FACTSHEET

Multi-sectoral Impact of drought assessment

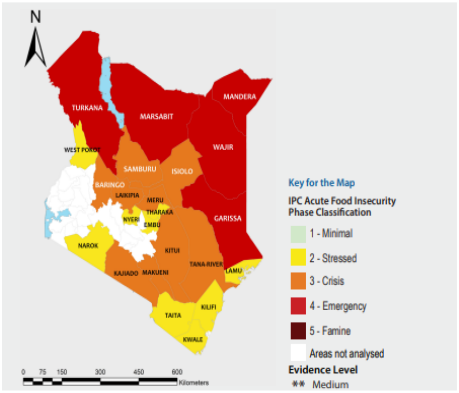
June, 2023

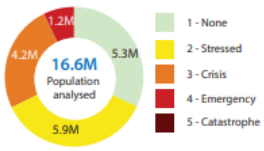
Marsabit County-Kenya

KEY MESSAGES

- Reduced and sporadic rainfall caused the drying up of pasture lands and water sources,[1] leading to the loss of livestock and crops, decreased access to sufficient and nutritious food.[2] Despite the March to May rainfall reported in most pastoral areas, households (HHs) continued to apply emergency livelihood coping strategies after the rainfall.
- HH purchasing power remained low in May, despite the reduction in watering distances and regeneration of pasture due to the on-going rains. The slow recovery of livestock body conditions coupled with high cost of living continue to limit HH access to food and non-food needs.
- The majority of HHs were found to be water insecure in November 2022, with decreased water levels leading to longer treks to source water. However, with the onset of the rains, HH and livestock watering distances have declined. Thus, more HHs have access to water for domestic use, potentially improving the hygiene status of most HHs.

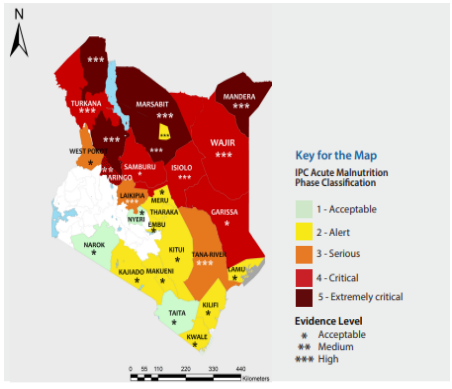
Map 1: Projected Acute Food Insecurity (March-June 2023)[5]





32% of the analysed population of 16.6 million are likely to experience high acute food insecurity (IPC Phase 3 or above) in the projection period.[5]

Map 2: Projected Acute Malnutrition (March - May 2023)[5]



970,214

About 970,214 children aged 6 - 59 months in Kenya will likely suffer from acute malnutrition over the course of 2023 and are in need of treatment.[5]

142,179

About 142,179 pregnant or lactating women are likely acutely malnourished and in need of treatment.[5]

CONTEXT & RATIONALE

Since late 2020, much of the Horn of Africa region has experienced severe drought.[3] In Kenya, the drought affected over 20 arid and semi-arid land (ASAL) counties. Marsabit County, where the majority (81%) of the population constitutes the pastoral livelihood zone,[4] is among ASAL counties that were severely affected by drought. Located in northern Kenya, Marsabit has four sub-counties; Saku, North Horr, Moyale and Laisamis.

The Integrated Phase Classification (IPC) for Acute Malnutrition (AMN) projected elevated levels of malnutrition in Marsabit County, during the March to May period.[5] Furthermore, the county encountered a fifth consecutive failed rainy season and it was projected (March to June 2023) to deteriorate to (IPC) Phase 4 of the Acute Integrated Food Security Phase Classification.

