FACTSHEET

Multi-sectoral Impact of drought assessment

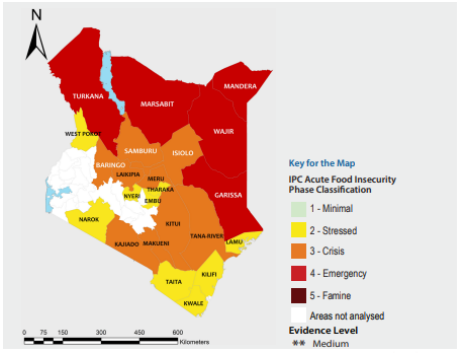
June, 2023

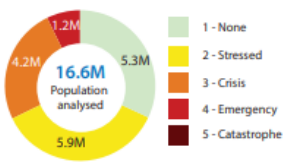
Turkana County-Kenya

KEY MESSAGES

- The prolonged drought and reduced rainfall caused the drying up of pasture lands and water sources,[1] resulting in the loss of livestock heads.[2] Despite the March to May rainfall reported in most pastoral areas, households (HHs) continued to struggle to meet their HH's needs due to the high food prices.
- Low livestock prices were reported by 44% of HHs. As a result, HH's purchasing power remained low in May, despite the reduction in watering distances and regeneration of pasture due to the on-going rains.[3] The slow recovery of livestock body conditions coupled with the high cost of living continued to limit HH's access to food and non-food needs.
- Over half (61%) of HHs were found to be water insecure in November 2022. Despite the continuously decreasing water levels in the previous months having led HHs to trek longer distances to sources water, thanks to the onset of the rains since March 2023, watering distances have declined. Thus, more HHs had access to water for domestic use.

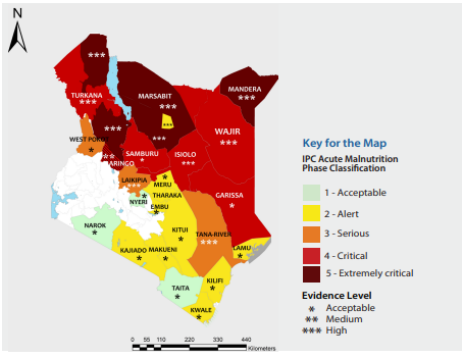
Map 1: Projected Acute Food Insecurity (March-June 2023)[6]





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.[6]

Map 2: Projected Acute Malnutrition (March - June 2023)[6]



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.[6]

142,179

About 142,179 pregnant or lactating women are likely acutely malnourished and in need of treatment.[6]

CONTEXT & RATIONALE

Since late 2020, much of the Horn of Africa region experienced severe drought.[4] In Kenya, the drought affected over 20 arid and semi-arid land (ASAL) counties. Turkana County, where the majority (60%) of the population is located in the pastoral livelihood zone,[5] is among ASAL counties that were severely affected by drought. Located in the north-western part of Kenya, Turkana has seven sub-counties; Turkana East (TE), Turkana West (TW), Turkana South (TS), Turkana North (TN), Turkana Central (TC), Loima and Kibish.

During the Integrated Phase Classification (IPC) for Acute Malnutrition (AMN) conducted in February 2023, Turkana was projected to experience critical levels of malnutrition.[6] Furthermore, the County was projected (March to June 2023) to deteriorate to (IPC) Phase 4 of the Acute Integrated Food Security Phase Classification (see maps 1 & 2).

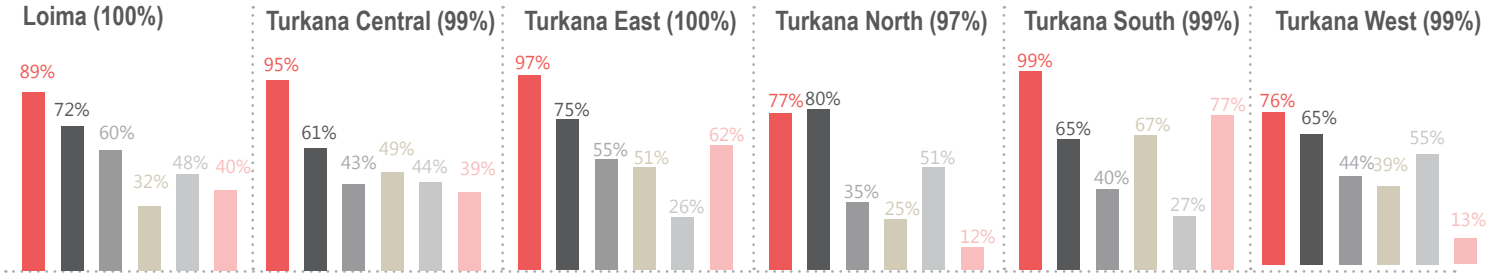
Following these concerning findings above, REACH conducted an impact of drought assessment in Turkana County in November 2022, after the end of the lean season (July to September). The assessment sought to fill information gaps and enhance the response and prioritisation of humanitarian and government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

