

2022 Libyan Population MSNA Methodology Overview

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METHODOLOGY OVERVIEW

Objectives & research questions

Building on its experience conducting Multi-Sector Needs Assessments (MSNAs) in Libya since 2016, REACH, on behalf of the Humanitarian Country Team (HCT), the Inter-Sector Coordination Group (ISCG) and the Assessment Working Group (AWG) proposes that MSNAs be conducted in Libya on an annual basis to continually inform and update humanitarian actors' understanding of the needs that exist in the country, while also providing trends analysis where possible. These MSNAs are conducted with strong linkages to and in coordination with the HCT and the HNO process.

After two years of carrying out data collection remotely due to movement restrictions and health measures imposed by the COVID-19 pandemic, the 2022 Libyan population MSNA went back to a full in-person data collection, resulting in findings that are representative across all covered baladiyas and population groups in Libya. REACH designed the data collection set-up and analysis tools, and consulted with each sector active in the Libyan response to revise indicators.

The aim of the 2022 MSNA was to deliver up-to-date information for humanitarian and development actors, on the severity of humanitarian and development conditions of crisis-affected Libyan populations in all baladiyas across the country, with the aim of contributing to a more targeted and evidence-based humanitarian response, including to a durable solutions approach. To approach this objective, the MSNA sought to answer the following research questions:

- Pre-existing vulnerabilities
 - a. What proportion of households have pre-existing vulnerability?
 - b. How do levels of pre-existing vulnerability differ based on:
 - i. Assessed baladiya¹;
 - ii. Assessed population group (i.e. internally displaced persons (IDPs), returnees and non-displaced)?
- Humanitarian conditions (living standards and well-being):
 - a. What is the level of living standards for Libyan households across the following sectors and thematic areas - Food Security, Cash & Markets, Livelihoods, Shelter & Non-Food Items (NFIs), Water, Sanitation, and Hygiene (WASH), Education, Health and Protection (including Gender-Based Violence (GBV), Child Protection, and Mine Action)?
 - b. How do living standard gaps differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e., IDPs, returnees and non-displaced)?
 - iii. Pre-existing vulnerability profile?
- To what level do Libyan households report using coping mechanisms across the following sectors:
 - a. Food Security, Cash & Markets, Shelter & NFIs, WASH, Education, Health and Protection?
 - b. And how do those coping mechanisms employed differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e. IDPS, returnees and non-displaced)?

¹ A baladiya – corresponding to a 'municipality' – is the third level of geographic classification (ADM3) in Libya after region (ADM1) and mantika (ADM2) and represents the principal level at which findings will be communicated during the 2022 MSNA.

- iii. Pre-existing vulnerability profile?
- The severity of humanitarian needs:
 - a. What is the overall severity of humanitarian needs?
 - b. What proportion of households fall into each severity category?²
 - c. And how does the severity of humanitarian needs differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e. IDPS, returnees and non-displaced)?
 - iii. Pre-existing vulnerability profile?
- To what extent have durable solutions been reached for Libyans:
 - a. What is the overall situation of durable solutions reached?
 - b. What proportion of households have reached durable solutions for what development aspects?
 - c. And how does the proportion of households having reach durable solutions for certain aspects of development, differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e. IDPS, returnees and non-displaced)?
 - iii. Pre-existing vulnerability profile?
- Current and forecasted priority needs/concerns:
 - a. What key factors may affect Libyan households' needs in the future?
 - b. And how do current priority needs/concerns differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e. IDPS, returnees and non-displaced)?
 - iii. Pre-existing vulnerability profile?
- What are households' self-identified needs and preferences around the provision of humanitarian aid?
 - a. And how do these needs and preferences differ by:
 - i. Assessed baladiya?
 - ii. Population group (i.e. IDP, returnees and non-displaced)?
 - iii. Pre-existing vulnerability profile?

² The severity of humanitarian needs is determined based on a number of composite indicators (including living standard gaps, capacity gaps and pre-existing vulnerability), each of which falls under one of the four pillars of the Joint Intersectoral Analysis Framework (JIAF) (the principle analytical framework employed in this assessment, outlined in detail in the body of this Terms of Reference). Based on the collective outcomes witnessed in these composite indicators, households are divided into different severity ratings (or categories) which classify their overall severity of humanitarian needs, from 1: None / Minimal, to 2. Stress, 3. Severe, 4. Extreme and 4+ "Extreme +". Different severities of humanitarian needs help actors understand the different objectives to be employed by the humanitarian response.

Scope

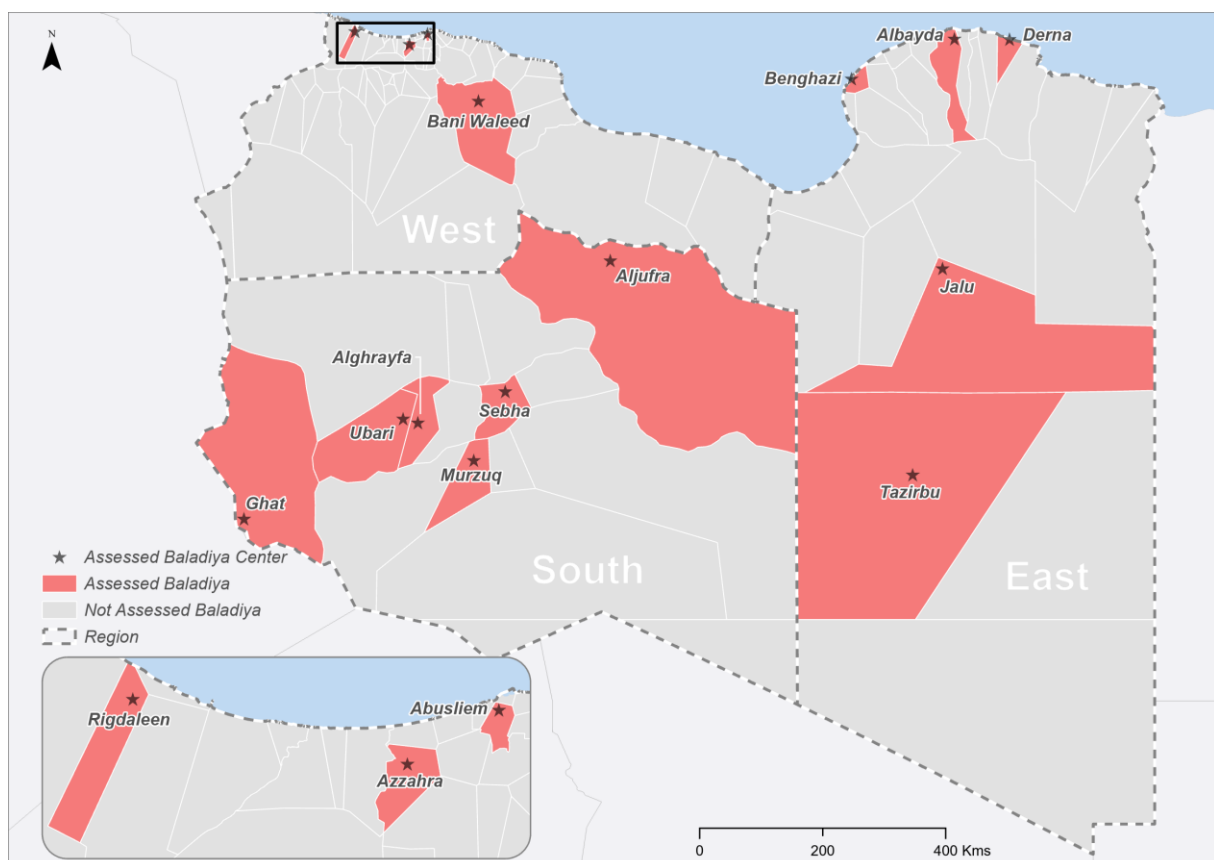
The 2022 MSNA covered 3,758 households across 15 baladiyas (see coverage map below). The locations were prioritised based on several criteria, namely the 2022 Humanitarian Needs Overview (HNO) severity calculations, the percentage of households with two or more sectoral needs according to the 2021 MSNA, and the size of the IDP and returnee populations.