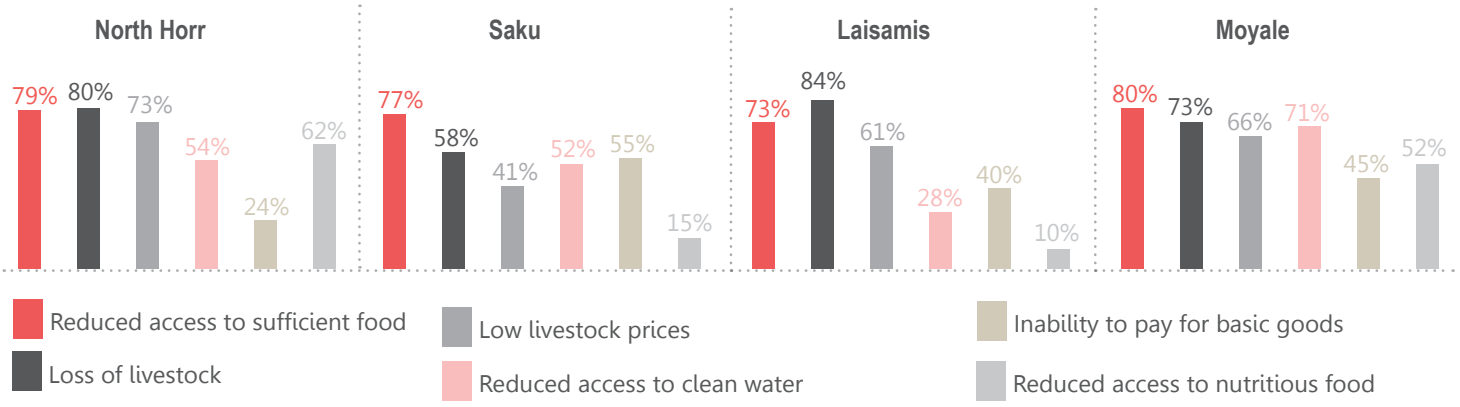
Following these concerning findings, REACH conducted an impact of drought assessment in Marsabit county in November 2022, after the end of the lean season (July to September). The assessment sought to fill information gaps and enhance the response and prioritization of humanitarian and government actors.

LIMITATIONS

With the onset of the March to May long rains season in 2023, the drought situation has changed in most ASAL areas. The release of these findings delayed, thus, results are not dependent on the period of data collection (November 2022) only, but also reflect the situation of HHs after the rains.

Reported drought challenges per sub-county:

% of HHs reporting the drought challenges they encountered, per sub-county:[6]



FOOD SECURITY

% Of households with MODERATE Household Hunger Score (HHS):[7] **68%**

% Of households with an BORDERLINE OR POOR Food Consumption Score (FCS):[8] **71%**

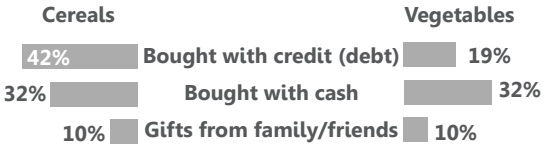
Average reduced Coping Strategy Index (rCSI)[9] score, per sub-county:

North Horr	20.78
Moyale	17.9
Laisamis	13.3
Saku	10.62

Average rCSI score for Marsabit county

15.9

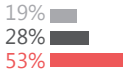
% of HHs reporting the top sources for cereals and vegetables in the three months prior data collection:[6]



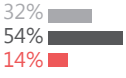
% of HHs per FCS, per sub-county:

Acceptable
Borderline
Poor

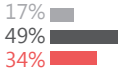
North Horr



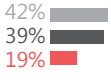
Saku



Laisamis



Moyale

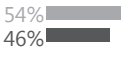


% of HHs per HHS, per sub-county:

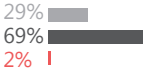
Litte to no hunger
Moderate hunger
Severe hunger

North Horr

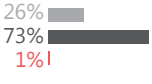
Saku



Laisamis



Moyale



Average number of days each coping strategy was reported, per sub-county:

Coping strategy	North Horr	Moyale	Laisamis	Saku
Rely on less preferred and less expensive foods	3	3	2	2
Borrow food, or rely on help from a friend or relative	2	2	2	1
Reduce portion sizes at mealtimes	3	2	2	1
Reduction in the quantities consumed by adults for children	2	2	2	1
Reduce the number of meals eaten in a day	2	3	2	1

Findings suggest that Marsabit County faced food consumption gaps in November 2022, with the majority (68%) of HHs experiencing moderate hunger due to a lack of access to adequate food. According to the food security update in April 2023 by the Famine Early Warning System (FEWS NET), high staple food prices, low milk availability, and limited to no income from livestock and milk sales continue to constrain household access to food and income in pastoral livelihood zones.[10] More closely, findings from the National Drought Management Authority (NDMA), Early warning bulletin for April 2023 in Marsabit County,[11] suggest that HH food consumption deteriorated compared to March 2023, due to lapse of most of the food and cash interventions by different actors at the household level. Based on the findings in November 2022, over half of the HHs in North Horr and one-third in Laisamis reported having poor food consumption scores. Consequently, HHs in these sub-counties may continue to experience food consumption gaps, because milk production was reportedly low across livelihood zones, and HHs majorly applied emergency livelihood coping strategies,[11] mainly begging to address large food consumption gaps (NDMA, April 2023).