REACH Informing more effective humanitarian action

Drought challenges experienced, by % of HHs that reported facing challenges due to the drought, per sub-county:[7]



Reduced access to sufficient food
Inability to pay for basic goods due to high prices

Loss of livestock/livestock deaths
Low livestock prices due to poor livestock body condition

Reduced access to clean water
Reduced access to nutritious food

FOOD SECURITY

76% Of households with a **MODERATE** Household Hunger Score (HHS):[8]

81% Of households with a **BORDERLINE OR POOR** Food Consumption Score (FCS):[9]

Average Reduced Coping Strategy Index (rCSI),[10] per sub-county:

Loima	TC	TE	TN	TS	TW
23.6	22.8	22.2	16	20.2	15.7

Average number of days, in the seven days recall period, that each rCSI strategy was reportedly used by HHs, per sub-county:

Reduced Coping Strategy	Loima	TC	TE	TN	TS	TW
Rely on less preferred and less expensive foods	3	3	3	2	3	2
Borrow food, or rely on help from a friend or relative	2	2	3	2	2	2
Reduce portion sizes at mealtimes	3	3	2	2	3	2
Reduction in the quantities consumed by adults for children	3	3	3	2	2	2
Reduce the number of meals eaten in a day	4	3	3	2	3	2

Turkana County faced food consumption gaps in November 2022, with the majority (76%) of HHs reportedly experiencing moderate hunger due to a lack of access to adequate food. The lack of adequate water, crop losses, and loss of livestock resulted in reduced livelihood and income-generating opportunities, which further exacerbated the already dire situation.

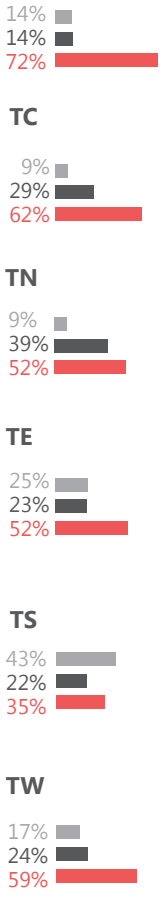
According to the food insecurity update in May 2023 by the Famine Early Warning System (FEWS NET), high commodity prices continued to limit HHs' access to food in the pastoral areas, despite the March to May rains.[3] Even so, HHs' and livestock reportedly trekked for shorter distances to access water due to the recharge of most water sources and thus HHs improved their water consumption levels.[3]

Moreover, findings from the National Drought Management Authority (NDMA), Early warning bulletin for May 2023,[11] suggest that over half (52%) of the HHs in the pastoral livelihood zone were classified as having a poor food consumption score. This indicates that some HHs continued to experience food consumption gaps.

Based on the findings by REACH in November 2022, Loima, Turkana Central, Turkana East and Turkana West experienced elevated levels of food consumption gaps. Consequently, HHs in these sub-counties may continue to experience constraints in accessing adequate food, as a smaller proportion of HHs localised in Turkana South and Loima sub-counties reported low milk production in May 2023.[11]

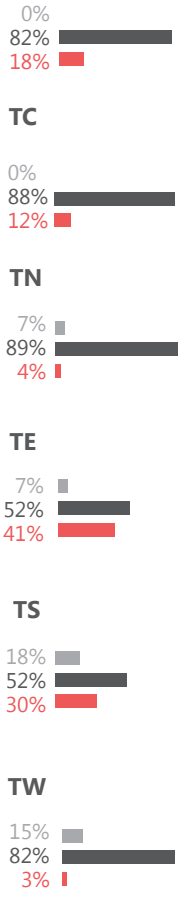
% of HHs per FCS, per sub-county:

Acceptable
Borderline
Poor



% of HHs per HHS, per sub-county:

Little to no hunger
Moderate hunger
Severe hunger



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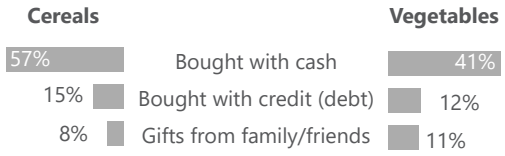
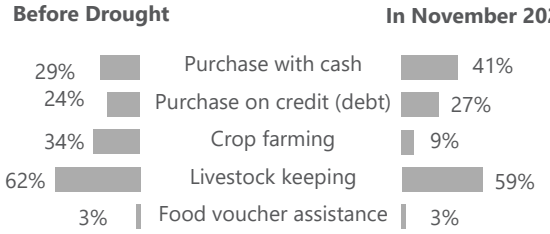
Top sources for cereals and vegetables in the three months prior to data collection, by % of HHs:[7]



***17% of HHs reported NO source of vegetables** during the three months prior to data collection*

Common sources of food for most HHs before the drought vs. at the time of data collection, by % of KIs:[7]



LIVELIHOODS

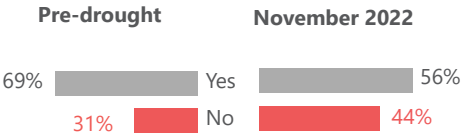
18,611

The total cost of the Minimum Expenditure Basket (MEB) KES[12] for October to December 2022.

3,640

Households' average total expenditure in October 2022 in KES:

% of HHs that reportedly had livestock pre-drought (in the 3 years prior to data collection) vs November 2022:



% of HHs which reported having debts

- 94% indebted to pay for food
- 42% indebted to pay for education
- 27% indebted to pay for healthcare
- 24% indebted for basic needs

% of HHs which reported facing barriers to accessing the marketplace in October 2022:

- 91% prices are too high
- 64% lack of access to cash
- 39% live too far from the marketplace
- 32% transportation is too expensive

3,916

Households' average income in October 2022 in KES

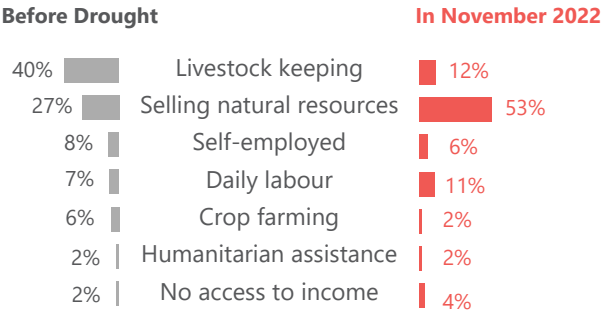
2,316

Households' average total debt in November 2022 in KES

44 **The average number of sheep and goats pre-drought (in the 3 years prior to data collection) per HH, among 69% of HHs that reported having livestock**

22 **Average number of sheep and goats that reportedly died between May and November 2022, likely due to lack of pasture and water as a result of the drought**

Top income sources before the drought (in the 3 years prior to data collection) vs November 2022, by % of HHs:



In November 2022, HHs in Turkana County were facing economic challenges due to inflation and a lack of livelihood opportunities. As a result, the majority (71%) of HHs were relying on debt to meet their basic needs, particularly for food. Livestock production, which was previously a main source of income in the region, decreased significantly due to drought among other factors.[14] This contributed to a decline in HH income and an increase in debt.

The loss of livestock due to drought impacted HH incomes, with the reported livestock count, particularly sheep and goats dropping by half. The majority of lost livestock heads died due to a lack of pasture and water, which was confirmed by HHs and key informants.

Whereas the majority of HHs (69%) reported having livestock pre-drought, just over half (56%) reported having livestock in November 2022. This further reduced HH incomes and made it more difficult for HHs to meet their basic needs.

However, the March to May rainfall supported the recharge of water sources and the regeneration of pasture.[12] Thus, the forage condition reportedly improved as well as the milk production level that increased among the reporting HHs.[12] Even so, most HHs in pastoral counties remained dependent on humanitarian assistance to minimise food consumption gaps as it will take time for herds and milk production to recover from the recently concluded historic drought.[12]

WATER, HYGIENE & SANITATION

79%

% of HHs that reported using improved water sources[14] for drinking and hygiene practices.

61%

% of HHs which are water insecure[15] based on the Household Water Insecurity Experiences (HWISE) Scale.