This MSNA targeted three population groups: IDPs, returnees, and non-displaced communities. For the purpose of analysis, these groups were defined as follows:

- Internally displaced households: Households who have been forced to flee or leave their homes once/multiple times after 2011, due to the conflict and violence, and were still living in displacement at the time of data collection. Displacement can have occurred within a baladiya, or to another baladiya.
- Returnee households: Households who have been forced to flee or leave their homes once/multiple times after 2011, due to the conflict and violence, but have since returned to their place of origin after this/these time(s) of displacement. Displacement can have occurred within a baladiya, or to another baladiya.
- Non-displaced households: Households who have not been forced leave their homes at any time after 2011, due to the conflict and violence, and so have not lived/are not living in displacement.

The assessment covered the following sectors and thematic areas: Food Security, Cash & Markets, Livelihoods, Shelter & Non-Food Items (NFI), Water, Sanitation, and Hygiene (WASH), Education, Health and Protection (including Gender-Based Violence (GBV), Child Protection, and Mine Action).

Map 1: Assessment coverage



Sampling strategy

To enable the comparison between the non-displaced, returnee, and IDP populations across all assessed baladiyas, a stratified sample approach (probability sampling) was used to set the targets for the quantitative data collection, which took place face-to-face. The sampling frame consisted of the figures of people per population group per baladiya, with the number of IDPs and returnees calculated by deducting these sub-groups (taken from The International Organization for Migration's Displacement Tracking Matrix (IOM-DTM) round 41) from the overall population (taken from The United Nations Population Fund (UNFPA) August 2020). Then, a representative sample was drawn for each population group per baladiya, aiming to provide findings that are generalisable for all strata with a 95% level of confidence and 10% margin of error.

A combination of two probability sampling methods was applied: cluster sampling and random sampling. These methods were determined by the geographical characteristics of the surveyed population sub-groups. In general, the non-displaced populations were large and widespread across all baladiyas in Libya, and thus cluster sampling could be used to sample for this population group in all 15 baladiyas. For this, the distribution of the population across Libya was derived from the WorldPop dataset, a raster-based dataset that divides the country into a grid of 500m² pixels, providing information about the population density per pixel. Those pixels containing a population of less than 100 inhabitants were removed, as those very sparsely populated areas are not feasible to have included into the sampling. By plotting the overall population numbers from the latest available data (UNFPA population projections of August 2020) over this grid, estimates of the Libyan population were created for each pixel.

Trough cluster sampling, locations of 500m by 500m were drawn for each baladiya with a probability based on population density, meaning that locations with a higher population density were more likely to be selected, or may have been selected multiple times. The primary sampling unit (PSU) was 4 households (with 0.06 as the intra-cluster correlation). This means that in general, when a location was sampled once, 4 household interviews needed to be conducted there, when it was selected twice, 8 household surveys needed to be conducted there, etc. By applying the method of cluster sampling to sample for the non-displaced households, the target number of surveys could be adjusted (increased) to counterbalance the design effect of this methodology. Specific guidelines were given to the enumerators on how to go about selecting the required number of households randomly, per sampled location of 500m by 500m – see the explanation box below.

Box 1: Sampling guidelines :

To ensure that the enumerators selected the required number of households randomly within a location – a circle with a 500m radius – without having too many different guidelines (given the large scope of data collection and complexity of the full exercise) the following approach was explained to them.

Firstly, enumerator teams (consisting of 4 members) should go to the midpoints of the locations, for which they have the GPS coordinates, presented on a map together with the 500m radius around it marking the area of the location where to select the households. Then, depending on the number of surveys to conduct in a location, different guidelines should be used. When there are only 4 or 8 surveys scheduled (most common scenarios) and the location midpoint is at/near a crossroad, they apply the “throw-the-pen method” to decide on the directions to follow (which is not needed when the midpoint of the location is in/near a street). Enumerators move in pairs of two in opposite directions, to conduct a household survey every 100 and 300 steps (in the case of 4 surveys) and two interviews every 100 and 300 steps (in the case of 8 surveys). When there are 12, 16 or 20 surveys to conduct (although it occurs less often to conduct these higher numbers of interviews in a location), enumerators should spread out in all 4 directions (independently) and conduct several surveys every 100, 300, or 500 steps. For example: with 12 surveys per location, every enumerator would conduct 3 surveys (so one at 100, 300 and 500 steps), whereas with 16 surveys per location, every enumerator would conduct 4 surveys (so one at 100, two at 300 and one at 500 steps) and with 20 surveys per location, every enumerator would conduct 5 surveys (so two at 100, one at 300 and two at 500 steps). When also displaced households must be selected, these numbers will differentiate (not necessarily be a multiple of 4), hence the followed guidelines will need to be adjusted according to the number of surveys.

Each location will be assigned to one enumerator team only, for which they know the number of surveys to conduct, with what type(s) of population group(s). For most locations however, households of only one population group type – mainly non-displaced – have to be selected. It is important that enumerators stay within the boundaries of their designated locations, as otherwise they will be prevented from proceeding with a survey when taking the coordinates.

For the displaced population groups (IDP and returnee households), the geographical areas and data available was precise enough so that a two-stage random sampling methodology could be used. Hence, households (as PSUs) were randomly selected with probabilities based on population size, which avoided sending enumerators to areas without IDP or returnee households, as the displaced population groups are not widespread across the country. Muhalla-level (Admin 4) displacement figures were taken from the most recent IDP-returnee population dataset available, round 41 of IOM-DTM for Libya (February-April 2022). The numbers of household surveys to conduct per baladiya were generated based on the size of the IDP and returnee populations in every muhalla, across all baladiyas where a minimum of 25 IDP or returnee households were living. Due to a lack of detailed information on muhalla-borders, muhallas’ midpoint coordinates were used as centres around which a radius (with its size based on the displaced population living there) was drawn. The maximum number of surveys to conduct in one muhallah was 100. The sampled numbers of points were then randomly plotted in these areas, over which the grid of 500m² pixels was projected, resulting in a final list of the number of household surveys to conduct per each selected location.

This way, the guidelines for enumerators were similar across population groups (non-displaced and displaced), for convenience. Enumerators received a map with locations, shown as midpoints with a radius of 250m around it. Each location contained as attributes a location ID and the number of household surveys that were required per population group. To ensure the spatial correctness of where the household surveys were taking place, it is only possible for enumerators to proceed with their questionnaire in Kobo if they were finding themselves in the exact locations designated to them: an entered location ID will need to match with the GPS coordinates taken at the spot.

Furthermore, clear guidelines are explained to the enumerators on how to go about randomly selecting a number of households (of a certain population group) within a given location, as outlined in the

information box below. They were also instructed in how to go about what to do when there are not enough houses available in a location, etc. To ensure women's voices were equally included in the final dataset, enumerators were encouraged to also interview female respondents as much as possible (ideally obtaining a 50-50 split).

Data collection

Quantitative data collection took place between the 4th of July and the 4th of October 2022 and covered a total of 3,758 households. Households were interviewed through a structured, 50-minute interview, covering all humanitarian sectors active in the Libyan response. All surveys were conducted in person through enumerators working with Libyan civil society organisations (CSOs).

