2022 MSNA Methodology Overview: Migrants and Refugees in Libya

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METHODOLOGY OVERVIEW

Objectives & research questions

The primary purpose of the assessment is **to inform and update humanitarian actors' understanding of the needs that exist among refugees and migrants in the country, to inform the 2022 Humanitarian Overview, humanitarian response planning and, overall, to support a targeted and evidence-based humanitarian response**. In particular, it is intended to provide an overall, cross-sectoral understanding of vulnerabilities among refugees and migrants in Libya, their most pressing needs and the severity of needs, both within each sector and from a cross-sector perspective.

The 2022 MSNA targeted each group separately through two sub-components to provide a more nuanced understanding of the specific challenges and needs faced by refugees and asylum seekers. To meet these objectives, the Multi-Sector Needs Assessmet (MSNA) sought to answer the following research questions for the refugee and the migrant components saperately:

- What are refugees and migrants' needs across each humanitarian sector: Food Security, Shelter & NFIs (SNFI), Water, sanitation, and hygiene (WASH), Education, Health and Protection (including Gender-Based Violence (GBV) and, Child Protection); otherwise referred to as living standard gaps, and how do living standard gaps differ by:
    - assessed mantika?
    - population group (i.e. from different regions of origin for the migrants sample and the different countries for the refugees sample)?

- To what extent do refugees and migrants with sectoral needs report using different coping mechanisms? And how do those coping mechanisms employed differ by:
    - assessed mantika?
    - population group (i.e. from different regions of origin for the migrants sample and the different countries for the refugees sample)?

- What are the main factors contributing to refugees' and migrants' vulnerability?[1]
    - How do factors of vulnerability contribute to influencing refugees and migrants' humanitarian needs?

- What is the overall severity of humanitarian needs? And how does the severity of humanitarian needs differ by:
    - assessed mantika?
    - population group (i.e., from different regions of origin for the migrants sample and the different countries for the refugees sample)?

- What key factors may affect refugees and migrants' needs in the future? What are refugees and migrants' self-identified needs and preferences around the provision of humanitarian aid? And how do these needs and preferences differ by*:*
    - assessed mantika?
    - population group (i.e. from different regions of origin for the migrants sample and the different countries for the refugees sample)?

[1] Inspired by the determinants of vulnerability models developed by the International Organisation for Migration (IOM) and the Mixed Migration Centre (MMC), REACH aimed to explore how different socio-demographic factors, by themselves or in combination with other drivers, contribute to determine refugees and migrants' living standards and humanitarian needs. Resources: IOM, "Handbook on Protection and Assistance for Migrants Vulnerable to Violence, Exploitation and Abuse" (2019), available here. Mixed Migration Centre, "What makes refugees and migrants vulnerable to detention in Libya?", December 2019, available here. See also Mixed Migration Centre, "A Sharper Lens on Vulnerability (North Africa)" (November 2020), available here.

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Scope

The Refugee and Migrant MSNA was conducted at **mantika level** (admin 2). This admin level was chosen based on several factors including the fact that migrants are known to be clustered in certain mantikas and not evenly distributed across the country nor across the baladiyas within each mantika. The geographical scope differed between the refugee and the migrant components due to the different criteria employed for shortlisting the locations to be assessed:

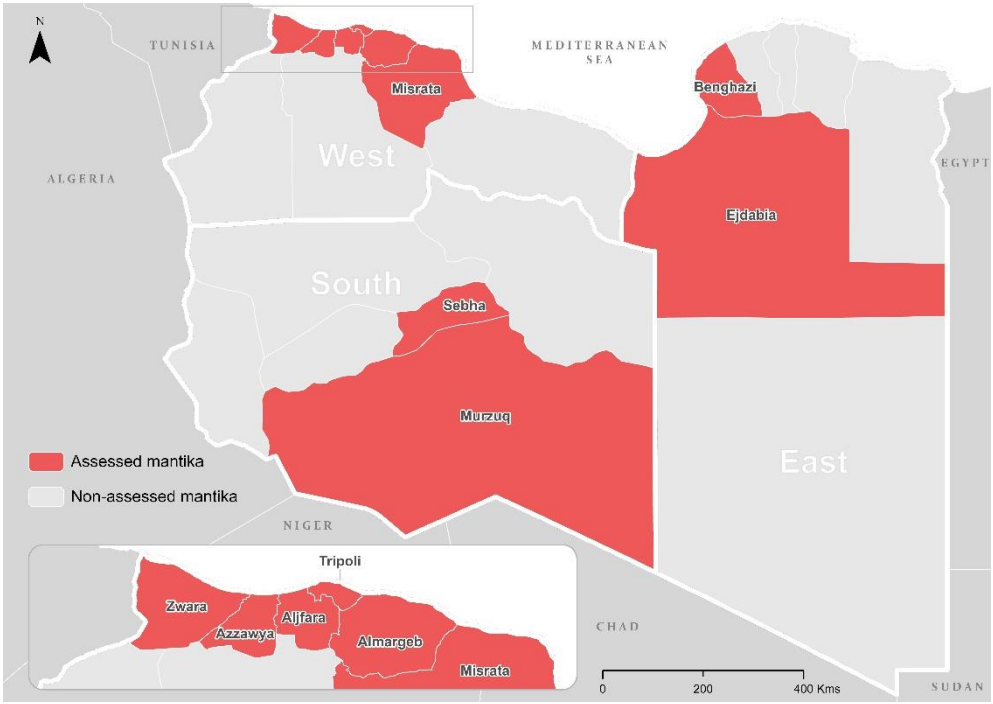
Migrant component

The migrant component of the Refugee and Migrant MSNA presents indicative needs of migrants and refugees at **mantika level** for a limited number of locations (10 mantikas). This is mainly due to the fact that migrants and refugees are not dispersed evenly throughout Libyan territory but rather known to be clustered in certain (usually urban) areas.[2] The mantikas covered in 2022 were: **Tripoli, Misrata, Azzawya, Al Margeb, Aljfara, Zwara Benghazi, Ejdabia, Sebha, Murzuq.**

These mantikas represent the top 10 mantikas with the highest numbers of migrants, based on the latest round of the IOM-DTM Migrant report (Round 40).[3] All selected mantikas host at least 3% (minimum threshold) of the overall migrant population in the country, which was deemed a reasonable minimum threshold to ensure feasibility of operations.

To reflect the diversity of experiences within the overall migrant population, the assessment relied on **quota sampling** of the overall migrant sample based on migrants' **region of origin.**[4] The regions of origin are: **West and Central Africa, Middle East and North Africa (MENA), East Africa, and Southern and Eastern Asia**. For the classification of countries according to region of origin, please see Annex 3.

Map 1: Migrant component assessment coverage



[2] These statements do not take into consideration, those migrants and refugees in detention centres.

[3] IOM-DTM, "Libya's Migrant Report: Round 40 (January 2021 – January 2022)", April 2022, available here.

[4] See for example: REACH, "Refugees and migrants' access to resources, housing and healthcare in Libya – Key challenges and coping mechanisms" (December 2017), available here; MMC, "Fraught with risk: protection concerns of people on the move across West Africa and Libya" (May 2018), available here; MMC, "What makes refugees and migrants vulnerable to detention in Libya? A micro-level study of the determinants of detention" (January 2020).

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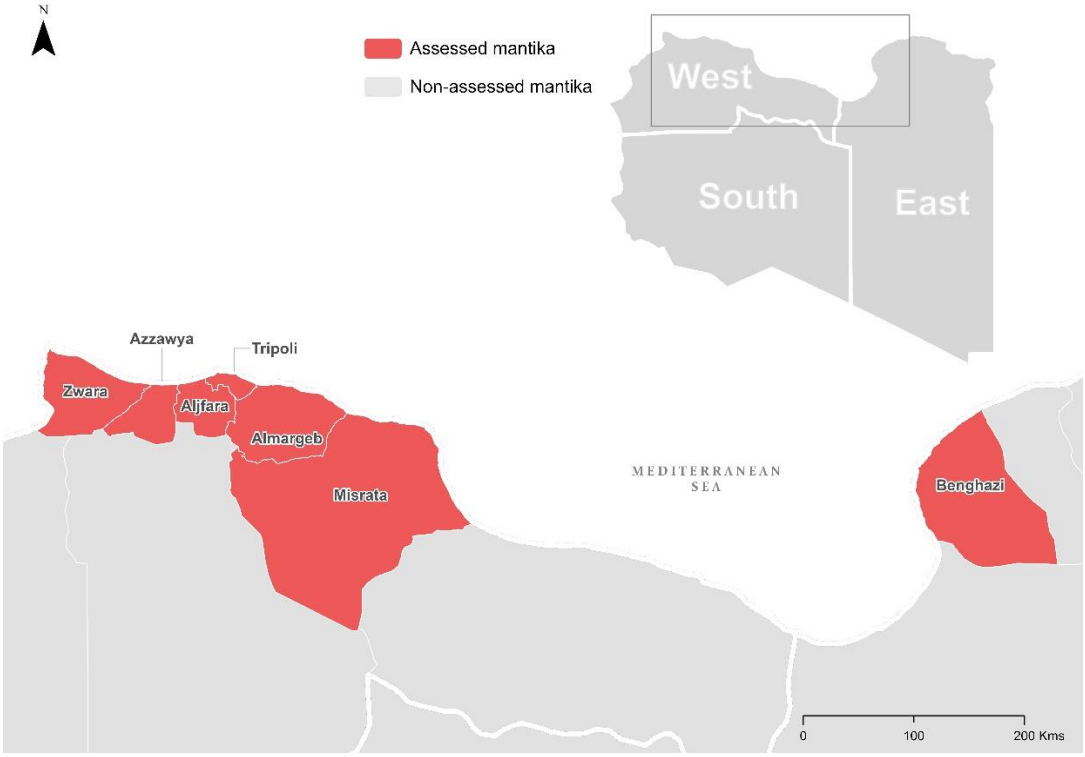
Refugee component[5]

