2021 Libyan Population MSNA Methodology Overview

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. This year's Libyan Population MSNA has intended to provide an overall understanding of households' vulnerabilities, their most pressing needs and the severity of these needs, both within each sector and from a cross-sectoral perspective. 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. And how do levels of pre-existing vulnerability differ based on:
        i. Assessed baladiya[1];
        ii. Population group (i.e. IDPs, returnees and non-displaced)?

- Humanitarian conditions (living standards and well-being):
    a. What is the level of living standard gaps 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. And 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)?
        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]

[1] A baladiya – corresponding to a 'municipality' – is the third level of geographic classification in Libya after region and mantika and represents the principal level at which findings are communicated for the 2021 MSNA.
[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 draft 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, and 4. Extreme. Different severities of humanitarian needs help actors understand the different objectives to be employed by the humanitarian response.

c. And how does the severity of humanitarian needs differ by:
    i. Assessed baladiya?
    ii. Population group (i.e. from different regions of origin and by gender)?
    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. from different regions of origin and by gender)?
        iii. Pre-existing vulnerability profile?

    c. What are households' self-identified needs and preferences around the provision of humanitarian aid?
    d. 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?

Scope

The 2021 MSNA covered 8,871 households across 45 baladiyas (see coverage map below). The locations were prioritized in close cooperation with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), the HCT, the ISCG, and the AWG. Prioritisation was based on several criteria, namely the 2021 Humanitarian Needs Overview (HNO) severity calculations, the percentage of households with two or more sectoral needs according to the 2020 MSNA, the size of the IDP and returnee populations, the size of the migrant and refugee populations, and the frequency of safety incidences according to data from the Armed Conflict Location & Event Data Project (ACLED).

This MSNA targeted three population groups: IDPs, returnees and non-displaced.[3] These groups are defined as follows:

- Internally displaced person (IDP): An IDP is any "persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.'"[4]
- Returnee: "A returnee is any person who was displaced internally or across an international border but has since returned to his/her place of habitual residence."[5]

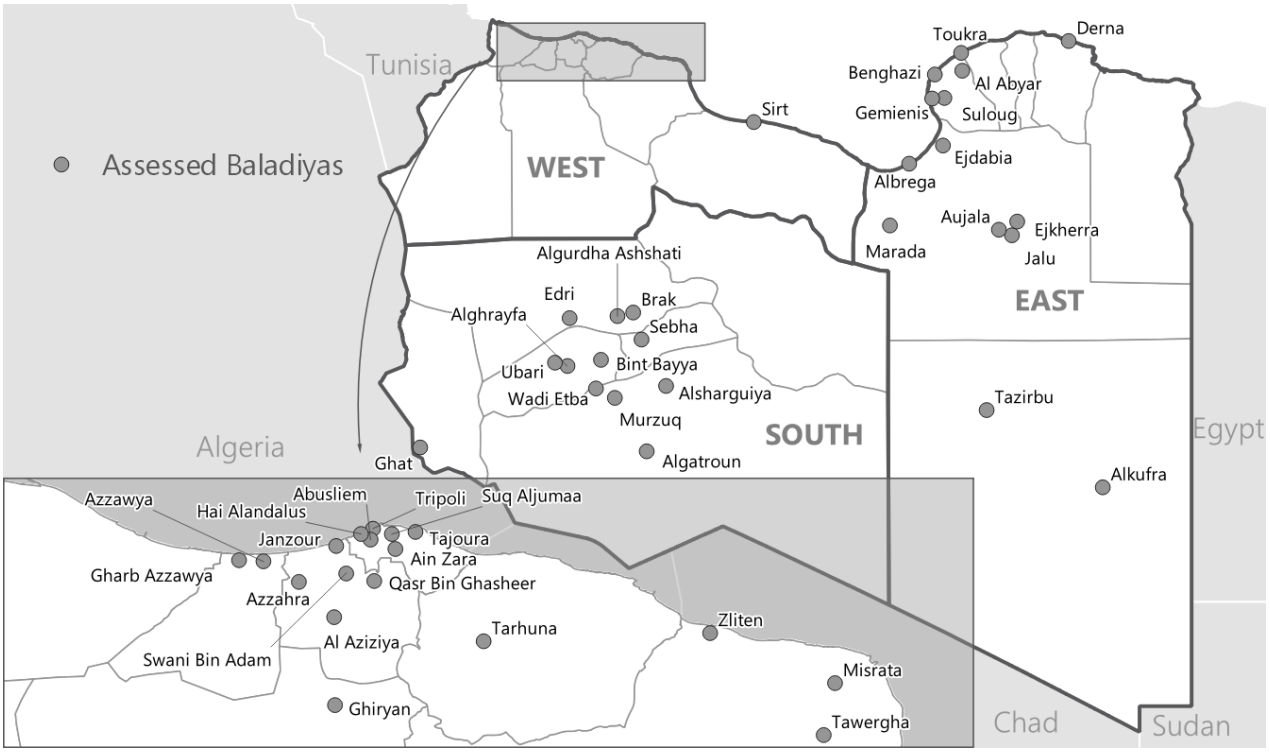
For both IDPs and returnees, this MSNA will look specifically at displacement from baladiya or muhalla of origin since 2011. Finally, for the purposes of this MSNA, the non-displaced population is defined as:

[3] The refugee and migrant populations were captured in a separate MSNA due to the unique distribution and needs of these groups. Their size was taking into consideration during the selection process in order to maintain some consistency in coverage between the two MSNAs. The ToR and outputs for the Refugees and Migrants MSNA can be found here.
[4] IOM, DTM Libya – Mobility Tracking: Methodology, Version 11 (IOM, 2017). Available here [accessed 12 April 2021].
[5] Ibid.