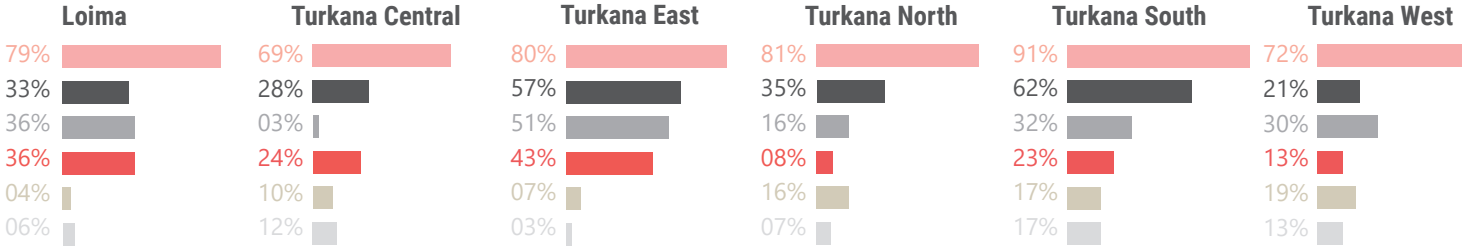
Average cost to fill a 20-litre jerrycan with water:[16]

5 KES

% of HHs that were found to be water insecure based on the HWISE scale, per sub-county:

Loima	TC	TE	TW	TS	TN
72%	70%	63%	57%	54%	52%

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



Reduce water consumption for hygiene
Drink water usually used for cleaning or other purposes than drinking
Spend money usually spent on other things to buy water
Go fetch water from a more distant source than usual
Fetch water in sources that are known to be unclean
Receive water on credit or borrow water

** Refers to HHs that selected sometimes (3–10 times), and often (11-20 times) of the 12 HWISE scale items.*

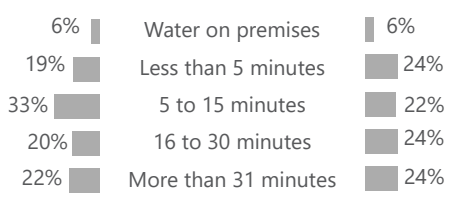
% of HHs which reported facing challenges when fetching water:

60%

Reported facing challenges, of those:

- 54% did not have enough containers to carry water
- 42% insufficient water at source
- 40% too long waiting time to collect water
- 32% water was not of good quality
- 17% water source was far away

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



The situation regarding water access in Turkana County was very concerning, with over 60% of HHs found to be water insecure and many individuals reportedly travelling long distances to access water for drinking and livestock. Drought exacerbated the situation, as water sources became scarce and the distance that HHs needed to trek to access water increased.

Over 20% of HHs would require at least 60 minutes to get to a water source and fetch water. The distance that HHs needed to trek to access water for drinking or for livestock was above the long term average and the trend was worsening across Turkana County.[17] HHs especially in Turkana East, and Turkana South were experiencing this challenge.

The impact of this crisis was felt particularly by women and children, who were often responsible for fetching water for their HHs.

The increased distance and time needed to access water put them at greater risk, and potentially impacted the ability of children to attend school regularly. In addition to the immediate challenges of accessing water, the crisis also led to reduced consumption of water, which potentially had significant health implications. Individuals in Turkana were consuming less water than is recommended for a normal person,[18] which could have led to dehydration and other health problems.

However, with the March to May rains reported in most parts of the County in 2023, HHs and livestock trekking distances have reduced due to the recharge of most water sources. This translated to improved consumption level and watering frequency with respect to livestock. Furthermore, the waiting time at the water source across the agro-pastoral, fishing and pastoral livelihood zones reduced, averaging 10, 20 and 30 minutes respectively.[11]

WATER, HYGIENE & SANITATION

64%

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

92%

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

The lack of latrines and sanitation facilities, as well as the lack of soap and specific hand-washing devices available for HHs, all indicate a deteriorating hygiene and sanitation status in Turkana. This is particularly concerning given that the majority of HHs (60%) were found to be water insecure and 28% used unsafe water sources, and were therefore reducing water consumption for hygiene purposes.

Moreover, the fact that over 60% of HHs that reported having a sanitation facility were sharing it with other HHs in their community, often without separate stalls for men and women, worsened the situation. This lack of privacy and crowded facilities could expose individuals to unhygienic environments and unsafe facilities.

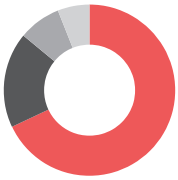
In addition, the lack of specific hand-washing devices and soap for cleaning practices also increases the risk of disease transmission, particularly in a context where open defecation is common practice, with almost 70% of HHs reverting to this mode of human waste disposal. This was mostly reported in Turkana Central (86%).

All of these factors contribute to a significant public health risk, as they expose HHs to unsafe and unhygienic facilities and increase the likelihood of disease outbreaks.