The refugee component of the Refugee and Migrant MSNA presents indicative needs of refugees at **nationality and mantika level** for a limited number of locations (7 mantikas). The mantikas covered under this component are: **Azzawya, Al Margeb, Zwara, Aljfara, Tripoli, Mistara and Benghazi.** Refugees in the South were not assessed due to the absence of registration data of this population group in the South of Libya.

These mantikas were selected based on the distribution of the population registered with UNHCR using the most updated registration data shared by UNHCR in Libya.[6] A minimum threshold of 100 cases per nationality and mantika was set to identify sub-sets to be included in the assessment. Therefore, mantikas where no nationality groups exceeded 100 registered individual were not assessed. The minimum threshold was set in agreement with the UNHCR's Information Management team to ensure an inclusive yet feasible sampling strategy. Similarly, mantikas where only one nationality was consistently recorded (i.e. Al Jabal Al Gharbi) were not included in the sampling frame. The only exception to this rule has been in the case of refugees and asylum seekers from Iraq and Yemen, where no subsets in any location exceeded the 100 cases minimum threshold. To ensure that all 9 nationalities of interest including individuals from Yemen and Iraq are sampled in the assessment, the minimum threshold has been in this case decreased to 30 cases.

The availablity of population data from UNHCR made it possible to rely on **probability sampling** for this component. Minimum sample size was calculated for each **stratum** (nationality and mantika). The nationalities included in this sample are: **Eritreans, Ethiopians, Syrians, Yemenis, South Sudanese, Sudanese, Iraqis, and Palastenians.**

Map 2: Migrant component assessment coverage



[5] Please note that for the 2022 RM MSNA, only individuals who are registered or in the process of being registered with UNHCR are considered refugees.

[6] The dataset was provided by UNHCR and is not publicly available.

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The same survey tool was used in both components. The sectors covered in this assessment include food security, SNFI, WASH, health, education and protection (including GBV, child protection, and mine action). The tools also included significant focus on livelihoods, cash, and markets indicators as well as specific sections related to displacement, accountability to the affected population (AAP), and emergency telecommunications indicators . Please see the Terms of reference (ToR) for details.

Sampling strategy

Migrant component

For the migrants component of the Refugee and Migrant MSNA, **non-probability sampling methods** were employed, with **minimum quotas for sub-groups** established to ensure that the most accurate and robust cross-section of the migrant and refugee population is assessed to be indicative of location (quota layer 1), with proportional distribution by region of origin (quota layer 2), and minimum quotas based on gender (quota layers 3). Data from IOM-DTM Round 40[7] was used to identify migrant figures to calculate the sampling frame.

The use of **probability sampling methods was unsuitable** for this assessment. The hard-to-reach nature of migrant populations residing in Libya inhibits the ability to draw accurate, statistically representative samples of these groups. In addition, due to the difficulty in locating and surveying this population group, it was impossible to carry out random sampling, as not all members of this population would have an equal chance of getting selected. Due to the sampling strategy adopted, the 2022 Refugee and Migrant MSNA generated **non-representative data**. As a consequence, results should be considered as **indicative only.** For a full overview over the population figures the sample sizes used refer to annex 5.