- Non-displaced: A non-displaced person is someone who is a citizen or long-term resident of the country of focus, for whom the country of focus is their primary residence, and who does not fit the above definitions of IDPs and returnees.

The assessment covered 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).

Map 1: Assessment coverage



Sampling strategy

Sampling was primarily purposive with quotas for each population group in each baladiya, as a result of which, findings are not generalisable with a known level of precision and should be considered indicative only.

In 2021, convenience sampling though partner networks was supplemented with Random Digit Dialing (RDD) in order to diversify phone numbers and reduce some of the bias associated with relying exclusively on partners. RDD refers to a method of sampling where phone numbers are randomly generated and dialed to get a random sample of the population who have working phones. RDD could only be used to a limited extent as the MSNA did not cover the entire country. This meant that a significant proportion of reached households could not be surveyed, as they would have fallen outside of the scope, increasing both the time required and the costs per survey through RDD. As a result, 1010 surveys were collected using this method. This number was established in conversation with the RDD company based on what could feasibly be achieved within the given timeframe and scope for the MSNA. The RDD company was responsible for the collection of these surveys, see Annex 3 for more details.[6]

Additionally, the 2021 MSNA sampled at baladiya-level, in contrast to the previous year, where sampling was done at mantika-level, covering the entire country. Mantika-level sampling posed some challenges

[6] The name of the company contracted for the data collection is Diwan. To learn more about the company, see their website here.

for the HNO, as People in Need (PiN) numbers were calculated at baladiya-level. However, the MSNA was not able to move to sampling at this lower administrative level without sacrificing coverage due to the limited resources available. In 2021, the Libya HCT decided to limit the number of baladiyas covered by the HNO to 65 baladiyas and requested REACH to aim to cover those baladiyas at baladiya-level, 45 of which where covered in the 2021 MSNA

The sample size per strata was calculated as in previous MSNAs, which had a 95% confidence interval, 10% margin of error and 10% buffer. The buffer was dropped for most locations towards the end of data collection to meet all base targets. While this level of precision was not maintained due to the aforementioned inability to randomise data collection, sample sizes were kept the same to ensure some level of consistency in sampling with previous years. The sampling frame is based on population data from the 2020 United Nations Population Fund (UNFPA) population projections,[7] while specific displacement figures were drawn from population figures presented in Round 35 of International Organization for Migration Displacement Tracking Matrix (IOM-DTM) (January-February 2021).[8] The 2020 UNFPA data and the IOM-DTM data were merged to create the overall population dataset used for sampling and weighting in line with the approach adopted by OCHA for the HNO PiN calculations. This meant substracting the IDP numbers from the UNFPA data based on baladiya of origin, in order to come to the non-displaced population values.

Data collection

Quantitative data collection took place between 14 June and 2 August 2021, with 8,871 households interviews conducted overall. The tool used for data collection was a 30-minute structured household survey. Due to COVID-19 and safety considerations, interviews were conducted remotely, by means of the Computer Assisted Telephone Interviewing (CATI) method. The CATI method is a phone survey research methodology whereby the enumerator administers a survey to the respondent during a phone call while reading the questionnaire on their mobile phone. As phone numbers were largely purposively sampled through our partners based on quotas for the different population groups (i.e. convenience sampling), the findings are **indicative only.** Phone calls were conducted by REACH enumerators, data collection partners, and by enumerators employed by the RDD company. Data collection partners include Libyan civil society organisations (CSOs) and international non-governmental organisations (INGOs) that have offered voluntary support in order to expand the scope of the MSNA.

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.

Before 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 in order to ensure that enumerators abide 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. Enumerators associated with volunteer organisations or the RDD company

[7] International Organization for Migration – Displacement Tracking Matrix (IOM-DTM) IDP & Returnee Report, Round 35 (January-February 2021) (IOM, 2021a). Available here (accessed 6 May 2021) (accompanying dataset contains IDP and returnee population figures)
[8] United Nations Population Fund (UNFPA) 2020 population data (Available here) (contains total population figures, adjusted with data from IOM-DTM and used to calculate non-displaced population figures. Data published in 2020)

received the same training as the other enumerators. For more details on the training, please see Annex 7.

Qualitative data collection is expected to take place in October-November 2021. Findings and notes on the methodology will be included in the report.

Analysis

The REACH MSNA analysis method 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 determine the proportion of households per stratum (location or region of origin) that have **sectoral and/or thematic needs**, and identify socio-demographic factors that influence **access to resources** and **vulnerability.** 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.
- **Capacity Gap (CG):** 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.
- **Pre-existing vulnerabilities (PEV):** the underlying processes or conditions that influence the degree of the shock and influence exposure, vulnerability or capacity, which would subsequently exacerbate the impact of a crisis on those affected by the vulnerabilities.
- **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 [4/4+]), 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 aiming 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 this MSNA, only a scale of 1 (none/minimal) to 4 (extreme) is used. A "4+" score is used where data indicates that the situation could be catastrophic, but is not used within this MSNA. This is because data that is needed for a score of (catastrophic) is primarily at area level (e.g. mortality rates, malnutrition prevalence, burden of disease), which is difficult to factor into household or individual level analysis.[9]

Based on the severity scale, LSG scores (per sector) were then produced by aggregating unmet needs indicators per sector. For the 2021 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

[9] Additionally, as global guidelines on the exact definitions of each class are yet to be finalized, and given the response implications of classifying a household or area as class 5 (catastrophic), REACH is not in a position to independently verify if a class 5 is occurring.

