2023 MSNA METHOLODOGY OVERVIEW: KENYA

General and specific objectives and research questions

The main objective of the 2023 Multi-Sectoral Needs Assessment (MSNA) in Kenya was to understand the needs and severity of the needs at households' level in arid and semi-arid counties (ASALs) and how these needs varied between different population groups. This aimed at filling information management gaps and enhancing response and prioritization of humanitarian, development, and government actors.

The assessment had eight specific objectives:

- To understand the needs and access to protection services among households in the ASAL counties.
- To understand the needs and food security among households in the ASAL counties.
- To understand the needs and access to access to WASH services among households in the ASAL counties.
- To understand the needs and access to livelihood services among households in the ASAL counties.
- To understand the needs and access to education services among households in the ASAL counties.
- To understand the needs and access to health and nutrition services among households in the ASAL counties.
- To understand the needs and access to shelter services among households in the ASAL counties.
- To understand the needs and access to humanitarian assistance among households in the ASAL counties.

To achieve these objectives, the MSNA sought to answer the following research questions:

- What are the needs and access to protection services among households' in the ASAL counties?
- What are the needs and food security situation among households' in the ASAL counties?
- What are the needs and access to WASH services among households' in the ASAL counties?
- What are the needs and access to livelihood services among households' in the ASAL counties?
- What are the needs and access to education services among households'in the ASAL counties?
- What are the needs and access to health and nutrition services among households' in the ASAL counties?
- What are the needs and access to Shelter services among households' in the ASAL counties?
- What are the needs and access to humanitarian assistance among households' in the ASAL counties?

Scope and coverage of the assessment

The MSNA was conducted in four arid counties (Turkana, Marsabit, Mandera and Turkana), targeting host communities, refugees in host communities, and internally displaced persons (IDPs) in the host communities. However, since the sampling was random, there were no predefined selection criteria for the households to be surveyed.



The assessment used stratified random sampling at a sub-county level to fulfil a 95% Confidence level and a 7% Margin of Error per sub-county. In total, 4,951 households were surveyed across the four counties, targeting self-reported adult heads of households with knowledge of household circumstances. The sample size was calculated based on household population figures from the Kenya National Bureau of Statistics (KNBS) 2019 population census. To achieve randomization of the households for the assessment, Random GPS points were generated using ArcGIS software and accessed by enumerators through MAPinr on their Android phones. This allowed enumerators to easily locate and visit the households falling on those points, facilitating data collection. In cases where there was no one to be interviewed in the selected household, or the respondent was unwilling to participate, enumerators targeted the nearest household in a radius of 5 meters. If there was still no household to be interviewed, then enumerators interviewed the household that fell on the next point. A buffer of GPS points was provided to ensure that the required sampling target was met per county.

Sampling summary table:

Stratification	Precision level	Buffer	Sampling type
Couties (Turkana, Marsabit, Mandera, Garissa)	Confidence level: 95% Margin of error: 10%	10%	Probability (Stratified random)

Data collection and geographical coverage

Quantitative data collection took place between the 22nd of May and the 2nd of June 2023 and covered a total of 4,951 households. Household surveys were conducted using face-to-face interviews. Data was collected using Open Data Kit (ODK) using mobile phones. The enumerators underwent a one-day training on the tool and best practices during data collection and a one-day piloting of the tool to ensure that they fully understand the tool. The outcomes of the tool piloting formed a basis for debriefing before data collection started. The questionnaire assessed various sectors including protection, food security, livelihood, WASH, education, health, nutrition, and shelter.



Map 1: Assessment coverage



Secondary data sources

Various secondary data sources were employed in the design and triangulation of the assessment findings, ensuring that the methodology relied on up-to-date population figures and that the findings were appropriately contextualized. Through the use of secondary data, background information about the counties was understood, providing crucial insights into changing climate conditions, population traits, livelihood zones, and other socioeconomic elements. This enhanced the report's credibility as a result. Key references included data from various humanitarian organizations, statistics on food security and acute malnutrition, Drought Early Warning reports from the National Drought Management Authority, and demographic reports from the National Bureau of Statistics. For more information, please refer to the TOR

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Ethical considerations

During data collection and information dissemination, REACH ensured that all necessary ethical standards were adhered to, including:

- REACH ensured that all tool questions were developed in line with IMPACT Initiatives' Standard Operating Procedures on Personally Identifiable Information to uphold the "do no harm" concept. In addition, the survey was limited to participants who were eighteen years of age or older and with a solid understanding of the majority of household issues.
- Before conducting each survey, REACH ensured that enumerators obtained consent from respondents. Enumerators read a consent note to each respondent, clearly stating the purpose of the assessment, the sectors to be covered, and the length of the survey and emphasizing the voluntary basis of participation.
- REACH obtained letters of authorization from the local authorities before starting the data collection exercise. In addition, the County administration and other stakeholders in the locations were visited and informed of the timing and purpose of the data collection team's visit.
- All necessary personally identifiable data collected was not shared with external partners and access to the information was restricted within REACH. Any other personally identifiable information was deleted before the publication of the dataset.
- All respondents were provided with the Complaints and Feedback Mechanism (CFM) phone number managed by ACTED.