Refugee Component

Given the availability of UNHCR registration figures, it was possible to apply probability sampling to the Refugee and asylum seeker component of the Refugee and Migrant MSNA. The sample sizes per strata were calculated using simple random sample calculations, with 90% confidence interval and 15% margin of error.[8] This allowed to create quotas per strata that are of a comparable size, to allow to draw findings that are indicative at strata level. However, and due to impossibility to randomise the selection of respondents, findings for this sub-component should be considered **only indicative.** For a full overview over the population figures the sample sizes used refer to annex 5.

Gender based quota

Both components included a **20% minimum quota for female respondents per mantika**, to make sure that the specific experience of refugee and migrant women was captured. Due to the hard-to-reach nature of this particular population group it was challenging to achieve this quota. Instead, **only 15% of the migrant respondents and 12% of the refugees respondents** were women.

Note that according to the population figures in the IOM-DTOM round 40[9] used to draw the sample, 12% of migrants in Libya are women; at least for the migrant component of the MSNA, this suggests that the gender ratio achieved in the sample was proportional to the IOM-DTM population data used.

[7] IOM-DTM, "Libya's Migrant Report: Round 40 (January 2021 – January 2022)", April 2022, available here.
[8] Confidence intervals were decreased and margin of error were increased to accommodate REACH budgetary and capacity limitations as more precise confidence intervals and margins of error would require larger samples
[9] [9] IOM-DTM, "Libya's Migrant Report: Round 40 (January 2021 – January 2022)", April 2022, available here.

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Gender based comparison, however, remains discouraged and should only be considered broadly indicative due to the small sample of females collected.

Primary sampling unit

While findings for Libyan population MSNA were presented at household level, **findings for both components of the Migrant and Refugee MSNA are at individual level.** As secondary sources indicate, the proportion of migrants and refugees travelling and living in Libya with their households tends to be much lower compared to those who travel and live in Libya as individuals, therefore limiting the applicability of household-level analysis in this context.[10]

Data collection

Data collection was conducted by REACH in all assessed mantikas between 31 June and 31 August 2022, with 1,780 individual surveys conducted overall. The tool used for data collection consisted of a structured, 40-minute multi-sectoral survey. Considering the challenges that occurred during data collection due to the hard-to-reach nature of these population groups, some surveys had to be conducted via the phone. This is especially true for the refugee sample as only refugees registered or currently registering with UNHCR are considered, limiting the feasibility of in person modality data collection method.[11] In addition, in the Sebha and Murzuq some surveys were conducted via the phone due to reported security concerns by REACH field team.

The tool was translated into Arabic, English and French. **Enumerators received comprehensive training** on the scope and rationale of the assessment, data collection standard operating procedures, and in-depth training on the tool (see annex 9) prior to data collection. During the training, cultural and gender considerations and how to deal with these dynamics during interviews, was also discussed. Following the training, a multiple-day pilot of data collection was carried out in order to allow enumerators to familiarise themselves with the tools.

Data from the multi-sectoral surveys was collected via the KoBo Toolbox platform, using the ODK Android application. Data checking and cleaning took place throughout data collection on a daily basis, and included the identification of outliers, correct categorisation of "other" responses, removal of personal identifiable information, and the removal and/or replacement of incomplete or inaccurate records. Data cleaning checks were carried out by REACH staff in Tunis and were reviewed and validated at HQ level (see annex 10). The data cleaning checks were be done in alignment with the IMPACT Data Cleaning Minimum Standards Checklist.

Potential respondents were identified by data collection partners, mainly civil society organisations (CSOs) by going to well-known gathering spots of migrants and randomly approaching potential respondents. In recognition of the inevitable challenges with finding enough respondents belonging to hard-to-reach populations (including female respondents) to be interviewed by approaching them directly in the public space, REACH and its data collection partners relied in some instances on snowballing methods (e.g., by approaching community leaders first).

Specific only to the data collection of the refugee component:

[10] See for example REACH, "Refugees and migrants' access to resources, housing and healthcare in Libya – Key challenges and coping mechanisms" (December 2017), available here.
[11] In collaborative efforts to reach refugee respondents, UNHCR provided REACH with a list of phone numbers of registered individuals to be contacted for the assessment.