LIVELIHOODS

Total Minimum Expenditure Basket (MEB) Cost in KES[12] (October -December 2022)

13,815

Average HH expenditure (KES) per month, per sub-county:

North Horr	10,230
Moyale	13,310
Laisamis	4,414
Saku	8,093

25%

% of HHs whose average income equalled at least 50% of MEB total cost in October 2022

Average HH debt (KES) per sub-county:

North Horr	14,954
Moyale	15,007
Laisamis	3,254
Saku	4,907

62% **Average drop in livestock count (sheep and goats), after drought.**

% of HHs which reported having debts at the time of data collection:

88% reported having debts, of those:

97% indebted to pay for food
53% indebted to pay for education
49% indebted to pay for basic needs
45% indebted to pay for healthcare

48 **Average number of sheep and goats per HH, before drought.**

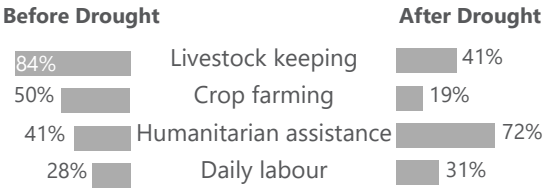
18 **Average number of sheep and goats per HH, in November 2022.**

% of HHs which reported facing barriers to accessing the marketplace in the 30 days prior to data collection:

77% reported facing barriers, of those:

- 87% prices are too high
- 65% lack of access to cash
- 26% transportation is too expensive
- 19% live too far from the marketplace

% of KIs reporting the top sources for livelihood for most community members before the drought vs. after the drought:



94% of KIs reported that the number of livestock decreased in comparison to pre-drought, of those:

97% mentioned that livestock died due to lack of pasture/water
50% mentioned that livestock died due to pests/diseases
26% mentioned that livestock were sold due to poor body conditions or to meet basic needs

88% of KIs reported that the body condition of livestock deteriorated in the six months prior to data collection:

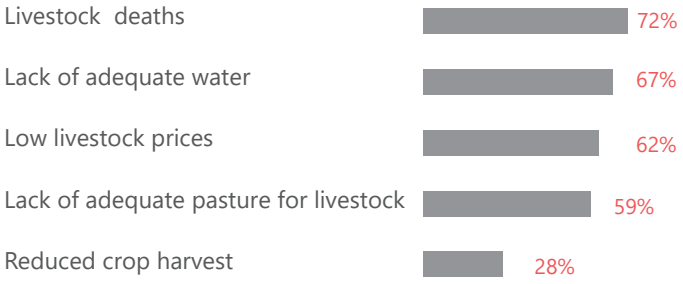
% of HHs per income source before the drought vs. the situation in November 2022 (at the time of data collection):

The situation in Marsabit County is concerning, as livestock production is the primary source of income for HHs in the area, and drought-related challenges largely impacted livestock numbers and milk production.[13] The reduction in livestock count has resulted in a reduced capacity for HHs to generate income, leading to increased reliance on debt as a coping mechanism.

Whereas the majority of HHs (83%) reported having livestock pre-drought, 75% of those HHs reported having livestock in November 2022. Notably, the reported livestock count (sheep and goats) dropped by 62%. During the period between May and November 2022, over 70% of the livestock died due to the lack of pasture and water, caused by the drought.

The March to May rainfall reported in most of the pastoral areas has led to the reduction in watering distances and regeneration of pasture.[14] Even so, the household purchasing power remains low. The slow recovery of livestock body conditions coupled with high staple food prices and the high cost of living continue to limit household access to food and non-food needs.[14] Findings from the Kenya Cash Working Group (KCWG) in the Joint Market Monitoring Initiative (KCWG JMMI) for Q4 2022, suggest that Marsabit County had the highest cost of the MEB (KES 21,242), with a notable increase in the price of the food items basket (16.5%), particularly milk which doubled (JMMI Q1).[15] Given that findings in November 2022 suggest that the average HH debt in Marsabit exceeded the average income by almost 22%, HH debts are likely to keep rising as HHs struggle to meet the food consumption needs.

Reported reasons for the change in primary livelihoods/sources of income after the drought:[6]



WATER, HYGIENE & SANITATION

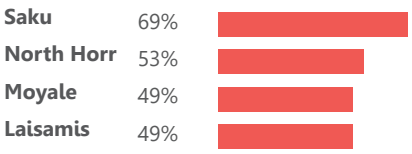
62%

% of HHs that reported using improved water sources[16] for drinking and hygiene practices.

55%

% of HHs which are water insecure[17] based on the Household Water Insecurity Experiences (HWISE) Scale.