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- 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 LGSs, and the most common needs profiles (combinations of LSGs).

Box 1: Previous MSNAs & why findings cannot be compared

The 2020 MSNA drew on similar analytical concepts and followed a similar analytical approach. However, the sampling strategy has changed quite drastically for the 2021 MSNA. Due to the decisions made by OCHA and the HCT, sampling has shifted from mantika-level to baladiya-level. As a consequence, comparability with 2020 findings is limited and can only be considered as indicative of broader trends.

Secondary data

In 2021, a secondary data review (SDR) was conducted, building on the SDR conducted for the 2020 MSNA. The main sources identified through the SDR encompassed:

- **New and updated population data used to create the sampling frame:** IOM-DTM Round 35 data for January-February 2021 (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 finalized 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 2021 Humanitarian Needs Overview for Libya; REACH reports on Libya from the last 12 months, including the 2020 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.
- **Additional guidance documents and academic papers on remote research:** In 2020, the sudden onset of COVID-19 in Libya necessitated rapid adaptation of research methods to remote data collection. In 2021, more in-depth research has been conducted on remote research methods and various ways to strengthen the validity and effectiveness of remote data collection in Libya. This

research included NGO guidance documentation as well as academic publications related to for example RDD and multiple frame sampling.

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, mantika level figures on mortality, morbidity or malnutrition rates are available. The 2021 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 Area-Based Assessments (ABAs).

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). All phone numbers recorded were automatically encrypted after having been downloaded. Any other personally identifiable information was deleted before publication of the dataset. Second, enumerator training included modules on survey ethics, including strict protocols on the treatment and deletion of phone numbers given to enumerators (see annex 7 for further information on the training). Third, all data collection components required informed consent from the respondent. A script was presented to all respondents outlining the nature and purpose of the assessment, and emphasizing the voluntary basis of participation. Fourth, all respondents were provided with the Complaints and Feedback Mechanism (CFM) phone number managed by the Electronic Telecommunication sector (ETS). Finally, a monitoring and evaluation (M&E) survey was conducted during quantitative data collection, via random calls to selected interviewee households that had consented to be contacted again.

Challenges and limitations

- **Remote data collection:** Due to COVID-19 contingency measures, data collection for the 2021 MSNA was conducted over the phone. This created some particular challenges and limitations:

  a. Given the poor connectivity and the lack of personal interaction during a phone-based interview, the length of the questionnaire was limited to prevent losing the respondent's attention. This meant that the survey could cover fewer topics than in previous years; qualitative data collection will endeavour to cover these gaps in more detail**;**
  b. The ability to conduct surveys was dependent on mobile ownership and mobile network connectivity. As certain population groups and locations may be less well-connected, data collection by phone could lead to their underrepresentation in the data.
  c. As privacy could not be ensured, sensitive topics were not included in the assessment to avoid creating risks for respondents;

- **Purposive sampling:** Households were selected through referrals and contact lists provided by humanitarian organisations and CSOs working in humanitarian aid and service delivery. As a result, it is possible that more vulnerable households were overrepresented this year, similarly to last year. This limitation was partially mitigated through the introduction of RDD, which allowed for a portion of respondents to be randomly selected. Furthermore, wherever possible, contact lists were diversified, outliers were monitored throughout data collection, and findings were triangulated with other humanitarian stakeholders during presentations of findings and related discussions.

- **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. As a result, the quantitative component will be followed up with qualitative data collection, to collect further information on the sectors and population groups flagged in the quantitative findings.

- **Limitations arising from interviewing the head of household:** The 2021 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. Additionally, as the head of household tends to be male, the sample consisted of only 25% female respondents. This gender bias will be mitigated through a further explanation of gender-based violence (GBV) in the qualitative component of the assessment.

- **Respondent bias:** Certain indicators, such as children living outside the household due to marriage or recruitment in armed groups, may be under-reported due to sensitivity and perceptions of respondents. For instance, respondents might have the tendency to provide what they perceive to be the "right" answers to certain questions (i.e. social desirability 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 2021 Libyan Population MSNA can be found on the REACH Resource Centre:

- Terms of Reference (ToR)
- Quantitative tool
- Dataset
- Results tables in English and Arabic
- Key findings presentation

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.

2. Context: Context, the first pillar of the analytical framework underlying this MSNA, consists of the relevant characteristics of the environment in which humanitarian actors plan and operate. These characteristics include, but are not limited to, characteristics and changes in the humanitarian, socio-cultural, economic, legal/policy, demographic, infrastructure and environmental profile.

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.

4. Event or shock: The event or shock, the second pillar of the analytical framework underlying this MSNA, is essentially a sudden or on-going event that severely disrupts the functioning of a community or society and causes human, material and economic or environmental losses. The draft JIAF seeks to identify key driver(s) or the immediate causes of the crisis, including type, location, intensity, inter alia, as well as underlying factors, defined here as the processes or conditions, often development-related, that influence the degree of the shock and influence exposure, vulnerability or capacity of the affected population.