All surveys were developed in English by REACH together with the sectors, and translated to Arabic by REACH staff. The surveys were carried out through the survey platform KoBo Toolbox, a free, open-source tool for mobile data collection which uses XLSForm. Surveys were uploaded to REACH servers daily. Data checking and cleaning took place daily during the period of data collection, and included the identification of outliers, correct categorisation of "other" responses, and the removal and / or replacement of incomplete or inaccurate records. Hence, the data cleaning checks were done in alignment with the [IMPACT Data Cleaning Minimum Standards Checklist](#). Data cleaning and checking also entailed the deletion of surveys which contain discrepancies that cannot be corrected. All changes to the dataset were documented in a data cleaning log maintained in excel and published alongside [the final clean dataset](#). Data checking was systematised through a script produced in R.

Prior to data collection, enumerators received comprehensive training facilitated by REACH and conducted by the data collection organisation's focal point. The training included training on the tool and referral pathways. Training also included details on ethical data collection to ensure that enumerators abided by international protection standards. The guiding principles of 'Do no harm', confidentiality, and respect were presented during the training. Cultural and gender considerations, and how to deal with these dynamics during interviews, were also discussed. Focal points were trained on how to obtain the informed consent of all respondents prior to conducting the interview. Enumerators were reminded to respect both the voluntariness and gratuitousness of participation, as well as the respondent's anonymity. For more details on the training, please see Annex 7.

Analysis

The REACH MSNA analysis method (see annex 8) was developed internally by REACH and is implemented primarily using 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, including pre-existing vulnerabilities, that influence access to basic needs and services. The key analytical components are:

- **Living Standard Gap (LSG):** signifies an unmet 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 need) to 4 (extreme needs)/4+ (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 inspired by the draft Joint Inter-Sector Analysis Framework (JIAF), an analytical framework being developed at the global level to enhance understanding of needs of affected populations. The framework measures a progressive deterioration of a household's situation towards the worst possible humanitarian outcome. While the JIAF severity scale includes 5 classifications ranging from 1 (none/minimal) to 5 (catastrophic), for the purpose of the MSNA, only a scale of 1 (none/minimal) to 4 (extreme) is used. This is because data that is needed for Phase 5 classification (catastrophic) is primarily at area level (for example, mortality rates, malnutrition prevalence, burden of disease, etc.) which is difficult to factor into household level analysis. Additionally, without global guidelines from the inter-agency group, and given the response implications of classifying a household or area as severity 5 (Catastrophic), REACH is not in a position to independently verify if a severity 5 is occurring.

Based on the severity scale, LSG scores (per sector) were then produced by aggregating unmet needs indicators per sector. For the 2022 MSNA, a simple aggregation methodology was identified, building on the Multi-Dimensional Poverty Index (MPI) aggregation approach. Using this method, each household was assigned a "deprivation" score according to its deprivation in the component indicators. The deprivation score of each household was obtained by calculating the percentage of the deprivations experienced, so that the deprivation score for each household lies between 0 and 100. The method relied on the categorisation of each indicator on a binary scale: does ("1") /does not ("0") have a gap. The threshold used to determine whether a household was considered to have a particular gap or not was determined in advance for each indicator together with the relevant sectors. In addition to these binary indicators, a subset of 'critical' indicators were also identified, which by themselves could indicate a severe or very severe need within the household. The final LSG severity score was then determined by taking the higher of the two scores i.e. aggregated score or the critical indicator score. For more information on the identification of LSGs and CGs, please refer to Annex 8.

The MSNI is a measure of the household's overall severity of humanitarian needs (expressed on a scale of 1 to 4), based on the highest severity of sectoral LSG severity scores identified in each household. The MSNI approaches multi-sectoral needs from a big-picture perspective. Regardless of whether a household has a very severe LSG in just one sector or co-occurring severe LSGs across multiple sectors, their final MSNI score will be the same (more details on the aggregation methodology can be found in Annex 3.) While this approach makes sense from a response planning perspective (if a household has an extreme need in even one sector, this may warrant humanitarian intervention regardless of the co-occurrence with other sectoral needs), additional analysis should be done to understand such differences in magnitude and severity between households. In addition to the MSNI, [the bulletin](#) includes additional analysis on the overall proportion of households by severity of needs, the overall proportion of households in need by types of needs (i.e. LSGs), the overall proportion of households in need by the total number of sectoral LSGs, and the most common needs profiles (combinations of LSGs).

Box 2: Previous MSNAs & why findings cannot be compared

The 2021 MSNA drew on similar analytical concepts and followed a similar analytical approach. However, comparability with 2021 findings is not advised and can only be considered as indicative of broader trends due to the differences in sampling and geographic coverage.

Secondary data

In 2022, a secondary data review (SDR) was conducted, building on the SDR conducted for the 2021 MSNA. The main sources identified through the SDR encompassed:

- **New and updated population data used to create the sampling frame:** [IOM-DTM Round 41](#) data for February-April 2022 (the most recent iteration available) have been used to calculate IDP and returnee population figures. The [UNFPA/Libyan Bureau of Statistics 2020 population projections for Libya](#) were published shortly after quantitative data collection for the 2020 MSNA was finalised and are the most updated population estimates available and have been used this year to establish the overall population frame.
- **Updated reports on the humanitarian context:** This year's SDR drew on secondary data reports on the humanitarian context in Libya that have been published since last year's SDR was completed. These reports included: the [2022 Humanitarian Needs Overview](#) for Libya; [REACH reports on Libya](#) from the last 12 months, including the [2021 Libyan population MSNA](#) report; and publications by other humanitarian actors published within the last 12 months. The data was used to verify/triangulate primary data and findings.
- **Updated reports on the political/economic/social context:** The SDR has also drawn, as necessary, on reports released within the last 12 months covering contextual information on Libya's political, economic, and social conditions. These reports have been sourced from news publications, think tanks, and other institutions with expertise on Libya. This information has been used to contextualise the findings gathered through primary data collection.

As a counterpoint to the above, certain types of secondary data on Libya relevant to this MSNA are scarce. These include:

- **Mortality, morbidity and malnutrition data:** No up-to-date, baladiya level figures on mortality, morbidity or malnutrition rates are available. The 2022 MSNA questionnaire did not gather data on mortality, morbidity or malnutrition rates, which constitutes a potential information gap. However, national-level figures on these topics are available and have been drawn upon for the SDR.
- **Reports by government or other humanitarian actors on community or location-level vulnerabilities, impact on systems and services, living standards, and coping mechanisms:** Few government or other humanitarian actors have the resources and/or the access to conduct assessments on the impact of the protracted crisis or current humanitarian conditions. This means that there are relatively few secondary sources that REACH can use to triangulate results on these topics. The exception is a select set of locations where REACH has conducted or is in the process of conducting [2021 Sebha Area-based Assessment](#) and [Area Based Assessment in Ejdabia/Ajdabiya](#).

Ethical considerations

As in previous and all assessments, REACH considered and investigated the ethical implications of data collection and information dissemination. First, in order to adhere to the "do no harm" principle, REACH conducted a "do no harm" analysis during the design phase. All questions in the tools were assessed against IMPACT Initiatives' Standard Operating Procedures on Personally Identifiable Information. Where personal data was collected, it was not shared with external partners and access to the information was restricted within REACH. All raw data was stored on password protected KoBo Toolbox servers using a secure sockets layer (SSL). Any other personally identifiable information was deleted before publication of the dataset. Second, enumerator training included modules on survey ethics (see annex 7 for further information on the training). Third, all data collection components required informed consent from the respondent. Finally, a script was presented to all respondents outlining the nature and purpose of the assessment, and emphasising the voluntary basis of participation.