% of HHs which are water insecure according to HWISE scale, per sub-county:



Average cost to fill a 20 litre jerrycan with water:[18]

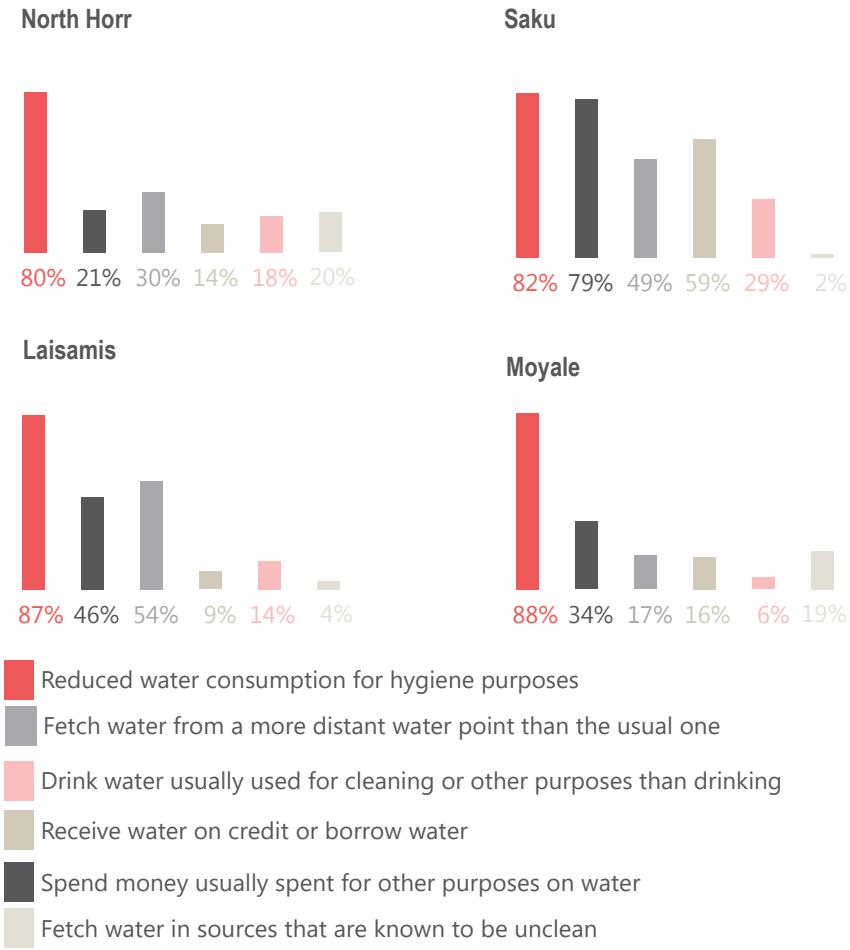
22 KES

The situation regarding water access in Marsabit County is concerning. With over half (54%) of HHs reportedly being water insecure, it is clear that many HHs were facing significant challenges in accessing safe and reliable sources of water for drinking, cooking, and hygiene. To cope with lack of adequate water, the majority of HHs (85%) were reducing water consumption and spending money that would otherwise be used for other purposes to buy water. These coping mechanisms potentially exacerbated the already dire economic situation in some areas in Marsabit, particularly as HHs could have been forced to take on more debt to meet their basic water needs.

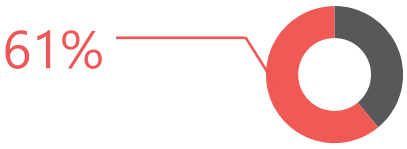
The fact that 38% of HHs used unimproved sources as their primary source of water is particularly worrying, as this means that a relatively high number of HHs may have increased exposure to waterborne illnesses and other health risks associated with unsafe water sources. To access water for drinking, domestic use or watering their livestock, community members especially in Laisamis, Saku, and North Horr, fetched water from a more distant water point than the usual one.

That said, the above average rainfall reported in the pastoral areas has improved water availability in the county, commonly driven by recharge of open water sources in most parts of the County.[14] As a result, household water availability increased across the pastoral areas with households having to travel shorter distances to access water.[14] Similarly, average waiting time to access water reportedly decreased to between 5 and 10 minutes.

% of HHs which reported the strategy used to cope with lack of adequate water, per sub-county [n=431 HHs]:[6]



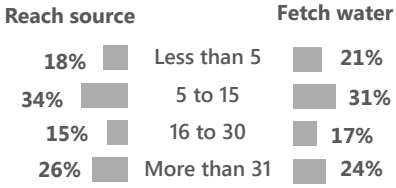
% of HHs which reported facing challenges when fetching water:



61% reported challenges, of those:

- 46% insufficient water quantity at source
- 43% long waiting time to collect water
- 22% not enough containers to carry water
- 20% water source is far away
- 19% water is not of good quality

% of HHs reporting trekking distance and queueing time at water source (minutes):