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.

6. Humanitarian conditions: This is the fourth pillar of the analytical framework underlying this MSNA. Humanitarian conditions consist of the outcomes of the crisis on the affected population, in terms of living standards and coping mechanisms.

7. Impact: Impact is the third pillar of the analytical framework underlying this MSNA. It consists of the effects of the event/shock on the population and humanitarian access in the affected area.

8. Internally-displaced person (IDP): "An IDP is any 'persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.'"[10] For both IDPs and returnees, this MSNA looked specifically at displacement from baladiya of origin since 2011.

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

[10] IOM, "DTM Libya - Mobility Tracking 2017 Methodology Version 11," 2017.

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: For the purpose of this MSNA, a non-displaced person is a citizen or long-term resident of Libya, for whom Libya is their primary residence, and who does not fit the definitions of IDPs or returnees.

12. Pre-existing vulnerabilities (PEVs): PEVs are household-level conditions that may influence the household's ability to access services and fulfil basic needs across all sectors. PEVs are of interest because they may further aggravate humanitarian needs, and already-vulnerable households might find it more difficult to recover from shocks.

13. Returnee: "A returnee is any person who was displaced internally or across an international border but has since returned to his/her place of habitual residence."[11] For both IDPs and returnees, this MSNA looked specifically at displacement from baladiya of origin since 2011.

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

[11] Inter-Agency Standing Committee (IASC), "Human Population Figures," April 2016, p. 4.

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 35 (January-February 2021) dataset: IDP and returnee population figures were drawn from IOM's Displacement Tracking Matrix (DTM) Round 21 data on Libya. For the weighting post-data collection, Round 36 was used as it has been published since.

These population data sources were combined to calculate the number of non-displaced households in all baladiyas targetted 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. After data collection, an alternative population dataset was developed in cooperation with OCHA, using the UNFPA data alongside IOM-DTM Round 36. The calculation of the non-displaced population number was based on substracting the IDP population based on baladiya of origin from the total population number. In most cases, this had only limited impact on the population numbers and weighting.

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 10% buffer of extra surveys, though most of the buffer was dropped by the end of data collection. The sampling of respondents was not random this year, meaning that the sample cannot be taken as representative.

Annex 4 contains the final sampling frame and survey totals.

Sampling in practice

The 2021 MSNA household surveys were conducted entirely over the phone, due to the operational environment in light of COVID-19. Sampling relied on a mixture of referrals and contact lists from CSOs, municipalities, and INGOs. Referrals were used to the fullest extent possible, with contact lists meant to fill any gaps left by referrals in order to reach strata quotas. In addition to this purposive sampling, RDD was additionally piloted during the 2021 MSNA. This method was used to diversify phone numbers and reduce some of the bias associated with relying exclusively on partners.

RDD refers to a method of sampling where phone numbers are randomly generated and dialed to get a random sample of the population who have working phones. As the RDD sample is likely to reflect the actual population distribution due to the random nature of the method, it is hard to reach IDPs and returnees through this method, as these population groups make up only a small portion of the Libyan population.[12] RDD can also only be used to a limited extent because the MSNA did not cover the entire country. This means that a significant proportion of reached households cannot be surveyed, as they will fall outside of the scope, increasing both the time required and the costs per survey of RDD. Therefore, RDD was used to collect 1010 surveys only. Purposive sampling was done to compensate, and to capture IDPs and returnees especially. To perform the analysis, the data from the two sampling frames was merged. If it were to be possible to use RDD for the complete process of data collection, it would be

[12] According to the sampling frame for the 2021 MSNA, IDP households make up 5% of the population, and returnee households make up 8% of the overall population.

possible to have generalisable and representative data. However, due to the small contribution of RDD to the overall sample, the findings are still indicative only.

Towards the end of data collection, it was discovered that the majority of surveys submitted for Aljufra appeared to be fraudulent. As the quality was not trusted, and not enough time was available to re-collect, the baladiya was droppped from the sample.