69%

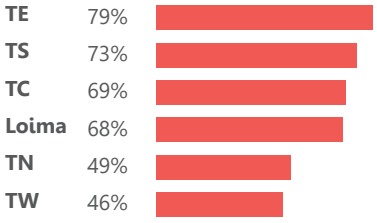
% of HHs which reported that the shared sanitation facility did not have separate stalls for men and women (n=368 HHs)

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

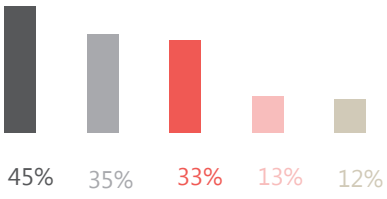


18% Improved facilities[20]
8% Unimproved facilities[20]
6% Others (Open hole, bucket toilets etc)
68% Open defecation

% of HHs which reported facing problems to access latrines, per sub-county:[7]



Top challenges faced when accessing the sanitation facilities, among 62% of HHs that reported experiencing challenges:



Lack of privacy/no separation between men and women
There are not enough latrines/too crowded
Latrines are unclean/unhygienic
It is not safe (e.g. no door, no lock)
Absence/insufficiency of water

% of HHs which reported not having soap in November 2022

48%

Of these, 95% reported not being able to afford it

HEALTH

47%

% of HHs with at least one member with an unmet healthcare need

Of these HHs (n=601 HHs):

35% **Were not able to access healthcare**

Drought in Turkana had far-reaching implications for public health, particularly in terms of the availability of safe water and adequate access to hygienic sanitation facilities. Almost half (47%) of HHs reportedly had at least one member with an unmet healthcare 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 almost all (95%) HHs that sought healthcare services visited a government health facility, which suggests that the government's efforts to improve healthcare access were having an impact. In particular, the government had initiated a programme to reach out to remote areas and provide HHs with healthcare services.

However, findings suggest that 70% of HHs with at least one HH member who had sought healthcare services reported having faced challenges to accessing healthcare. The commonly reported challenges were; the high cost of treatment (38%), unavailability of specific medicine or treatment (29%), health facilities being too far (20%), among other challenges.

Furthermore, findings also suggest HHs with at least one member that did not access healthcare when they needed it, experienced barriers. These barriers included the high cost of treatment (75%), high cost of transport (31%), and unavailability of specific medicine or treatment (26%).

75%

of HHs could not afford the cost of treatment, among HHs with at least one member with an unmet healthcare need (n=211HHs)

Transport modality used to access the nearest health facility, by % of HHs:

96% by foot
03% by motorbikes
01% by other means

Time reportedly needed to reach the nearest health facility, by % of HHs:

7% more than half a day
21% one hour to half a day
33% half an hour to one hour
39% less than half an hour

EDUCATION

78%

% of HHs reporting having children of school-going age (4 to 17 years), enrolled in formal school in the 2021-2022 school year

3,828

Number of reported children of school-going age (4 to 17 years):

% of school-aged children per enrollment status in 2021-2022 school year

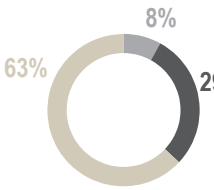
81% were enrolled, of those:

- 49% are females
- 51% are males

19% were not enrolled, of those:

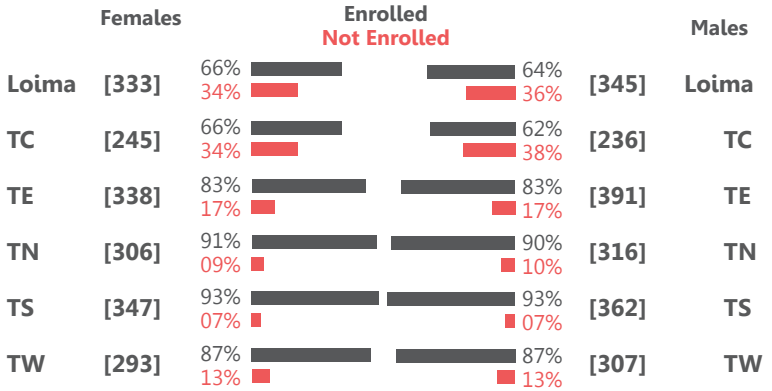
- 48% are females
- 52% are males

% of school-aged children enrolled at school per level of education [n=3,102]