Challenges and limitations

- **Representativeness of the findings:** One baladiya stratum (Azzahra, Aljfara) was under-sampled due to operational constraints. The result for this stratum are not generalisable with a known level of precision and should be considered indicative only.
- **Gender-sensitivity:** Due to the small number of female respondents (17%), and due to the hard-to-reach nature of this population group, gender-based analysis of needs cannot be conducted with a known level of precision.
- **Limitations of household surveys:** While household-level quantitative surveys seek to provide quantifiable information that can be generalised to represent the populations of interest, the methodology is not suited to provide in-depth explanations of complex issues. Thus, questions on “how” or “why” are best suited to be explored through qualitative research methods.
- **Limitations arising from interviewing the head of household:** The 2022 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 lived experiences of individual household members, who may be more vulnerable. Additionally, intra-household dynamics (including intra-household power relations across gender, age, disability) could not be captured through this method.
- **Respondent bias:** Certain indicators, such as children living outside the household due to marriage, recruitment in armed groups, or questions on income and expenditure may be prone to under-reporting due to sensitivity and respondent perceptions. In addition, some respondents might have the tendency to provide what they perceive to be the “right” answers to certain questions (i.e. social desirability bias) or provide answers which they believe might increase their likelihood of receiving aid. Enumerators were trained and asked to provide respondents with detailed information on the MSNA objectives and the outcome of the assessment to mitigate respondent bias.
- **Subset indicators:** Findings related to a subset of the overall population are based on smaller sample sizes, potentially yielding results with lower precision. These findings should be interpreted with particular caution.

ANNEXES

Annex 1: Terms of reference and data

The following documents and publications relating to the 2022 Libyan Population MSNA can be found on the REACH Resource Centre:

- [Terms of Reference \(ToR\)](#)
- [Quantitative tool](#)
- [Dataset](#)
- [Results tables in English and Arabic](#)
- [Joint Analysis Workshop \(JAW\) presentation \(November 2022\)](#)
- [Key findings presentation \(December 2022\)](#)

Annex 2: Key definitions

1. Capacity gap (CG): A household with a CG is one that is relying on negative, unsustainable coping mechanisms to meet its basic needs at the time of data collection. A household may have a CG but no LSGs, meaning that it is meeting its basic needs, but only through reliance on these coping mechanisms. Alternatively, a household may have both a CG and LSGs in one or more sectors, indicating that the household is unable to meet its basic needs despite its use of coping mechanisms. The CG was measured through the common Livelihoods Coping Strategies Index (LCSI) composite indicator.

3. Coping mechanisms: Coping mechanisms indicate the degree to which households are coping or facing challenges with impact recovery. In general, coping mechanisms can be positive or negative (e.g., displacement), sustainable or unsustainable (e.g., reliance on humanitarian aid). This assessment focuses only on negative coping mechanisms, as they can be erosive over time and may forecast future needs. Whereas in the context of an acute crisis, an analysis of coping mechanisms might focus on food consumption behaviour, in the case of Libya (a protracted crisis), this analysis focused on coping mechanisms addressing the lack of resources in general.

5. Household: For the purpose of this MSNA, a household was defined as a group of people who live in the same dwelling and share food and other key resources. In the event of any ambiguity, survey respondents had the final say on who belongs to their household.

8. Internally-displaced households (IDP): Households who have been forced to flee or leave their homes once/multiple times after 2011, due to the conflict and violence, and were still living in displacement at the time of data collection.

9. Living standards: As a result of the impact, the ability of households to meet their basic needs, such as water, shelter, food, healthcare, education, protection, etc. Basic needs may vary from one context to the other and are contextually defined with relevant partners/sectors. Living standards are measured by assessing accessibility, availability, quality, use and awareness of essential goods and services.

10. Living Standard Gap (LSG): signifies an unmet need in a given sector, where the LSG severity score is 3 or higher.

11. Non-displaced households : Households who have not been forced to flee or leave their homes at any time after 2011, due to the conflict and violence, and so have not lived/are not living in displacement.

13. Returnee households: Households who have been forced to flee or leave their homes once/multiple times after 2011, due to the conflict and violence, but have since returned to their place of origin after this/these time(s) of displacement.

14. Severity: Signifies the “intensity” of needs, using a scale that ranges from 1 (minimal/no) to 4+ (extreme+).

Annex 3: Detailed individual survey sampling strategy and process

Data sources

Two datasets were used to create the assessment's sampling frame:

- UNFPA/Libyan Bureau of Statistics 2020 population dataset for Libya: Total population figures for all baladiyas covered and non-displaced population sizes were based on this dataset.
- IOM-DTM Round 41 (February-April 2022) dataset: IDP and returnee population figures were drawn from IOM's Displacement Tracking Matrix (DTM) Round 41 data on Libya.
- These population data sources were combined to calculate the number of non-displaced households in all baladiyas targeted by this assessment. The number of non-displaced households each in baladiyas was calculated by subtracting the number of IDP and returnee households (from the IOM-DTM figures) from the total number of households (from the UNFPA population data). The numbers derived from this process were used for establishing sample sizes.

Calculation of sampling quotas for each stratum

Sampling quotas were determined at population group level (returnee, IDP, non-displaced) in each baladiya. These quota calculations used 95% confidence interval and a 10% margin of error (unless otherwise noted) as parameters. The sample sizes also included a 5% buffer of extra surveys, though most of the buffer was dropped by the end of data collection. Findings for Internally displaced in Azzahra are indicative.

Annex 4 contains the final sampling frame and survey totals.

Sampling in practice

The 2022 MSNA household surveys were conducted entirely in person, through CSO enumerators. Sampling relied on a stratified sample approach (probability sampling) that set the targets for the quantitative data collection. The sampling frame consisted of the figures of people per population group per baladiya, with the number of IDPs and returnees calculated by deducting these sub-groups (taken from IOM-DTM round 41) from the overall population (taken from UNFPA August 2020).

Annex 4: Sampling Frame

Research sampling with buffer					
Region	Baladiya	Total number of surveys collected			
		Non-displaced households	IDP households	Returnee households	Total
West	Abusliem	124	94	101	319
	Azzahra	124	82	90	296
	Bani Waleed	120	90	0	210
	Rigdaleen	124	0	80	204
East	Jalu	128	55	0	183
	Tazirbu	136	0	0	136
	Benghazi	120	100	101	321
	Albayda	124	86	0	210
	Derna	124	79	101	304
South	Murzuq	132	88	57	277
	Ghat	128	86	0	214
	Ubari	120	75	100	295
	Alghrayfa	128	84	0	212
	Sebha	120	92	93	305
	Aljufra	124	92	59	275
Total		1876	1103	782	3761

Annex 5: Data processing and quality control

Data from the household surveys was collected via the KoBo Toolbox platform, using the ODK Android application. The coded survey tool included integrated logical controls and checks that were designed to reject inconsistent data, or data of the wrong type.

During the household survey data collection period, enumerators submitted their completed surveys ideally on a daily basis, provided internet connectivity would allow. All submitted surveys were passed to the REACH Database Officer for cleaning. The Database Officer would take the following steps:

- Anonymise all personal information
- Check for any duplicates
- Run a data cleaning script that flagged any inconsistent or nonsensical data, based on a pre-defined list of potential errors.

The anonymised data was passed on to the assessment officers, who checked all flagged errors manually and decided to leave, change, or remove the data point depending on the specifics of the error and agreed on rules between the assessment officers. Where errors could not be explained, follow-ups were conducted with the enumerators. All errors and their correspondent actions were tracked in a joint cleaning log, which was cross-checked by both assessment officers to ensure consistency in cleaning. Any newly identified errors were added to the automated script where necessary during the cleaning process. The final cleaned dataset was checked once more by the Database Officer to identify and remove any outlying data points.