Limitations and challenges

- Limitations arising from interviewing the head of household: The 2023 MSNA household survey targeted the head of the household, who reported by proxy on the rest of the household members. As a result, responses might not accurately reflect the lived experiences of individual household members, who may be more vulnerable. Additionally, intra-household dynamics (including intra-household power relations across gender, age, and disability) could not be captured through this method.
- **Reporting bias:** Certain indicators may be under or over-reported due to the subjectivity and perceptions of respondents. For instance, indicators with an extended recall period of six months (such as questions related to access to humanitarian assistance) may be liable to a certain degree of inaccuracy, as they are dependent on the respondent's ability to remember events in the past.
- **Subset indicators**: Findings related to a subset of the overall population may have a wider margin of error, potentially yielding results with lower precision. Any findings related to subsets are indicated as such throughout the output.
- Underrepresentation of certain population groups in specific locations: Due to the small number (2%) of internally displaced persons (IDPs), returnees, and refugee groups, analysis based on population groups could not be conducted with a known level of precision in certain counties.

ANALYSIS OF LIVING STANDARD GAPS

Each year, REACH facilitates the collection and analysis of crisis-level data across sectors and population groups through Multi-Sector Needs Assessments (MSNA) to support decision-making by humanitarian actors. MSNAs are conducted within a strong partnership framework at sector and inter-sector level. They are timed in order to inform strategic decision-making milestones along the humanitarian programme cycle (HPC), such as the Humanitarian Needs Overview (HNO) and the Humanitarian Response Plan (HRP).

Note: The MSNA data analysis framework is completely independent from the Joint Inter-Sector Analysis Framework (JIAF). While some of the conceptual elements for the MSNA do come from the JIAF 1.1 (e.g. 'Living Standards Gap', indicators, severity categories), the methodology used is different. Furthermore, the JIAF is being developed through an inter-agency group and implemented primarily to produce intersectoral PiN (and area-level severity) using different data sources available in-country. Meanwhile, the REACH MSNA analysis method was developed internally by REACH and is implemented primarily using household-level data collected through the MSNA. In line with the research questions, the analysis aims to provide a crisis-wide overview of humanitarian needs and the underlying drivers that influence access to basic needs and services.

The methodology relies on a two-step aggregation process (see Figure 1):

- Aggregation of indicators at the sector level: Construction of sectoral Living Standard Gaps (LSG), see Annex 3 for further details;
- (2) **Aggregation of sectoral LSGs into a multi-sectoral composite result**: Multi-Sector Needs Index (MSNI), see Annex 4 for further details.



Figure 1: Approach for the MSNA analysis



The key analytical components are:

- Living Standard Gap (LSG): signifies a need in a given sector, where the LSG severity score is 3 or higher.
- **Livelihood Coping Strategies Index (LCSI)**: signifies that negative and unsustainable coping strategies are used to meet needs. Households not categorised as having an LSG may be maintaining their living standards through the use of negative coping strategies.
- **Severity**: signifies the "intensity" of needs, using a scale that ranges from 1 (minimal/no gap) to 4 (extreme needes)/4+ (very extreme needs).
- **Magnitude**: corresponds to the overall number or percentage of households in need.
- **The Multi-Sectoral Needs Index (MSNI)** is a measure of the household's overall severity of humanitarian needs across sectors (expressed on a scale from 1 to 4+), based on the highest severity of sectoral LSG severity scores identified in each household.

The severity scale is based on the type of severity scales that exist in versoin 1.1 of the Joint Intersectoral Analysis Framework (JIAF), an analytical framework being developed at the global level to improve understanding of the needs of affected populations. This framework measures the gradual deterioration of a household's situation towards the worst possible humanitarian outcome. While the JIAF severity scale includes 5 classes ranging from 1 (none/minimum) to 5 (catastrophic), for the purpose of this MSNA, only a scale of 1 (none/minimum) to 4 (extreme) is used. The "4+" score (very extreme) is used when the data indicates that the situation could be catastrophic. But the term "catatstrophic" is not used in this analysis. This is because the data needed to establish a "catastrophic" score is mainly collected at the area level (e.g. mortality rates or malnutrition prevalence), which is difficult to take into account in an analysis at the household or individual level.

The different levels of severity can be broadly defined as follows:

- Very extreme (4+): Indications of total collapse of living standards, with potentially immediately life-threatening outcomes (increased risk of mortality and / or irreversible harm to physical or mental well-being).
- **Extreme (4)**: Collapse of living standards. (Risk of) significant harm to physical or mental wellbeing.
- **Severe (3)**: Degrading living standards, with reduced access to / availability of basic goods and services. (Risk of) degrading physical or mental well-being.
- **Stress (2)**: Living standards are under stress. Minimal (risk of) impact on physical or mental wellbeing / stressed physical or mental well-being overall.
- **Minimal (1)**: Living standards are acceptable, at a maximum showing some signs of deterioration and / or inadequate access to basic services. No or minimal (risk of) impact on physical or mental well-being

To construct these scales, some indicators are identified. There are two types of indicators: critical and non-critical indicators.