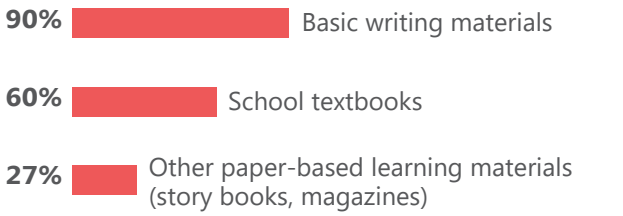
98% **of those students were attending school 4 days per week**

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



% of male students per enrolemnet status, per sub-county:

Top kind of support needed to help school-aged children in their HHs to attend school regularly (4 days/week), by % of HHs with school-aged children (n=995 HHs):[7]



Findings indicate that there was a high enrollment rate of school-aged children (4 to 17 years old) in formal school in Turkana County, during the 2021 - 2022 school year. About two-thirds (63%) of school-aged children going to school were enrolled in primary education.

Moreover, HHs reported that **almost all of the enrolled 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.

However, the lack of basic writing materials (90%) and textbooks (60%) reported by HHs with school-aged children enrolled in school, as well as the need for direct provision of food for children at schools reported by KIs, indicate that there were still challenges in ensuring quality education for children in Turkana.

The impact of the drought on the availability of meals[21] at schools and homes further exacerbated the situation, as students might have dropped out of school to fulfill their basic needs, including looking after livestock or seeking work to support their families.

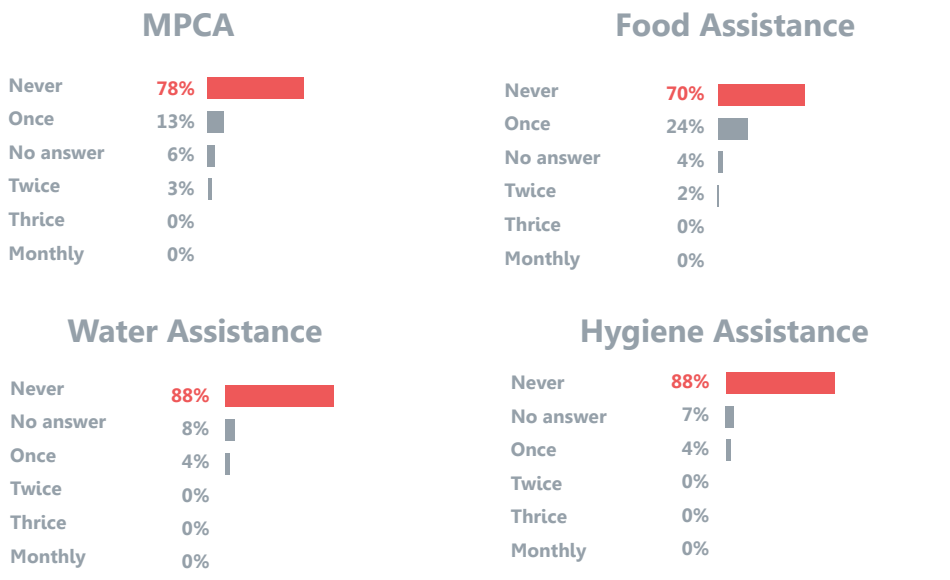
The reported cases of poor sanitation and hygiene conditions in schools, particularly dysfunctional latrines and handwashing facilities in ECD centers (46%), primary schools (42%), and secondary schools (45%), across all the ASAL counties was also a concerning issue.[21] This might have led to an increase in waterborne diseases among students and hindered their attendance and academic performance.

That said, it is encouraging that humanitarian partners reached nearly 50,000 children impacted by the drought with education support between January and March.[22] This assistance, together with the March to May rains potentially alleviated the impact of drought on school attendance.

HUMANITARIAN ASSISTANCE

78% **% of HHs which reported not having received multi-purpose cash assistance (MPCA) between May and November 2022:**

Reception of humanitarian assistance frequency between May and November 2022, by % of HHs:[7]