WATER, HYGIENE & SANITATION

52%

% of HHs which reported sharing the sanitation facility with other HHs

65%

% of HHs which reported that the shared sanitation facility did not have separate stalls for men and women

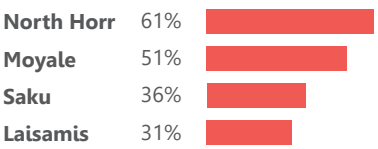
94%

% of HHs which reported not having as a specific hand-washing device[19]

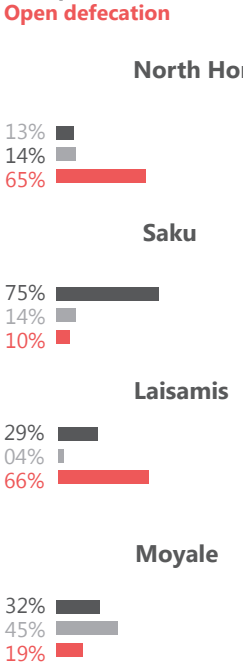
The lack of adequate sanitation facilities and poor hygiene practices are significant concerns in Marsabit County. The sharing of sanitation facilities, the absence of separate stalls for men and women, and the prevalence of open defecation are all contributing factors to poor hygiene and sanitation. **Over half of HHs are sharing a sanitation facility with other HHs in their community, most of which do not have separate stalls for men and women.** These factors not only expose HHs to health risks but also remove the privacy barriers that are essential for maintaining dignity and respect. This situation is exacerbated by the fact that a majority of HHs were already facing significant challenges in accessing safe and reliable sources of water for hygiene purposes.

The lack of specific hand-washing devices is also a cause for concern. While the majority of HHs reported having soap in their HHs, **most do not have specific hand-washing devices.** Whereas 36% and 22% of HHs reported using improved and unimproved facilities respectively, **over 40% of all HHs were openly defecating**, commonly in North Horr and Laisamis sub-counties. These factors, compounded with the majority of HHs that reported reducing water consumption for hygiene purposes, acts as a catalyst for exposing HH members to contracting viruses in the event of a disease outbreak.

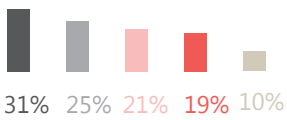
% of HHs which reported facing problems to access the latrine, per sub-county:[6]



% of HHs reporting the type of sanitation facility usually used:



% of HHs reporting the top challenges faced when accessing the sanitation facilities:



Lack of privacy/no separation between men and women

There are not enough other latrine facilities/too crowded

Latrines are unclean/unhygienic

It is not safe (e.g. no door, no lock)

Absence/insufficiency of water

23% reported not having soap

- Of these, 93% can't afford it.

HEALTH

22%

% of HHs with at least one member with an unmet health care need

Of these HHs:

95% **With at least one member reported seeking healthcare**

Drought and its impact on access to safe water and hygienic sanitation facilities can have severe implications for individuals' health. Findings indicate that 22% of HHs reportedly had at least one member with an unmet health care need between August and November 2022. This highlights the need for improved access to healthcare services for those affected by the drought.

It is encouraging to note that the majority of HHs (85%) that sought healthcare services visited a government health facility, which suggests that the government's efforts to improve healthcare access are having an impact.

However, findings also suggest that more than 40% of HHs experienced barriers to accessing healthcare services. This challenges included **poor road infrastructure**, **lack of money to pay for healthcare services**, and **a shortage of ambulances**.

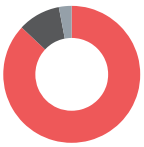
Furthermore, findings suggest the need to address specific barriers to accessing healthcare services, such as the lack of specific medicine or treatment needed (73%), the cost of treatment (43%), particularly the need to pay for transportation (i.e. ambulances). These barriers highlight the need for better availability of essential medicines and treatments, particularly in areas that are affected by drought or other emergencies.

73%

Of HHs reported unavailability of specific medicine or treatment as a barrier

% of HHs which reported the modality of transport used to get to nearest health facility:

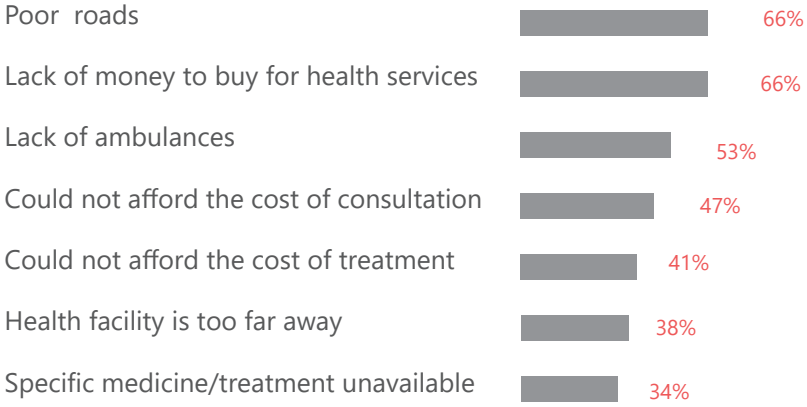
87% by foot
10% by motorbikes
3% by other means



