-inclusive. Communities on both sides of the river needed to see that their clan groups were being considered in the response. This required balancing geographic/vulnerability-based targeting with clan-sensitive inclusion to maintain community acceptance and prevent perceptions of bias.

5. Scale and historical context for understanding arising needs, scale of impace and need for longer term interventions

The November 2023 flooding occurred within a broader climate context that shaped both its severity and the urgency of response. The event was linked to a confirmed El Niño phenomenon (90% probability) combined with a favorable Indian Ocean Dipole, with forecasts suggesting a one-in-a-hundred-year event. This prediction proved accurate as over a million people were impacted in Somalia. The scale was particularly devastating given that just six months earlier, in May 2023, Beledweyne had experienced severe flooding that affected 90% of the town and damaged critical infrastructure including hospitals. This recent history meant that communities were still recovering when the November floods hit, compounding vulnerability and highlighting the increasing frequency and intensity of flood events.

The anticipatory action approach demonstrated measurable success in this context. With many IDP sites targeted for anticipatory measures successfully self-relocated to designated evacuation sites before the peak flooding, which can be directly attributed to the cash transfers and early warning dissemination through FM radio, community mobilizers, and CCCM staff. Rescue boat operations deployed through coordination between DRC and MoHADM successfully saved households from stranded villages including Lebow, Shinile, and Dheriyow. Upon reaching evacuation sites, teams observed that a significant portion of relocated shelters had plastic sheets, and temporary markets had been established, demonstrating that the cash transfers enabled households to prepare adequately for displacement.

However, market dynamics revealed underlying vulnerabilities in the urban system. Essential commodity prices increased by 12% immediately following the floods, with a 33% price disparity emerging between evacuation areas on the east versus west sides of the river due to the impassable bridge severing the primary supply route from Galkayo. Local retail stores operated with only 7-10 days of stock and no wholesale capacity, creating significant vulnerability to supply chain disruptions. These market pressures, combined with the infrastructure damage and prolonged inundation, underscore that while anticipatory action can successfully mitigate immediate humanitarian impacts, the underlying structural vulnerabilities—inadequate drainage systems, haphazard urban development accommodating 11,682 new residents most of which are forcibly displaced in 2023 alone, and climate change-driven flood intensification—require longer-term development and infrastructure investments that extend beyond the humanitarian mandate.

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