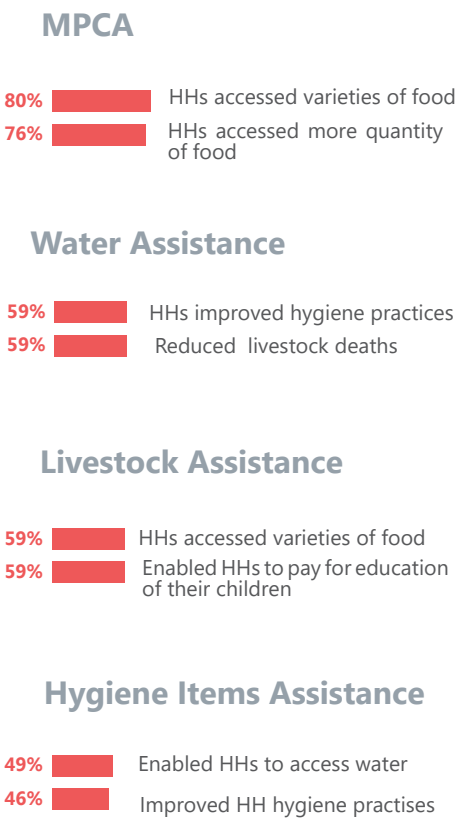
Type of humanitarian assistance needed, by % of HHs:[7]

Findings indicate that in November 2022, there was an urgent need for humanitarian assistance in Turkana County, particularly in the areas of food and livelihood support. While multi-purpose cash assistance (MPCA) enabled some recipients to access more food and other services, the majority of HHs in the area did not receive this assistance. MPCA enabled the recipients to have access to more quantity and different varieties of food, enabled them to better access to education for children, as well as enabling them to pay parts of their debts, and health services. However, the proportion of HHs that received MPCA is much smaller than commonly believed, as between May and November 2022, 78% of HHs reported not having received MPCA.

The few who reported receiving MPCA, mostly received it once in the six months prior to data collection.

Additionally, HHs preferred in-kind food assistance and cash for food assistance, given the impact of drought on food availability. Livelihood cash assistance and food voucher assistance were also seen as important forms of support to address the impacts of drought on livestock and crop production, as well as depleted water sources. However, the availability of funding and response capacity[23] were potential barriers to providing adequate humanitarian assistance in Turkana.

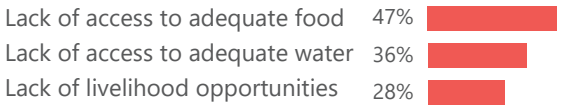
% of HHs reporting the commonly perceived impact of humanitarian assistance in their HHs:[6]



DISPLACEMENT AND SEPARATION OF HHs

4% **of HHs which migrated in the three years prior to data collection (2019-2022)**

% of HHs in Turkana County reporting the top reason for migration [n= 49 HHs]:



More than half of the HHs (56%) reported having migrated from a different location within their ward to where they lived at the time of data collection, one-third (34%) reported having migrated from a different ward in Turkana County and 10% from other locations in Kenya.

Of those HHs:

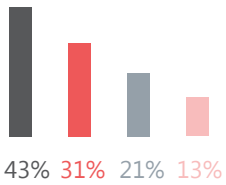
71% were in pastoral LZ
14% were in formal employment LZ
6% were in fishing LZ
6% were in agro-pastoral LZ

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

25% 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 to data collection.

% of HHs reporting the top reason for members separating from HHs [n= 321 HHs]



CONCLUSION

Since late 2020, Turkana County has been affected by the worst drought in decades. Given that the 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, over two-thirds of HHs (76%) experienced moderate hunger due to a lack of access to adequate food. In addition, HHs used coping strategies to respond to the lack of food and water, particularly purchasing food on credit, borrowing money, or selling assets.

Water insecurity was also a significant issue, with long distances to water sources and limited access to safe water, leading to reduced water consumption and increased risks for women and children who are responsible for fetching water.

With most parts of the ASAL counties experiencing rainfall in the March-April-May season in 2023, HHs and livestock trekked for shorter distances to access water due to the recharge of most water sources. Thus, water consumption for domestic use has increased, potentially improving the hygiene levels of HHs.

Even so, recovery has been slow and the food security situation is yet to improve.[11] The majority of HHs in pastoral counties remain dependent on humanitarian assistance to minimise food consumption gaps, as it will take time for herds and milk production to recover from the recently concluded historic drought.[3]

In pastoral areas, staple food prices remained historically high in most markets due to low local food availability. The high food prices continued to limit HH purchasing power, thus HHs struggled to meet their food needs .[11]

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 utilised 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)[24] in each sub- County.