% of HHs which reported the time it would take them to reach the nearest health facility:

2% more than half a day
9% one hour to half a day
32% half an hour to one hour
57% less than half an hour

% of KIs reporting the challenges faced by HHs when trying to access healthcare services:[6]



EDUCATION

% Of HHs reporting having children of school-going age (4 to 17 years):

84%

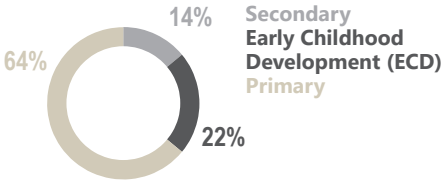
1,977 **Number of reported children of school-going age (4 to 17 years):**

Findings indicate that there was a high enrollment rate of school-aged children (4 to 17 years old) in formal schools in Marsabit county, during the 2021 - 2022 school year. The majority (73%) of school-aged children were enrolled in primary education. Moreover, HHs reported that **almost all of these children were attending school regularly (i.e. 4 days per week)**. It suggests that HHs value education and are making efforts to ensure that their children receive a formal education.

HHs primarily reported the need for basic writing materials, school textbooks, and other paper-based learning materials. This highlights the importance of ensuring that schools have the necessary resources to provide a quality education to all students.

Furthermore, KIs identified cash for children food, cash for school supplies, and exemption from school fees as the top types of supports needed by HHs highlights the impact of the drought on HH food security and the financial strain on HHs.

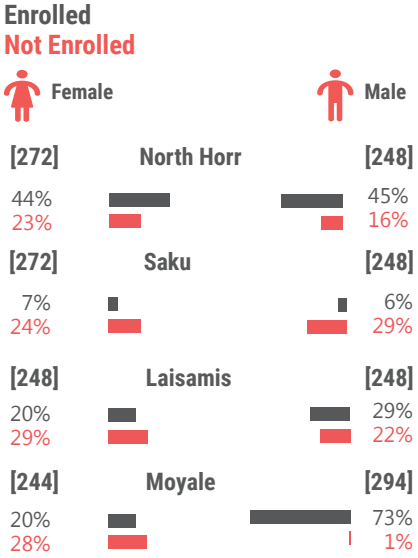
% of school-aged children per level of education [n=1,442]:



99% **of those students were attending 4 days per week**

The fact that only a relatively small percentage of Early Childhood Development, (24%), primary (42%), and secondary school (26%) facilities have access to safe water is a concern, as it indicates the negative impact of the drought on health and well-being of students and teachers.

% of students per enrolment status, per sub-county, per gender of students:



HUMANITARIAN ASSISTANCE

Findings indicate that there is a significant need for humanitarian assistance in Marsabit county, particularly in terms of food assistance and access to water. Despite the benefits of multi-purpose cash assistance (MPCA) and food assistance in mitigating the impact of drought, many HHs did not receive this support.

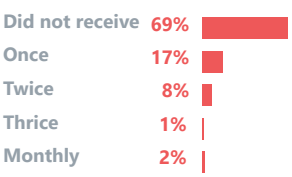
MPCA enabled the recipients to have access to more quantity and different varieties of food, enabled them to better access education for children and to pay part of their debts. That said, half of the HHs reported not having received food assistance (in-kind, voucher or cash for food), **between May and November 2022.** As a result, about half of vulnerable HHs in Marsabit county were in need of humanitarian assistance.

For example, over 250 thousand people were found to be in need of water assistance in September, 2022. However, when it comes to humanitarian assistance, other factors come into play, for instance; primarily funding gaps[20], and response capacity[21], and inflation among other factors. In-kind food assistance and cash for food assistance were the most commonly preferred types of support, which reflects the impact of drought on the availability of food items such as vegetable oil, maize flour, sugar, rice, and white maize[20].