• **Critical indicator**s: Critical indicators are those that by themselves can indicate any severity above 1, i.e. severity levels 2 to 4+ (see definition of severity levels above).

• **Non-critical indicators**: Non-critical indicators are those that are generally indicative of lower levels of severity, and by themselves would not be considered to justify assigning a severity level greater than 1 to a household. In combination, however, the gaps experienced according to the non-critical indicators can indicate severity levels 2 or 3.

Based on the severity scale, LSG scores (by sector) were then calculated by aggregating indicators by sector. A simple aggregation methodology was identified, based on the Multidimensional Poverty Index (MPI) aggregation approach. *For details on the agregation methodology, please refer to Annex 3.*

The Multi-sectoral Needs Index (MSNI) is a measure of the overall severity of needs experienced by a household over all sectors (expressed on a scale of 1 to 4/4+), based on the highest LSG severity score for a given sector and identified within each household. The MSNI approaches multi-sectoral needs from an overall perspective. A household is considered in need if any of its sectoral LGG score is 3 or higher. Whether a household has very severe need in a single sector or co-occurring severe needs in several sectors, its final MSNI score will remain the same. While this approach makes sense from a response planning perspective—if a household has an extreme need in a single sector, this may substantiate a humanitarian intervention regardless of the co-occurrence with other sectoral needs—, further analyses are needed to unpack the MSNI and understand these differences in magnitude and severity between households. *For details on the MSNI construction, please refer to Annex 4*.



ANNEXES

Annex 1: Related publications (terms of reference, datasets, MSNA Framework)

All documentation and outputs related to the 2023 MSNA in KENYA are available on the REACH Resource Center:

- The Terms of reference is published here.
- The Dataset is published <u>here</u>:
- The LSG Framework is available upon request.

All REACH multisectoral outputs can be found *here*.



Annex 2: Indicators used for the Living Standards Gaps and Capacity Gaps

Indicators from the following sectors were used in the analysis: Food security, Cash, markets and livelihoods, Education, Shelter and Non-Food Items, Health and Nutrition, Protection, and WASH. Additional details of the response options and thresholds that were used for the Kenya analysis for each sectoral LSG and the Capacity Gaps can be provided upon request.

An example of a WASH critical indicator is shown below:

			No LSG identified		LSG identified		
Indicator	Question(s)	Response options	Severity level 1	Severity level 2	Severity level 3	Severity level 4	Severity level 4+
% of households having had access to an improved water source	What is the main source of drinking water for members of your household?	List of water sources	Improved water source (Piped into dwelling/house or piped into compound, yard or plot)	Improved water source within 30 minutes	Improved water source more than 30 minutes return time	Unimproved water source (Unprotected well, Unprotected spring)	Surface water (Dam,river, rock catchment,lake)
% of households reporting distance to a water source	How long does it take to go there, get water, and come back?	Integer	no (0 times)	Rarely (1– 2 times)	Sometimes (3–10 times)	Often (11-20 times)	Always (more than 20 times)



Annex 3: Living Standards Gap – Aggregation

The analysis is conducted in 3 steps:

(A) Combination of critical indicators into a final score for the critical component

With the exception of the Food Security LSG, the final sectoral severity score of a household for the critical component will always be the maximum severity level it obtained on any of the included critical sectoral LSG indicators (or combination of indicators) (see Table 3 below as an example).

(B) Combination of non-critical indicators into a final score for the non-critical component

The final sectoral score for the non-critical indicators (where available) will be obtained as follows:

1. Calculate the average of all included non-critical indicators (average of binary values).

2. Assign severity levels as follows:

- Severity level 1: Non-critical indicator average <= 1/3
- Severity level 2: Non-critical indicator average <= 2/3 & > 1/3
- Severity level 3: Non-critical indicator average > 2/3

(C) Combination of the critical and non-critical components into a final sectoral LSG score

The final sectoral LSG score will be the maximum severity level reached across your critical and non-critical components. If no non-critical component is included, it will just be the result of the critical component. Figure 3 below summarizes the aggregation process.



Figure 2: Aggregation of critical and non-critical indicators into a final LSG score

Annex 4: Multi-Sectoral Needs Index – Aggregation

The final 'multi-sectoral severity level' or Multi-Sector Needs Index (MSNI) is obtained for each household as the maximum severity level the household scored across all sectoral LSGs (see Table 4 below):

MSNI = max(Food Security LSG, Livelihoods LSG, WASH LSG, Health LSG, Education LSG, Protection LSG)

	Sectoral LSG severity score					Мели	
	Food sec	Health	WASH	Protection	Education	Etc.	MONI
HH1	4	4	4	4	3	3	4
HH2	2	2	4	2	1	1	4
HH3	3	3	3	4+	2	1	4+
HH4	2	3	1	1	2	1	3

Figure 3: Example of MSNI calculation per household