Annex 4: Sampling Frame

Baladiya	Number of households*				Target number of surveys**				Total number of surveys collected			
	IDP	Retur-nee	Non-displaced	Total	IDP	Retur-nee	Non-displaced	Total	IDP	Retur-nee	Non-displaced	Total
Abusliem	1135	16103	35812	53050	89	96	96	281	45	105	88	238
Ain Zara	33	12147	10248	22428	25	96	96	217	49	101	103	253
Al Aziziya	60	6824	4174	11058	38	95	94	227	42	98	83	223
Alabyar	160	0	9610	9770	61	0	96	157	70	0	99	169
Albrayga	53	0	7101	7154	35	0	95	130	25	0	96	121
Algatroun	585	105	2047	2737	83	51	92	226	63	45	71	179
Alghrayfa	208	0	6962	7170	66	0	95	161	92	0	106	198
Algurdha Ashshati	103	0	5755	5858	50	0	95	145	39	0	75	114
Alkufra	870	363	8471	9704	87	77	95	259	96	88	104	288
Alsharguiya	85	143	3769	3997	46	58	94	198	33	52	101	186
Aujala	51	0	1806	1857	34	0	92	126	38	0	87	125
Azzahra	405	727	8046	9178	78	85	95	258	105	104	131	340
Azzawya	1173	0	33719	34892	89	0	96	185	69	0	92	161
Benghazi	7243	37725	98847	143815	95	96	96	287	189	93	102	384
Bint Bayya	52	0	4309	4361	34	0	94	128	42	0	83	125
Brak	182	0	7455	7637	64	0	95	159	55	0	84	139
Derna	44	7443	14724	22211	31	95	96	222	27	97	76	200
Edri	122	35	5461	5618	54	26	95	175	41	30	75	146
Ejdabia	3000	100	24976	28076	94	50	96	240	140	92	94	326
Ejkherra	45	0	918	963	31	0	88	119	32	0	76	108
Gemienis	75	80	4118	4273	43	44	94	181	39	0	126	165
Gharb Azzawya	520	0	19150	19670	82	0	96	178	53	0	64	117
Ghat	517	87	5065	5669	82	46	95	223	90	40	81	211
Ghiryan	445	0	24732	25177	80	0	96	176	59	0	80	139
Hai Alandalus	1845	1067	51970	54882	92	89	96	277	85	96	83	264
Jalu	330	0	3456	3786	75	0	94	169	66	0	114	180
Janzour	987	198	29075	30260	88	65	96	249	98	112	91	301
Marada	0	0	637	637	0	0	84	84	0	0	63	63
Misrata	3325	33	68393	71751	94	25	96	215	80	26	85	191
Murzuq	550	156	5492	6198	82	60	95	237	68	62	82	212
Qasr Bin Ghasheer	10	4267	16821	21098	10	94	96	200	13	137	99	249
Sebha	3923	763	26912	31598	94	86	96	276	110	86	120	316
Sirt	2500	12335	9544	24379	93	96	96	285	79	122	78	279
Suloug	65	0	5196	5261	40	0	95	135	53	0	81	134
Suq Aljumaa	3115	440	52262	55817	94	79	96	269	71	67	92	230
Swani Bin Adam	30	5567	5883	11480	24	95	95	214	31	131	103	265
Tajoura	1993	50	26869	28912	92	34	96	222	88	33	86	207
Tarhuna	38	603	30430	31071	28	83	96	207	15	60	91	166
Tawergha	0	1100	0	1100	0	89	0	89	0	72	0	72
Tazirbu	0	0	1641	1641	0	0	91	91	0	0	69	69

Toukra	50	0	6764	6814	34	0	95	129	67	0	80	147
Tripoli	500	260	28292	29052	81	71	96	248	60	82	97	239
Ubari	460	5626	872	6958	80	95	87	262	61	79	127	267
Wadi Etba	1730	0	1738	3468	92	0	92	184	80	0	63	143
Zliten	2422	297	41100	43819	93	73	96	262	73	63	86	222
Total	**41224**	**114734**	**772322**	**928280**	**2821**	**2096**	**4252**	**9169**	**2731**	**2173**	**3967**	**8871**

*The population figures in the table are those used prior to data collection to establish the sample size. The population figures used for the weighting after data collection are somewhat different (see Annex 3).

**The sample sizes here are those initially calculated in line with the ToR, thus including a 10% buffer. As data collection went on, the buffers in most locations were abandoned in order to finish data collection in time for the HNO processes.

Annex 5: Data processing and quality control

The following processing and quality control measures were followed during the data collection period of this MSNA:

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 which 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, most importantly the phone number of the respondent and the phone numbers of referrals.
- 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 shorter than 10 minutes was immediately rejected. For all surveys between 10 and 20 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)
- United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)

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 Psyco-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

Volunteer quantitative data collection partners:

- STACO
- Free Fields Foundation
- Enmaa
- Danish Refugee Council (DRC)
- Norwegian Refugee Council (NRC)
- World Food Programme (WFP)

Contracted quantitative data collection partners:

- Enmaa
- Bridges of Peace
- Athar
- Lifemakers
- LIBAID
- LAYD
- Israr
- Alkufra Organization
- Diwan

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 via Moodle + Quiz
Key terms and definitions	• Key terms (enumerator, focal point, respondent, sector, assessment, data, survey, respondent, population groups, migrant, refugee)	REACH via Moodle + 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 via Moodle + 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 via Moodle + Quiz
Data collection process and overview	• How will we collect data this year? • Structure of the MSNA • Data Collection • Your commitment to REACH	REACH via Moodle + Quiz
Communication and reporting between the field and Tunis	• MSNA Workstream/Workflow • Communication organization • Contact details • Focal Point Responsibilities • Reporting	REACH via Moodle + Quiz