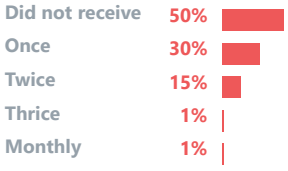
69% **% of HHs which reported having not having received multi-purpose cash assistance (MPCA) between May and November 2022:**

% Of HHs reporting the number of times they received humanitarian assistance between May and November 2022

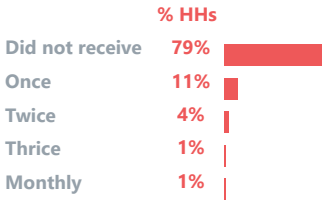
MPCA



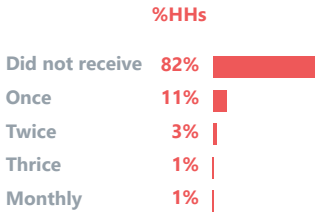
Food Assistance



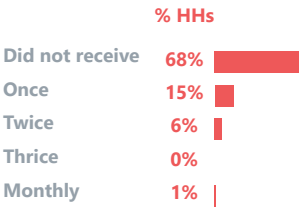
Water Assistance



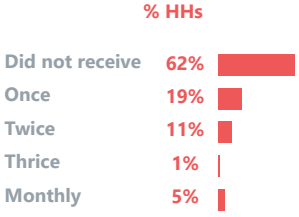
Hygiene Assistance



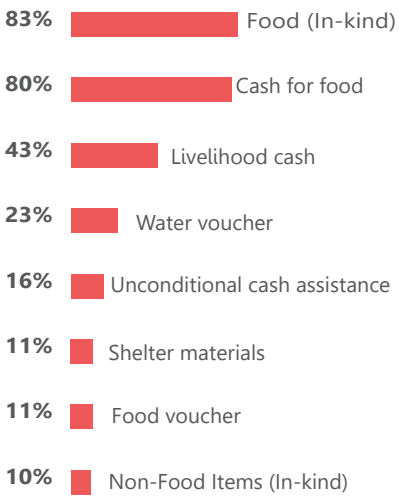
Livestock Assistance



Health Assistance

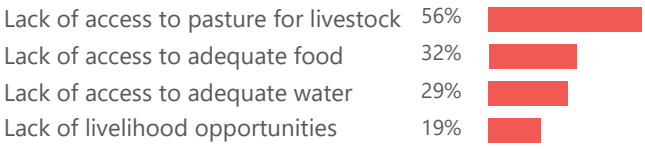


% of HHs reporting the type of support they need:[6]



DISPLACEMENT AND SEPARATION OF HHs

% of HHs in Marsabit county reporting the top reason for migration [n= 138 HHs]



The majority of the HHs reported having migrated from a different location within their ward to where they lived at time of data collection (74%), while the rest reported having migrated from a different ward in Marsabit county.

11% **% of HHs which migrated in the three years prior to data collection (2019-2022):**

Of those HHs:

79% are in pastoral LZ

16% are in agro-pastoral LZ

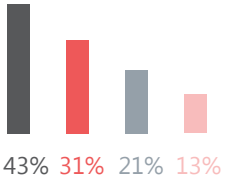
05% are in formal employment LZ

% of HHs reporting on whether some of their members were living out of the HH at the time of data collection:

30% reported having members who were living outside the HH, at the time of data collection:

- The majority were males and females aged between 18 and 35 years who had left less than six months prior data collection.

% of HHs reporting the top reason for members separating from HHs [n= 282 HHs]



To access education

To look for pasture and water

To work/seek employment/business opportunities

Got married

CONCLUSION

Since late 2020, Marsabit County has been affected by the worst drought in decades. Given that majority of HHs in this county depend on livestock production as the main source of income, depressed rainfall had a negative impact on water accessibility and availability, crop and livestock production. As a result, the majority of households (68%) experienced moderate hunger due to a lack of access to adequate food. In addition, households used coping strategies to respond to the lack of food and water, particularly purchasing food on credit, borrowing money, or selling assets. Moreover, the reported average household debt exceeded average income by almost 22% indicating that households were struggling to meet their basic needs.

Despite the fact that most parts of the Arid and Semi-Arid counties received rainfall during the March to May 2023 rainfall season, recovery has been slow and the food security situation is yet to improve.[11] The majority of households in pastoral counties remain dependent on humanitarian assistance to minimize food consumption gaps, as it will take time for herds and milk production to recover from the recently concluded historic drought.[12] Households are also applying consumption-based coping strategies such as reducing the number and size of meals per day, reducing adult food portions in favour of children, and sending family members to eat elsewhere.

ABOUT REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).

METHODOLOGY OVERVIEW

This multi-sectoral impact of drought assessment is a quantitative assessment that aimed to identify the impact of drought on the host community and internally displaced people (IDP) HHs and their needs across different sectors. The assessment utilized two routes of surveys; HH level interviews and key informant interviews (KIIs). The HH survey targeted heads of HHs that were randomly selected, to understand the impact of drought on their HHs and needs. On the other hand, KIIs targeted purposively selected community leaders from each livelihood zone (LZ)[22] in each sub-county.