All surveys were additionally checked on duration; any survey that took less than 20 minutes was regraded as suspicious and rejected. For all surveys between 20 and 30 minutes' enumerator follow-ups took place.

Annex 6: List of partners

Funded by:

- Bureau for Humanitarian Assistance (BHA)
- Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO)

Research design/tool development, consulting partners:

- Humanitarian Country Team (HCT)
- Office for Coordination of Humanitarian Affairs (OCHA)
- Assessment Working Group (AWG)
- Inter-sectoral Coordination Group (ISCG)
- Protection Sector
- Child protection AoR
- GBV AoR
- Mine Action AoR
- Mental Health and Psyc-social support AoR
- WASH sector
- Health sector
- Food Security Sector
- Education sector
- SNFI sector
- Cash and Markets Working Group (CMWG)
- Emergency Telecoms Sector
- Livelihoods Working Group

Contracted quantitative data collection partners:

- Enmaa
- Namaa
- Lifemakers
- LIBAID
- Baweder

Annex 7: Agenda of enumerator training (quantitative)

Training Session	Sub-sections	Facilitator
Introduction	- What is REACH? - Why do we need data? - REACH in Libya - Why an MSNA? - What is an MSNA? - Sectors covered in the MSNA	REACH in-person + Quiz
Key terms and definitions	Key terms (enumerator, focal point, respondent, sector, assessment, data, survey, respondent, population groups, migrant, refugee)	REACH in-person + Quiz
Safety & Security, Survey Ethics, Data Protection, and Complaint & Response Mechanism	- Ethical data collection – key principles - Data responsibility – process overview - Data responsibility – enumerator's role - Survey Ethics: Informed consent, respect, empathy - Survey Ethics: Confidentiality - Data protection - Data disposal - Safety & security of enumerators - Complaint mechanism - How to deal with difficult situations	REACH in-person + Quiz
Assessment purpose and scope	- Overview - Objective and outputs - How do we present our findings? - What are we asking? - Who are we interviewing? - Sampling targets - Timeline	REACH in-person + Quiz
Data collection process and overview	- How will we collect data this year? - Structure of the MSNA - Data Collection - Your commitment to REACH	REACH in-person + Quiz
GPS and Communications	- Introduction to the GPS component - How to use Google Earth - How to use My Maps - Communication organization - Team Leaders Responsibilities - Sharing and opening KML files - Reporting	REACH in-person + Quiz
Data collection process and overview	- Workplan – GPS points sharing - Data collection – what happens in one day? - Data collection rules - Daily targets	REACH in-person + Quiz

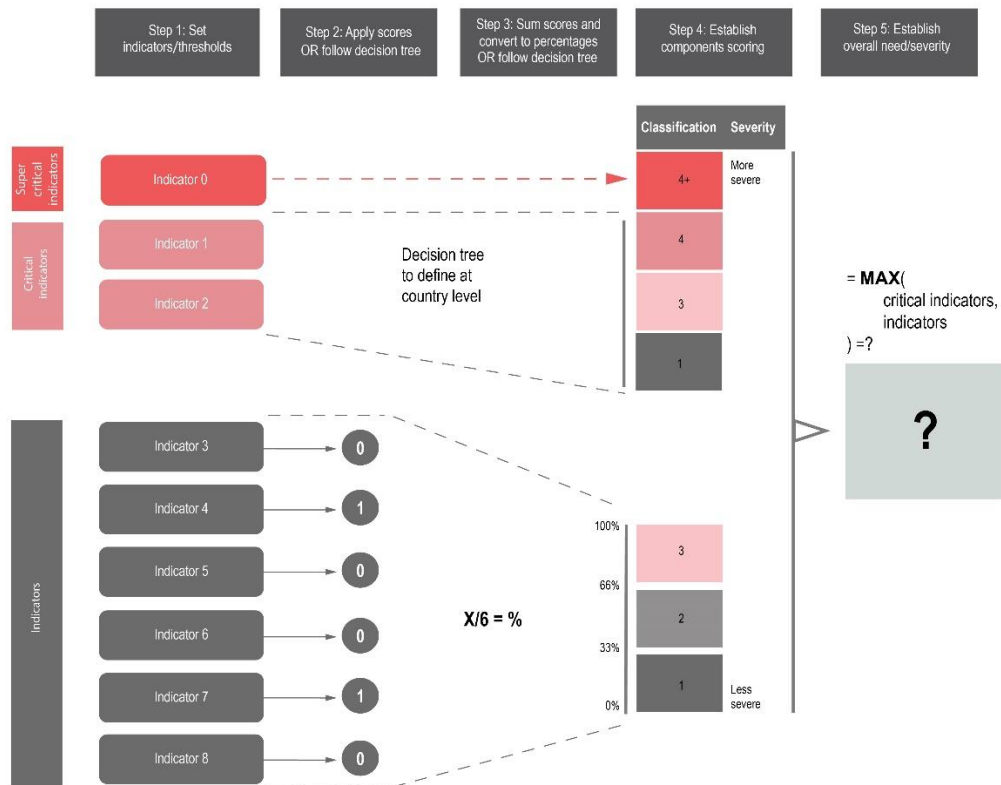
How to use KoBo	• Why do we collect data with KoBo? • Download KoBo Collect • Setup • Start the survey • How to insert information into KoBo • Select one answer option • Select multiple answer options • Insert integers into KoBo • Submit a survey • Save a survey • Submit a saved survey	REACH in-person + Quiz
In-depth look at the 2022 survey	• Introduction to the questionnaire • Sensitive questions • Sensitive questions - demographic information • Sensitive questions - displacement • Sensitive questions - livelihoods • Sensitive questions - SNFIs • Sensitive questions - WASH • Sensitive questions - Food security • Sensitive questions - Health • Sensitive questions - Protection	REACH in-person + Quiz

Annex 8: Identification of LSGs and CG

The LSG for a given sector is produced by aggregating unmet needs indicators per sector. For the 2021 MSNA, a simple aggregation methodology was used, building on the Multidimensional Poverty Index (MPI) aggregation approach. Using this method, each unit (household for example) is assigned a “deprivation” score according to its deprivations in the component indicators. The deprivation score of each household is obtained by calculating the percentage of the deprivations experienced, so that the deprivation score for each household lies between 0 and 100. The method relies on the categorisation of each indicator on a binary scale: does (“1”) / does not (“0”) have a gap. The threshold for how a household is considered to have a particular gap or not is determined in advance for each indicator. The 2022 MSNA aggregation methodology outlined below can be described as “MPI-like”, using the steps of the MPI approach to determine an aggregated needs severity score, with the addition of “critical indicators” that determine the higher severity scores. The section below outlines **guidance on how the LSGs and MSNI were produced**.

- 1) Identified indicators that measure needs (‘gaps’) for each sector, capturing the following key dimensions: accessibility, availability, quality, use, and awareness. Set binary thresholds: does (“1”) / does not (“0”) have a gap;
- 2) Identified critical indicators that, on their own, indicate a gap in the sector overall;
- 3) Identified individual indicator scores (0 or 1) for each household, once data had been collected;
- 4) Calculated the severity score for each household, based on the following decision tree (tailored to each sector);
 - a. Critical indicators: Using a decision tree approach, a severity class is identified based on a discontinued scale of 1 to 4 (1, 3, 4) depending on the scores of each of the critical indicators;
 - b. Non-critical indicators: the scores of all non-critical indicators are summed up and converted into a percentage of possible total (e.g. 3 out of 4 = 75%) to identify a severity class;
 - c. The final score/severity class is obtained by retaining the highest score generated by either the super critical, critical or non-critical indicators, as outlined in the figure 1 below;
- 5) Calculated the proportion of the population with a final severity score of 3 and above, per sector. Having a severity score of 3 and above in a sector is considered as having an LSG in that sector;
- 6) Identified households that do not have an LSG but that do have a CG;
 - a. Identified individual indicators scores (0 or 1) for all CG indicators, amongst households with a severity score of 1 or 2;
 - b. If any CG indicator has a score of 1, the household is categorised as having a CG;
- 7) Projected the percentage findings onto the population data that was used to build the sample, with accurate weighting to ensure best possible representativeness.