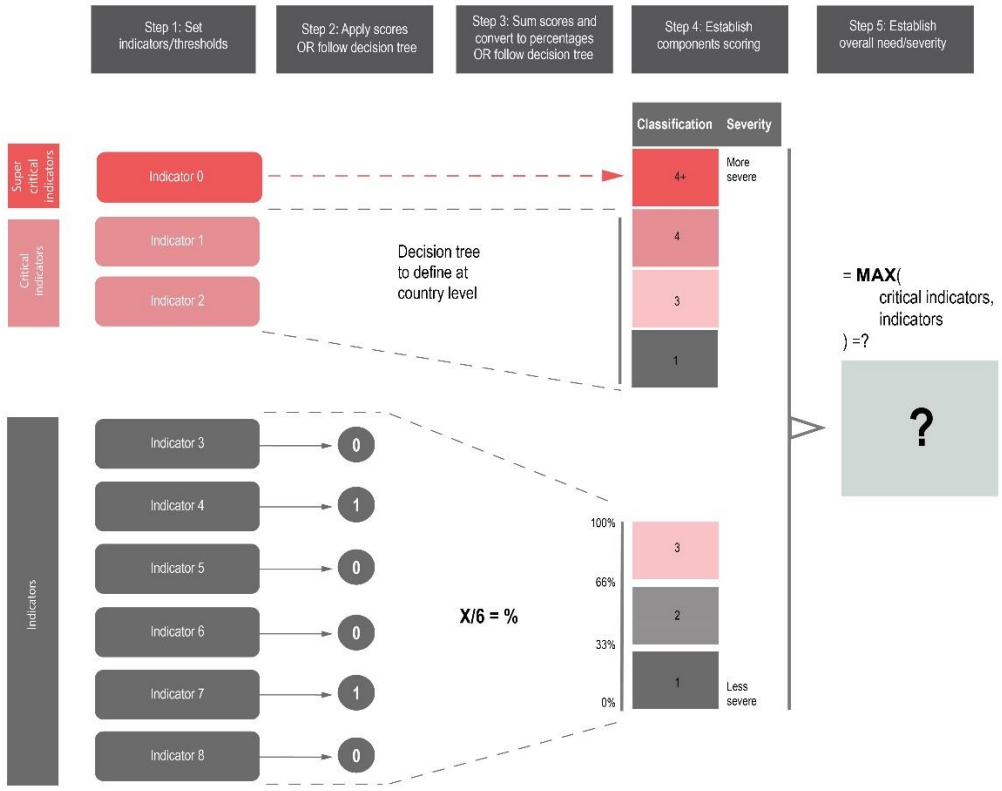
Data collection process and overview	• Workplan – phone number sharing • Data collection – what happens in one day? • Calling respondents • Data collection FAQs • Spot checks • Daily completion form • Data collection rules	REACH via Moodle + Quiz
How to use KoBo	• Why do we collect data with KoBo? • 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 via Moodle + Quiz
In-depth look at the 2021 survey	• Introduction to the questionnaire • Sensitive questions • Sensitive questions - demographic information • Sensitive questions - displacement • Sensitive questions - cash and markets • Sensitive questions - SNFIs • Sensitive questions - WASH • Sensitive questions - Food security • Sensitive questions - Health • Sensitive questions - Protection • Sensitive questions - Assistance	REACH via Moodle + 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 has been identified, 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 2021 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. 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, CG, and PEV indicators

Food security

Critical indicator:

Indicator	Question	LSG Severity			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
Food Consumption Score	Now, I would like to ask you a few questions about the meals you 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, how often you have eaten them in the last 7 days? First, how often in the last 7 days have you eaten ...	Acceptable		Borderline	Poor

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."[13] The FCS captures households' food access and adequacy.[14]

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**

[13] 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
[14] WFP, "Consolidated Approach to Reporting Indicators of Food Security (CARI)," 2nd edition, November 2015, p. 17.

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

Non-critical indicators:

Indicators	Questions	Classification	
		No need	**Need**
		0	**1**
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 action, could you tell me how many days you have had to undertake the action? Note that these questions can be sensitive, and if you prefer not to answer at any stage just let us know and we will move on. In the past 7 days, if there have been times when you did not have enough food or money to buy food, on how many days has your household had to:	Low	Medium or High
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?	<65%	>65%
	During the past 30 days, how much did you spend, in LYD, on each of the following categories of items for domestic consumption?/Food		
	During the past 30 days, how much did you spend, in LYD, on each of the following categories of items for domestic consumption?/ALL		
% of HHs that have had to reduce (totally or partially) agricultural activities in the 12 months prior to data collection	Did you or your household have to stop or reduce any of those activities in the last 12 months?	No	Yes
% of HHs that are able to access a marketplace or	Does your household have access to a marketplace or grocery store within 30 minutes travel time in your muhalla or close to your muhalla?	Yes	No

grocery store within 30 minutes of travel			

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

Reduced Coping Strategies Index (rCSI) methodology:

The calculation of the rCSI was also conducted in line with global standards.[15] The rCSI captures the quantity or sufficiency of a household's food by asking about a selection of common, less-severe food-related coping mechanisms.

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

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

Food expenditure share methodology:

The food expenditure share is calculated as follows:

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

Protection

Critical indicators:

Indicators	Questions	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of households with household members without a valid ID	Do all households members currently have a valid ID (for example Passport and/or valid national ID)?	None missing		At least one household member does not have a valid ID	
% of households with at least one child not residing in the household	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			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:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of households reporting presence of explosive hazards at neighborhood level	Are you aware of the presence of any explosive hazards in your neighborhood?	No	Yes

% of household reporting safety and security concerns	What are the main safety and security concerns for you and your family, if any? We are trying to find out any reasons why you might feel in danger in your area	None; Verbal harassement; Discrimination	Robberies; Arrest or detention; Threats; Environmental hazards; Exploitation; Harmful practices; Association armed groups; Risk of eviction; Armed conflict; Communal violence; Explosive hazards; Kidnappings; Physical violence; Sexual harassment or violence; Domestic violence; or Trafficking
% of households reporting movement restrictions in the 30 days prior to data collection	In the last 30 days, have any members of your household faced obstacles when moving within your muhalla or outside your muhalla to another muhalla/baladiya?	No restrictions, or for covid-19 related reasons only	Yes
% of households reporting feeling unsafe	Now, I would like you to assess how safe you and your family feel in your area. This may include whether or not you feel safe to leave your accommodation, travelling in your area, accessing services, etc. Please choose one of the following options:	Any other options	1 (Very unsafe) 2 (Somewhat unsafe)