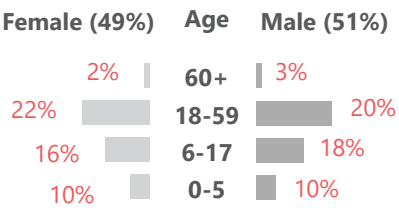
The sampling for the HH survey was random, stratified by sub-county and sampled based on a 95% confidence interval, 7% margin of error, and a 10% buffer to allow for non-response. The results are generalizable at sub-county and county level. The data was collected between October 28 and November 08, 2022.

ASSESSMENT COVERAGE

Assessment sample

Sub-county:	Count of Surveys: 880 HH	32 KII
North Horr	230	04
Saku	216	12
Laisamis	218	08
Moyale	216	08

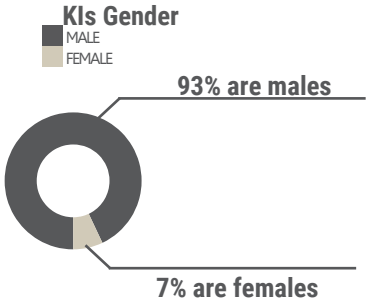
Household Demographics[23]



% Lactating women:[24] 24%

Female-headed HHs 38%

Average HH size 5.5



PARTNERS

Special thanks to the National government of Kenya, County government of Marsabit, the National drought management authority (NDMA), Nawiri, Caritus, SIF, and partners for participating in the joint analysis workshop to validate the results of this assessment.

ENDNOTES

PAGE 1

[1] Drought in Kenya: How the Kenya Cash Consortium is improving the well-being of affected communities, ACTED 2022.

[2] National Drought Early Warning Bulletin, September 2022, NDMA .

[3] Additional information on drought in the Horn of Africa is found here.

[4] Short Rain Assessment, Marsabit County,2022.

[5] KENYA : IPC Acute Food Insecurity & Malnutrition Snapshot, 2023.

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[6] Respondents could select multiple answers.

[7]The Household Hunger Score (HHS) Indicator: used to measure household hunger using three questions and three follow-ups on potentially experienced food deprivation in the past 30 days and the frequency.

[8] The Food Consumption Score (FCS) indicator: used to measure dietary diversity, food frequency, and the relative nutritional importance of food groups based on seven day recall period of food consumed at HH level.

REACH Informing more effective humanitarian action

[9] The Reduced Coping Strategy Index (rCSI) indicator: used to measure the behaviour of HHs over the past seven days when they did not have enough food or money to purchase food.
[10] Kenya - Food Security Outlook Update. April 2023.
[11] Marsabit County: Drought Early Warning Bulletin for April 2023

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[12] For the Integrated Phase Classification (IPC), the recommendation is to distribute an amount of 50% of MEB total cost (9535 KES). This proportion of HHs representing the households who reported 9535 KES or more as income in October 2022. For IPC4, the recommendation is to distribute 75% of MEB total cost (14303 KES). Only 16% of HHs reported incomes equal to this amount (14303 KES) or more.
[13] The 2022 short rains season assessment report.
[14] Marsabit County: Drought Early warning bulletin for May 2023.
[15] Kenya Cash Working Group Joint Market Monitoring Initiative, Quarter 2,June 2022

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[16] Improved drinking water sources are those which, by nature of their design and construction, have the potential to deliver safe water.

[17] The Household Water Insecurity Experiences Scale (HWISE) is calculated using the scoring of 12 indicators for each household and summing the 12 items to yield a HWISE score in a range of 0-36 for each household. Any household with a total HWISE score of 12 or above is considered water insecure.
[18] In North Horr, the cost to fill a 20 litre jerry can with water was 31 KES. In Saku, Laisamis, and Moyale the cost was 25 KES, 9 KES, and 24 KES, respectively.

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[19]No specific hand-washing device i.e. (no device at all or only pouring device or simple basin/bucket, with no taps)
[20] More information on the Kenya Drought Flash Appeal or October 2021 to October 2022 is available here.
[21] The Regional Drought Response Plan for the Horn of Africa May-December 2022 is found here.

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[22] A livelihood zone is an area in which the people within it share almost same patterns of livelihood, including options for obtaining food and income. The livelihood zones are: Pastoral, Agro-pastoral, formal employment, and fishing zones.
[23] A total of 8,327 individuals were reported by the head of households. The Gender for HH members is based on the total number of individuals (8327).
[24] A total of 8,327 individuals were reported by the head of households, and 2,609 of them are females in pregnancy age (10-50 years). Out of those females, 18% were reportedly pregnant.

ANNEX: MARSABIT MAP