Figure 1: Identifying LSG per sector with scoring approach – example



Annex 9: LSG, and CG indicators

Food security

Critical indicators:

Critical indicator	Question	LSG Severity			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
Food Consumption Score (FCS)	Now, I would like to ask you a few questions about the meals your household had in the last 7 days. This information will help us understand the range of foods eaten in Libya, and if there is anything important missing. I will list 9 food groups, can you tell me for each, on how many days did your household eat these? In the last 7 days, on how many days did your household eat ...				
Reduced Coping Strategies index (rCSI)	Now, I would like to ask you a few questions about actions you may have taken in the last 7 days to deal with a lack of food or money to buy food. For each strategy, could you tell me how many days your household had to do it? Please note that these questions can be sensitive, and if you would prefer not to answer at any point, let us know and we will move on. During the last 7 days, were there days (and, if so, how many) when your household had to employ one of the following strategies to cope with a lack of food or money to buy it?	Acceptable FCS AND Low rCSI	Acceptable or borderline FCS + medium rCSI OR poor FCS + low rCSI	Acceptable or borderline FCS AND High rCSI OR Poor FCS AND medium rCSI	Poor FCS + High rCSI
Household Hunger Scale (HHS)	1. In the past 30 days, was there ever no food to eat of any kind in your house because of lack of resources to get food? How often did this happen in the past 30 days? 2. In the past 30 days, did you or any household member go to sleep at night hungry because there was not enough food? How often did this happen in the past 30 days? 3. In the past 30 days, did you or any household member go a whole day and night without eating anything at all because there was not enough food? How often did this happen in the past 30 days?	0-1	2_3	4	5-6

Food Consumption Score methodology

The calculation of the Food Consumption Score (FCS) was conducted in line with global standards. The FCS is a "composite score based on dietary diversity, food frequency, and relative nutritional importance of different food groups."³ The FCS captures households' food access and adequacy.⁴

Step 1: Calculation of numeric FCS			
Food groups	Weight	Frequency	Weighted score = weight * frequency
Cereals, grains, and tubers	2	[household answer]	2 * [household answer]
Legumes and nuts	3	[household answer]	3 * [household answer]
Milk and dairy products	4	[household answer]	4 * [household answer]
Eggs, meat, fish	4	[household answer]	4 * [household answer]
Vegetables and leaves	1	[household answer]	1 * [household answer]
Fruits	1	[household answer]	1 * [household answer]
Oil and fat	0.5	[household answer]	0.5 * [household answer]
Sugar and sweets	0.5	[household answer]	0.5 * [household answer]
Total (sum)			Total (sum) weighted scores

Step 2: Classification of FCS severity			
	Acceptable	Borderline	Poor
Household's total weighted score	>42	>28 and <=42	<=28

Reduced Coping Strategies Index (rCSI) methodology:

The calculation of the rCSI was also conducted in line with global standards.⁵ The rCSI captures the quantity or sufficiency of a household's food by asking about a selection of common, less-severe food-related coping strategies.

Step 1: Calculation of numeric rCSI score			
Food groups	Weight	Frequency	Weighted score = weight * frequency

³ WFP, "Food Consumption Analysis," 1st edition, February 2008, p. 5. Available at:

https://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf

⁴ WFP, "Consolidated Approach to Reporting Indicators of Food Security (CARI)," 2nd edition, November 2015, p. 17.

⁵ WFP, "The Coping Strategies Index: Field Methods Manual," 2nd edition, January 2008, p. 17. Available [here](#).

Rely on less preferred, less expensive food	1	[household answer]	1 * [household answer]
Borrow food or rely on help from friends or relatives	2	[household answer]	2 * [household answer]
Reduce the number of meals eaten per day	1	[household answer]	1 * [household answer]
Reduce the size of portions or meals	1	[household answer]	1 * [household answer]
Reduce the quantity consumed by adults so that children can eat	3	[household answer]	3 * [household answer]
Total household score			Total (sum) of weighted scores

Step 2: Classification of rCSI severity			
	Low	Medium	High
Household's total weighted score	<=18	>18 and <=42	>42

Food expenditure share methodology:

The food expenditure share is calculated as follows:

$$\frac{\text{Food expenditures} + \text{value of non purchased food}}{\text{Total expenditures}} \times 100$$

Household hunger scale methodology :

The calculation of the Household Hunger Scale (HHS) was conducted in line with global standards. The HHS intends to focus on the food quantity dimension of food and not the nutritional quality of the accessed food.⁶

Step 1: Calculation of numeric score for each category in function of frequency			
Frequency	Weight	Frequency	Weighted score = weight * frequency
If yes and Rarely (1-2 times)	1	[household answer]	1 * [household answer]
If yes and Sometimes (3-10 times)	1	[household answer]	1 * [household answer]

⁶ FANTA, "Household Hunger Scale: Indicator Definition and Measurement Guide," August 2011. Available [here](#).

If yes and Often (more than 10 times)	2	[household answer]	2 * [household answer]		
If no (did not answer yes to any of the HHS modules)	0	[household answer]	0 * [household answer]		
Step 2: Calculation of numeric score for each category in function of frequency					
Total household score			Total (sum) of weighted scores of each frequency reported		
Step 3: Classification of HHS severity for the migrants and refugees 2022 MSNA					
	None	Slight	Moderate	Severe	Extreme
Household's total weighted score	0	1	2-3	4	5-6

Please note that, although the calculations are aligned with the global standards, the categorisation used in the 2022 Libyan population MSNA and outlined in the table above (None, Slight, Moderate, Severe and Extreme) are more elaborate than the categorisation used by the original methodology (Little to no hunger (0-1), moderate hunger (2-3) and severe hunger (4-6)).⁷ This was done to allow for more specific categorisation of especially the highest scores (5-6) into an extreme category that would signal an extreme level of food insecurity and to inform a more detailed analysis and interpretation without modifying the HHs framework. This was also done to differentiate between households answering no to all of the categories, thus having a score of zero, versus if the household reported just one category with the lowest frequency possible, meaning having a score of 1.

Non-critical indicators:

Non-critical indicators	Questions	Classification	
		No need	Need
		0	1
Food expenditure share ((expenditure on food + value of non-purchased food)/total expenditure)	During the past 30 days, could you estimate the market value (in LYD) of food items your household produced and kept for own consumption?	Food items represent less than 65% of total monthly expenditure	Food items represent 65% or more of total monthly expenditure
	During the past 30 days, how much did you spend, in LYD, on each of the following categories of items for domestic consumption?/Food		
% of HHs that are able to access a marketplace or grocery store within 30 minutes of travel	Does your household have access to a marketplace or grocery store within 30 minutes travel time in your mahalla or close to your mahalla?	yes	no

⁷ FANTA, "Household Hunger Scale: Indicator Definition and Measurement Guide," August 2011. Available [here](#).