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

Health

Critical indicator:

Indicator	Questions	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of HHs 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 healthcare AND no members were not able to access it when needed		No access to healthcare reported, but no members were not able to access healthcare when they needed it. OR no access to healthcare but members were able to access it when they needed it/did not need it	No access to healthcare or access to traditional healers only AND members needed healthcare in the 3 months prior to healthcare but could not access it
	If yes, 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? Note: Visiting a pharmacy does not count as obtaining health care				

Non-critical indicators:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of households who report having faced challenges in the previous three months when accessing health care % of households that reported facing challenges accessing health care	Has your household experienced any barriers or problems when accessing health care in the last 3 months? [choose up to 3 most important] What barriers if any do you think your household would experience if you needed to access health care? [choose up to 3 most important]	No problems	At least one problem
% 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 reach the nearest functional healthcare facility (including clinics, hospitals), using your normal mode of transport?	Less than 1h	More than 1h

% of 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
% of households with access to COVID-19 testing facilities	Do you have access to COVID-19 testing facilities in your Baladiya?	Yes	No or 'don't know'

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

WASH

Critical indicator:

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?	Improved facility (Flush toilet; pit latrine with slab; pit VIP toilet)			Non-improved facility (Pit latrine without slab; hanging toilet; bucket toilet; plastic bag; open hole; none)

Non-critical indicators:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of household relying on unimproved sources of water OR on the public water network with access less than 4 days per week	What is your household's main source of drinking water? Over the past 7 days, on how many days did your household have access to water from the public network?	Improved/reliable (Public network with access most or every day; bottled water; protected well; tap accessible to the public; rainwater)	Unimproved/unreliable (Public water network with access rarely or never; unprotected well; water trucking; surface water)
% of households with access to soap	Do you currently have soap in your household?	yes	no

% of households having access to a safe sanitation facility	Does the latrine/toilet have lights and locks?	Locks & lights	Either no locks or no lights, or neither
% of household with access to sufficient water for drinking and domestic uses	In the past 30 days, were there ever any times that you did not have enough water to meet any of the following needs for your household?	All needs met or only domestic needs not met	Drinking, hygiene, and/or cooking needs not met

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

Shelter & NFI

Critical indicators:

Indicators	**Questions**	**Severity rating**			
		None/Minimal	**Stress**	**Severe**	**Extreme**
		1	**2**	**3**	**4**
% of households living in substandard shelter types	What type of house or accommodation (shelter) do you live in? (Note to enumerator: do not read out list)	Apartment, house, hotel, private room in shared accommodation		Temporary shelter run by NGO, connection house, informal settlement	Outdoors, unfinished building, emergency camps not run by NGO, shared room, private or public building not usually used for shelter
% of households whose shelter solutions meet agreed technical and performance standards	Does the accommodation currently have any damage or defects? (Note to enumerator: read out list)	No damage or light damage		Medium damage	Heavy damage or destroyed

Non-critical indicators:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of households with access to a safe and healthy housing enclosure unit	Does the accommodation have any enclosure issues?	Less than 7 serious issues	At least 7 serious issues
% of households that are in urgent needs of mattresses	I will read a list of household items, please tell me which of these items your HH does not 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 owning or renting their house with security of tenure	How would you describe your occupancy status? For example, do you own the house, or is someone else paying for it?	Ownership; co-ownership; rental with contract; rental with verbal agreement; housing provided by public authority	Any other option
% of households owning or renting their house with security of tenure	Have you experienced eviction or the threat of eviction within the past 6 months?	No	Yes (threatened or evicted)

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

Education

Non-critical indicators:

Indicators	Questions	Classification	
		No need	Need
		0	1
% of households with children not enrolled and/or not attending	For the 2020-2021 school year, how many school-aged children (6-17 years) in the household were enrolled/registered in formal or non-formal school?	No non-enrolled or non-attending children	At least one child non-attending or non-enrolled

	While schools were open in the current school year (2020-2021), how many school-aged children in the household were attending formal school regularly?		
% of households reporting issues faced by children while attending school	Have any children in your household faced any issues when attending school? Examples might be problems with the children, school staff or the school building/capacities. Please list any issues that a child may have had in the last year.	No issues	At least one issue
% of households with children not enrolled in formal school	What type of education are your children enrolled in - meaning formal or non-formal; please also let us know who the provider is	Officially enrolled in formal school	Any other option

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

Capacity Gap

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.

Indicator	**Question**	**LSG Severity**			
		None/Minimal	**Stress**	**Severe**	**Extreme**
		1	**2**	**3**	**4**
% of households who resorted to using or more coping mechanisms in the 30 days prior to data collection;	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, when you had a lack of resources, did you ever have to ...	None	Stress	Crisis	Emergency

Livelihoods Coping Strategies Index methodology

The LCSI methodology is in line with global standards. The severity classification of included strategies was determined based on 2020 data and 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.)		