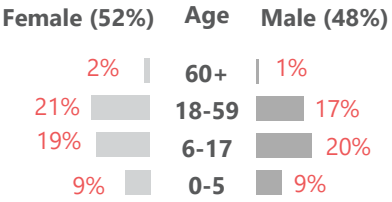
The sampling for the HH survey was random, stratified by sub- County and sampled based on a 95% confidence interval, a 7% margin of error, and a 10% buffer to allow for non-response. The results are generalisable at sub- County and County level. The data was collected between October 28 and November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

ASSESSMENT COVERAGE

Assessment sample

	Count of Surveys	
Sub-county	**1275 HH**	**58 KII**
Loima	216	09
Turkana Central (TC)	198	09
Turkana East (TE)	217	09
Turkana North (TN)	214	11
Turkana South (TS)	216	10
Turkana West (TW)	214	10

Household Demographics



% Lactating women: 18%

Female-headed HHs 60%

Average HH size 6.4

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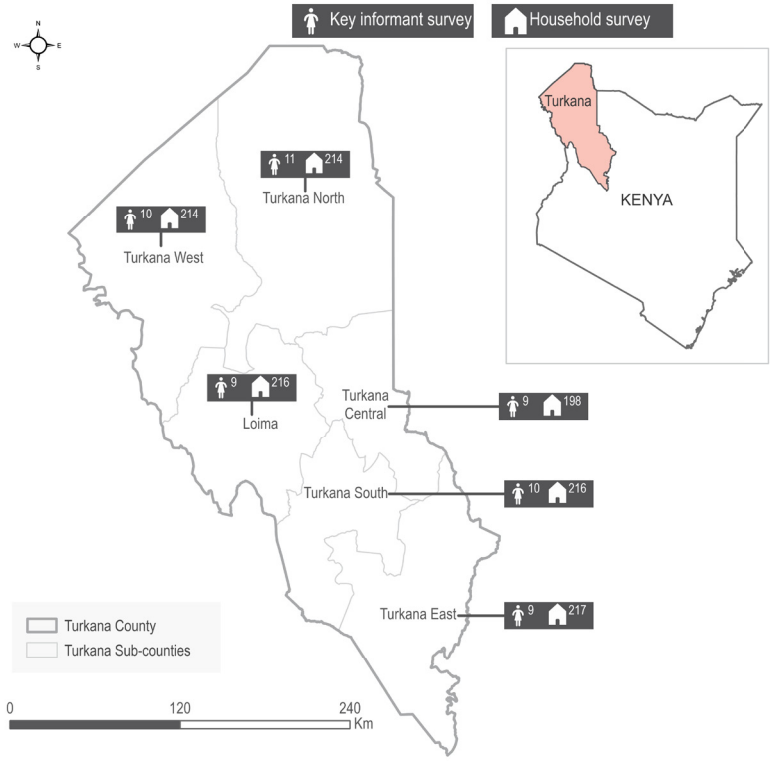
ANNEX: TURKANA COUNTY MAP



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).

PARTNERS

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ENDNOTES

[1] Drought in Kenya: How the Kenya Cash Consortium is improving the well-being of affected communities
[2] National Drought Early Warning Bulletin, September 2022, NDMA .
[3] Kenya - Food Security Outlook Update. April 2023.
[4] Additional information on drought in the Horn of Africa, September 2022, is found here.
[5] 2022 Short Rain Assessment, Turkana County
[6] IPC Kenya Infographics.
[7] Respondents could select multiple answers.
[8] 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.
[9] 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.
[10] 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.
[11] Turkana County: Drought Early Warning Bulletin for May 2023
[12] The total cost of the Minimum Expenditure Basket (MEB) for Turkana was KES18,611 in December 2022, according to the *JMMI Key Findings for Quarter 3, 2022*. For IPC3, the recommendation is to distribute an amount of 50% of MEB total cost (9,305 KES).
[13] 2022 Long rains Food and Nutrition security assessment report, Turkana County.
[14] Improved drinking water sources are those which, by nature of their design and construction, have the potential to deliver safe water.
[15] 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.
[16] The average cost to fill a 20 litre jerrycan of water in KES in: Loima (7.4), Turkana Central (5), Turkana East (4.8), Turkana North (3.6), Turkana South (7.9), and Turkana West (3.8).
[17] Turkana County: Drought Early Warning Bulletin, September 2022
[18] Kenya Drought Flash Appeal: October 2021-October 2022 (Revised in May 2022)
[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 facility type classification please visit here.
[21] More information on the Kenya Drought Flash Appeal or October 2021 to October 2022 is available here.
[22] January to March 2023, Drought Response Dashboard, OCHA.
[23] The Regional Drought Response Plan for the Horn of Africa May-December 2022 is found here.
[24] A livelihood zone is an area in which the people within it share almost the same patterns of livelihood, including options for obtaining food and income. The livelihood zones are: Pastoral, Agro-pastoral, formal employment, and fishing zones.