Non-critical indicators: LSG severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<=1	2	>2

Protection

Critical indicators:

Questions	Severity rating			
	None/Minimal	Stress	Severe	Extreme
	1	2	3	4
Do all households members currently have a valid national ID card? This means you have it and it is valid.	Yes, in our possession	Yes, we all have IDs but they are not in our possession (e.g. left behind somewhere) No, but we are in the process of obtaining them	No, some household members are missing documentation	
Does your HH have any child, son or daughter (<18 years) not currently living in the HH?	No children outside household OR left to study OR living with extended family		Child left the house to get married; seek employment	Engage with armed groups; kidnapped; missing arbitrarily detained
What is the reason for why your children/child are/is not living in the household?				

Non-critical indicators:

Questions	Classification	
	No need	Need
	0	1
Are you aware of the presence of any explosive hazards in your area, that happened in the last 6 months?	No	Yes
What are the main safety and security concerns for men in your family, if any? We are trying to find out any reasons why you might feel in danger in your area.	None Verbal or psychological harassment Cyber Harassment Discrimination (in	Armed clashes or presence of armed actors Explosive hazards Communal violence Robberies, theft Arrest or detention Kidnappings

What are the main safety and security concerns for women in your family, if any? We are trying to find out any reasons why you might feel in danger in your area.	access to essential services and opportunities because of reasons such as ethnicity, gender, disability, etc.)	Physical violence (not sexual and not conflict-related), including killings, or threat thereof Domestic violence (violent or aggressive behavior within the home, violent abuse of a spouse, partner or family member) or forced marriage Sexual harassment or violence Trafficking in persons and/or exploitation (being engaged in harmful forms of labor for economic gain of the exploiter, including sexual exploitation) Association with armed groups Substance abuse Risk of eviction For IDP households: forced return Cyber Harassment Blackmailing
What do you think are the main safety and security risks for boy children in your muhalla, if any?	None Verbal or psychological harassment Discrimination (in access to essential services and opportunities because of reasons such as ethnicity, gender, disability, etc.)	Armed clashes or presence of armed actors Explosive hazards Communal violence Robberies, theft Arrest or detention Kidnappings Physical violence (not sexual and not conflict-related), including killings, or threat thereof Domestic violence (violent or aggressive behavior within the home, violent abuse of a spouse, partner or family member) or forced marriage Sexual harassment or violence Trafficking in persons and/or exploitation (being engaged in harmful forms of labor for economic gain of the exploiter, including sexual exploitation) Association with armed groups Substance abuse Being separated from parents, relatives or legal guardians Substance abuse Traffic accidents
What do you think are the main safety and security concerns for girls in your muhalla, if any?		

In the last 3 months, have any members of your household faced obstacles when moving within your baladiya or outside it to another baladiya? We are trying to understand if anything makes it difficult for you to move, including security issues, COVID-related restrictions, lack of means of transportation, or socio-cultural barriers faced by certain groups (e.g. women). If yes, what were the main barriers that members of your household faced when moving within your baladiya or outside it to another baladiya?	No restrictions or COVID-19 restrictions	Fear of conflict related insecurity/violence Fear of non-conflict related insecurity/violence, including targeted persecution Presence of checkpoint/roadblocks Lack of documentation Fear of arrest/detention Fear of explosive hazards Lack of means of transportation / Cannot afford transportation Restrictions based on gender (i.e. inability to move without a male person accompanying/authorizing for female household members, fear of sexual harassment or violence, etc.)
Are there any locations in your area that women and girls avoid because they feel unsafe? If yes, what locations (or places) do women and girls in your community avoid or feel unsafe about?	There are no areas that women/girls avoid because they feel unsafe	Markets Hospitals Schools Water points Social/community areas Open spaces (streets, squares, etc.) Public transportation Police stations or other public offices Distribution points for humanitarian assistance

Non-critical indicators: LSG severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<=1	2	>2

Health

Critical indicators:

Indicator	Question	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households with members having a health care need	During the last 3 months, did anyone in your household have a health problem and needed to access health care (including mental health services)?	No	Yes AND 0 members having an unmet healthcare need	Yes AND >0 members having an unmet healthcare need	
% of households with members having an unmet health care need in previous 3 months	Please tell me how many people in your household in the last 3 months were NOT able to obtain health care when they felt they needed it?				

Non-critical indicators:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of households that reported having faced challenges in the previous 3 months when accessing health care	Has your household experienced any barriers or problems when accessing health care in the last 3 months, and if so, what are these? (Choose up to 3 most important) Barriers to accessing health care should focus on formal health care such as health facilities, hospitals, pharmacies, NOT traditional practitioners.	No problems	At least one problem
% of households with access to public and private health care	If you or someone in your household needed healthcare, what kind of health facilities would you have access to in your baladiya? E.g., Where would you go if you had a health problem?	Access to public hospital, private clinic, ngo_clinic mental_hc private_practitioner, pharmacies	Any other answer option (traditional healer, none of the above)

% of households that can access primary health care within one hour using their normal mode of transportation	How long (in minutes) does it take anyone from your household to get to the nearest, functional health facility by your normal mode of transportation?	Less than 1h	More than 1h
% of households with children under-5 years of age with a vaccination card	How many children in your household have a National Child Immunization Record, immunization records from a private health provider, or any other document where vaccinations are written down?	All children have a record	At least one child does not have a record

Non-critical indicators: LSG severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<=1	2	>2

WASH

Critical indicators:

Indicator	Question	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households having access to a functional and improved sanitation facility	What kind of sanitation facility (latrine/toilet) do you usually use? (Note to enumerator: do not read list)	Access to improved sanitation facilities (Flush toilet; pit latrine with slab; pit VIP toilet), shared with <4 households	Access to improved sanitation facilities, (Flush toilet; pit latrine with slab; pit VIP toilet), shared with >4 households but <10 households	Access to unimproved facility (Pit latrine without slab; hanging toilet; bucket toilet) OR Access to improved sanitation facilities, shared with more than 10 households	Disposal of human feces in open spaces or with solid waste

% of households by type of primary source of drinking water	What is the main source of water used by your household for drinking?	Public network (connected to the shelter) OR (Public network (connected to the neighbour's shelter) Bottled water Sachet water Tanker-truck Public tap/standpipe Water kiosk Protected well (e.g. in your house or in the mosque) Protected spring Protected well (e.g. in your house or in the mosque) Cart with small tank / drum Protected spring) AND duration_to_get_water < 30min away	Public network (connected to the neighbour's shelter) Bottled water Sachet water Tanker-truck Public tap/standpipe Water kiosk Protected well (e.g. in your house or in the mosque) Protected spring Protected well (e.g. in your house or in the mosque) Cart with small tank / drum Protected spring) AND duration_to_get_water > 30 min away	Unprotected well Borehole or tubewell Unprotected spring	Surface water (river, dam, lake, pond, stream, canal, irrigation channel)
% of households reporting not having enough water for drinking, cooking, bathing and washing	In the past 30 days, were there ever any times that you did not have enough water to meet any of the following needs?	None of these - we always had enough water	Other domestic purposes (cleaning house, floor, etc.)	Cooking AND Personal hygiene (washing or bathing)	Drinking

Non-critical indicators:

Indicator	Questions	Classification	
		No need	Need
		0	1
% of households reportedly with access to functioning handwashing facilities with water and soap available	Does your household have a handwashing facility equipped with water and soap?	yes	no

% of households having problems related to sanitation facilities access - by type of problem	If the sanitation facilities your household commonly uses have any problems; what are they? (We are referring here the material conditions of the facility.)	Sanitation facilities have no problems	Sanitation facilities are in bad condition or not working No connection to sewage Pipes are blocked / connection to sewage is blocked We share sanitation facilities with more than 5 people (other than household members) Sanitation facilities are used by both women and men from different households Sanitation facilities do not have a door or a screen Door of sanitation facilities cannot be locked from inside There is no light inside/around sanitation facilities Household members do not feel safe when using sanitation facilities We don't have any sanitation facilities in our accommodation (e.g. we use neighbors' toilets or shared facilities)
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Non-critical indicators: LSG severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<=1	2	>2