Pre-existing vulnerability score

Critical indicators:

Indicators	Questions	Severity rating			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of HHs by main source of income	What is your household's main source of income?	HH member working		No HH members working	No income source

% of HHs by type of employment as their main source of income	The next questions are about the job or type of employment that is your main source of income. What type of job is it?	Permanent job		Temporary job or daily labour	

Non-critical indicators:

Indicators	Questions	Classification	
		No vulnerability	Vulnerability
		0	1
Female headed HH	Is the head of household male or female?	Male-headed	Female-headed
	Enumerator to note down respondent gender (if in doubt, ask)		
Age-dependency ratio	Please tell me how many males there are of the following in your household ?	<= 0.49	> 0.49
HH income in the 30 days prior to data collection	Can you estimate your household's income (in LYD) over the last 30 days from each of the following sources?	Income above MEB	Income below MEB
% of IDP and returnee HHs that have been displaced more than once since 2011	How many times has your household been displaced since 2011?	Displaced never or once	Displaced more than once
% of IDP and returnee HHs that were first displaced in 2020 or 2021	When was your household displaced by conflict from your baladiya for the first time?	Never displaced or initially displaced prior to 2020	Displaced in 2020 or 2021
% of individuals with at least one domain reportedly with A LOT OF DIFFICULTY or CANNOT DO AT ALL (disability level 3)	Is there anyone in your household having difficulty with any of the following? [+FOLLOW-UPS]	No household members with disability level 3	Any household members with disability level 3

Non-critical indicators: PEV severity			
	None/minimal	Stress	Severe
Sum of non-critical indicator scores	<3	3	>3

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.

Annex 11: Summary of qualitative data collection triggers and locations

Key Informant Interviews (KII):

The topics and locations for the key informant interviews (KIIs) were informed by findings from the quantitative data (household surveys) of this MSNA, resulting in this part of the assessment being focused on the protection, health, and food security sectors. Triggers from the quantitative phase of the MSNA (the top three sectors with highest % of households having needs) together with extensive discussions with field partners and the sectors formed the basis for the scope for the KII phase, leading to the final KII numbers shown below. A total of 88 key informant interviews (KIIs) were conducted in-person or remotely (over the phone).

Topic	Region	Baladiya	Number of KIIs
Protection	South	Wadi Etba	6
		Ubari	6
		Alghrayfa	6
Health	West	Ghiryan	6
	South	Alsharguiya	6
		Algurdha Ashshati	6
Food Security	East	Suloug	6
		Gemienis	6
		Toukra	6
Mental Health and social networks	West	Sirt	2
		Tarhuna	2
		Ghiryan	2
		Azzawya	2
		Tawergha	2
		Misrata	2
		Tripoli	2
	East	AlKufra	2
		Benghazi	2
	South	Ubari	2
		Ghat	2
Gender and access to services	South	Ubari	3
		Brak	3
		Sebha	2
		Alghrayfa	2
	East	Ejdebia	2

Focus Group Discussions (FGD):

Overall, 34 focus group discussions (FGDs) were executed in-person, either with mixed genders or with female participants only, to investigate the more sensitive topics of women and access to services and mental health and psycho-social support (MHPSS). Triggers from the quantitative phase of the MSNA together with extensive discussions with field partners and the sectors formed the basis for the scope for the FGD phase. For this qualitative part of data collection, partners' support came from the Psycho-Social Support Team (PSS) and Terre des Hommes (TdH).

Topic	Region	Baladiya	Number of FGDs
Mental health and psycho-social support (MHPSS)	West	Misrata	2
		Tripoli	1
		Sirt	3
		Tarhuna	1
		Ghiryan	3
	East	AlKufra	3
Women and access to services		Ejdebia	3
	South	Brak	3
		Ubari	3
		Sebha	3
		Alghrayfa	3
	West	Misrata	3
		Tripoli	3

Annex 12: Enumerator agenda training qualitative training

Training Session	Sub-sections	Facilitator
General introduction to REACH and the MSNA	• Assessment purpose and scope • Objectives and outputs • MSNA structure overview • Geographical coverage • Methodology • Timeline • Lessons learnt from MSNA 2020	REACH via online/ in-person Training + FAQs
Methodology and tools	• Key terms and definitions • Conducting Key informant interviews • Conducting Focus group discussions • Techniques and rules • Roles and responsibilities	REACH via online/ in-person Training + FAQs
Online data collection Ethics, safety & security	• Data responsibility • Safety and security • Complaint mechanism • How to deal with difficult situations • Data protection forms • Sensitive data management • Managing expectations of affected communities	REACH via online/ in-person Training + FAQs
Data collection tools	• Key Informant Interview tool on Protection • Key Informant Interview tool on Health • Key Informant Interview tool on Food security • Key Informant Interview tool on Women and access to services • Key Informant Interview tool on Mental health and psycho-social support (MHPSS) • Focus group discussion tool on Mental health and psycho-social support (MHPSS) • Focus group discussion tool on Women and access to services	REACH via online/ in-person Training + FAQs
Communication and reporting between the field and Tunis	• Communication organization • Enumerator debrief form • Contact details • Field manager responsibilities • Reporting	REACH via online/ in-person Training + FAQs
Data collection methods (SOPs)	• Workplan • Data collection step by step • Data collection rules • Data collection FAQs • Daily completion form	REACH via online/ in-person Training + FAQs