Shelter & NFI

Critical indicators:

Critical indicators	Questions	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households without any shelter or living in inadequate shelter (type of shelter, enclosure)	What type of shelter does the household live in?	House Apartment (not shared), Hotel AND No damage / negligible damage	Private room in an apartment/house shared with other people (not household members), Room shared with other people (not household)	Public building not usually used for shelter (e.g. school, mosque, etc.) Private building not usually used for shelter (e.g. basement, garage, store, warehouse,	Unfinished/un enclosed building AND Medium og heavy damage

issues, damage, defects)	Does this accommodation your household is currently living in have any damage?		members) AND Light damage OR Unfinished/unenc losed building AND No damage / negligible damage	etc.), Camp or informal settlement AND Medium or heavy damage OR Unfinished/unencl osed building AND Light damage	
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Non-critical indicators:

Indicator	Questions	Classification	
		No need	Need
		0	1
% of households with sufficient core NFI	I will read a list of household items. Please tell me which of these items your household doesn't have and needs urgently.	Not missing items outlined under need	missing at least 75% from winter items or at least 66% from kitchen and home items or missing 100% from summer items*
% of households living in a functional domestic space	What issues, if any, do members of your household face in terms of living conditions inside your shelter?	None of the above	At least one member of the household has to sleep outside or on the floor (insufficient space, insufficient sleeping mats/mattress) Unable to cook and/or store food properly (cooking facilities are unsafe, insufficient cooking items) Unable to store water properly (insufficient water containers) Unable to adequately perform personal hygiene (lack of bathing facilities, bathing facilities unsafe, insufficient hygiene kits) Does not feel protected in the shelter (unable to lock home securely, insufficient light inside or outside, overall sentiment) Insufficient privacy (no partitions, doors) Unable to keep warm or cool (no or dysfunctional temperature regulating devices, insufficient winter clothes)
% of respondents by occupancy status	What is the occupancy arrangement in your current dwelling? (for example, do you own the house, or someone else is paying for it?)	Ownership Co-ownership Rental (with written contract) Rental (with verbal agreement) Housing provided by public authority Housing paid by employer (in a house or apartment, not	Living at workplace Being hosted for free (not including by employer) Squatting (without consent of owner)

		at the workplace)	
% of households threatened with eviction from current shelter, by reason	Have you experienced eviction or the threat of eviction within the past 6 months?	No, but I am afraid it might happen soon No, but I know someone in this area who has been evicted No	Yes, have been threatened with eviction verbally Yes, have been threatened with eviction in written form Yes, have been evicted

*In line with Libya SNFI sector 2021 HNO PiN categories

Non-critical indicators: LSG severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<=1	2	>2

Education

Critical indicators:

Critical indicators	Questions	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households with children not enrolled and/or not attending	For the 2021-2022 school year, how many school-aged children in the household were enrolled (registered) in formal school? NOTE: this does not mean going physically to school (as schools might have been partially closed), but that the child was registered/affiliated/'signed-up' with a school. NOTE: This includes enrolment in either full-time public schools or recognized private schools.	All children enrolled in formal school or household has no school aged children		At least one child not enrolled in formal school	

% of households with children having dropped out of school in the previous year	[If number of children enrolled < number of school-aged children in the household] How many school-aged children in the household dropped out of school in the previous year? Enter 0 if none. Dropped out = child was enrolled in a given grade at a given school in the 2020-2021 school year but is not enrolled in the current/2021-2022 school year.	No children having dropped out of school in the previous year		At least one child having dropped out of school in the previous year	At least one child having dropped out of school in the previous year AND Reasons for dropping out: Going or attending school is not safe for the child (violence, harassment or discrimination); Parents/caregivers not able to register or enroll children in the school due to lack of valid documentation; Child marriage or pregnancy; Parental refusal to send children to school Child has to work (contributes to household income))
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Livelihood Coping Strategies Index (LCSI) The CG score is based entirely on the Livelihood Coping Strategies Index (LCSI). This single indicator is treated as a critical indicator, meaning that the highest severity reached by the household is the household severity score. See indicator matrix below.

Critical indicator	Question	LSG Severity			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households who resorted using one or more livelihood coping strategies, by type of strategy (LCSI)	Now I would like to ask you some questions about how you have dealt with situations where you did not have enough resources to cover your basic needs. Could you tell me for each of the following actions whether you had to undertake them in the last 30 days because of a lack of resources? If you already used up a certain action before the last 30 days, or if a strategy is not applicable to you, please say so. In the last 30 days, did your household do the following due to a lack of resources to cover basic needs (such as food, shelter, health, education, etc.)?	None	Stress	Crisis	Emergency

Livelihoods Coping Strategies Index methodology

The LCSI methodology used was in line with global standards. The severity classification of included strategies was determined based on bilateral discussions with key actors in Libya.

Guidelines for determining LCSI score:

1. The respondent is questioned about a series of coping strategies, and whether they have used any of these coping strategies in the 30 days prior to data collection. For each coping strategy, the respondent may choose from the following options: (A) Yes; (B) No, have already exhausted this coping strategy and cannot use it again; (C) No, had no need to use this coping strategy; and (D) Not applicable/This coping strategy is not available to me.
2. If the respondent chooses either "Yes" or "No, have already exhausted this coping strategy and cannot use it again" for at least one coping strategy in a severity category, then the respondent is considered to have used coping strategies from that severity category.
3. The respondent is classified according to the most severe category from which they used coping strategies.

LCSI severity rating			
None/Minimal	Stress	Crisis	Emergency
N/A	Sold non-productive household assets or goods (TV, household appliance, furniture, gold, etc.)	Sold productive household assets or means of transport (sewing machine, wheelbarrow, car, etc.)	HH members over 18 engaged in degrading or illegal income activities (e.g. theft, smuggling)

	Spent savings	Reduced expenses on health (including drugs)	Children (below 18) had to engage in income generating activities
	Borrowed money	Took on an additional job	Sold house or land
	Reduced expenditures on essential non-food items (water, hygiene items, etc.)		

Annex 10: Estimating overall severity of needs

The MSNI is a measure of the household's overall severity of humanitarian needs (expressed on a scale of 1 – 4+), based on the highest severity of sectoral LSG severity scores identified in each household.

The MSNI is determined through the following steps:

- 1) First, the severity of each sectoral LSGs is calculated per household, as outlined in Annex 1.
- 2) Next, a final severity score (MSNI) is determined for each household based on the highest severity of sectoral LSGs identified in each household.

- As shown in the example in Figure 2 below, household (HH) 1 has a final MSNI of 4 because that is the highest severity score, across all LSGs within that household.

Figure 2: Examples of MSNI scores per household based on sectoral analysis findings

	Sectoral LSG Severity Score						Final MSNI
	Food Sec	Health	WASH	Protection	Education	Etc.	
HH 1	4	4	4	4	3	3	4
HH 2	2	2	4	2	1	1	4
HH 3	3	3	3	4+	2	1	4+
Etc.	2	3	1	1	2	1	3

Key limitation: regardless of whether a household has a very severe LSG in just one sector (e.g. WASH for HH 2 above) OR co-occurring severe LSGs across multiple sectors (e.g. food security, health, WASH, protection for HH1 above), their final MSNI score will be the same (4). While this might make sense from a “big picture” response planning perspective (if a household has an extreme need in even one sector, this may warrant humanitarian intervention regardless of the co-occurrence with other sectoral needs), additional analysis should be done to understand such differences in magnitude of severity between households.