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Potential refugee respondents were identified via two strategies. First, UNHCR shared an updated list of phone numbers for individuals registered or in the process of being registered with the agency.[12] For each phone number, the dataset provided information about the country of origin, the baladiya of residence, the gender, and the date when the number was last used/verified, to increase the response rate. Phone numbers were distributed to enumerators who have been trained on how to conduct phone surveys. This approach had previously been used for the MSNA in 2020 and 2021 but the response rate had been quite low. For this reason, as well as due to the expected better quality of data collected in person, a second strategy was employed in partnership with UNHCR and Cesvi, which consisted of granting REACH enumerators access to UNHCR facilities in Libya, in the respect of the relevant security protocols, to conduct in person interviews in parallel to UNHCR activities. In this case, respondents were selected in collaboration with UNHCR staff among individuals accessing UNHCR facilities.

These methods helped achieve the desired sample size, but put more limitations on the data collected under the refugee component of the migrants and refugees MSNA due to the higher probability of selecting respondents in the registration centres or who have a functioning phone number, which could result in some indicators potentially being under- or over-reported (e.g. emergency telecommunications questions related to phone use).

Analysis

Quantitative data analysis

The REACH MSNA analysis method was developed internally by REACH and is implemented primarily using data collected through the MSNA. Analysis aims to determine the proportion of respondents per stratum (location or region of origin) that have **sectoral needs 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.
- **Severity:** signifies the "intensity" of needs, using a scale that ranges from 1 (minimal/no need) to 4 (extreme needs).
- **Magnitude:** corresponds to the overall number or percentage of respondents in need.
- **Socioeconomic vulnerabilities:** signifies the underlying vulnerabilities such as the type of job reported, the presence of social network, and coping capacities. The latter was incorporated in the indicators making up sectoral LSG scores (notably the food secuirty LSG).
- The **Multi-Sectoral Needs Index (MSNI)** is a measure of the respondent'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 respondent.

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 respondent'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.

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

[12] In the respect of standard protocols for sharing sensitive data (the dataset were password protected; it was accessible to the minimum number of individuals within REACH; it was stored safely on REACH server, and only the numbers with no additional information were shared with the enumerators, emphasizing the importance of destroying the files once data collection is concluded).

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on the Multi-Dimensional Poverty Index (MPI) aggregation approach. Using this method, each respondent was assigned a "deprivation" score according to its deprivation in the component indicators. The deprivation score of each respondent was obtained by calculating the percentage of the deprivations experienced, so that the deprivation score for each respondent 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 respondent was considered to have a particular gap or not was determined in advance for each indicator together with the Organisation for the Coordination of Humanitarian Affairs (OCHA), the Assessment Working Group (AWG), and the active sectors in Libya. 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 respondent. 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.

The MSNI is a measure of the respondent'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 respondent. Based on the severity of each of the sectoral LSGs calculated per respondent, a final severity score (MSNI) is determined for each respondent based on the **highest severity of sectoral LSGs identified.** Regardless of whether a respondent 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. While this approach makes sense from a response planning perspective (if a respondent 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 respondents.

The 2021 MSNA drew on similar analytical concepts and followed a similar analytical approach. However, differences in the sampling strategy and geographic coverage compared with the 2021 Migrant and Refugee MSNA and the 2022 Migrant and Refugee MSNA mean that any **comparisons between findings from different MSNAs are discouraged, and should be considered only broadly indicative.**

Secondary data

The secondary data review for the 2022 Refugee and Migrant MSNA built upon the literature review carried out for the 2021 Libyan population and Migrant and Refugee MSNAs. In addition to this, prior to, throughout and after data collection, the assessment team monitored the most updated resources of secondary data to inform: definitions; the design and content of the questionnaires; the categorisation of areas and target population groups for assessment; and to ensure contextualisation and triangulation of findings for the final output production. The main sources included: IOM-DTM Round 40 data for December-January 2022[13], UN OCHA's 2022 Libya HNO[14], the 2020 Libyan population and Refugee and Migrant MSNAs[15], migrant and refugee-specific assessments published by UN agencies, INGOs, think-tanks, national institutions, and media outlets. For more information, please refer to the TOR.

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

[13] IOM-DTM, "Libya's Migrant Report: Round 40 (December 2021 – January 2022)", April 2022, available here.
[14] OCHA, Libya Humanitarian Needs Overview 2022, December 2021, available here.
[15] REACH, "Multi-sector Needs Assessment: Refugee and Migrant Population", May 2021, available here, and REACH, "Multi-sector Needs Assessment: Libyan population", May 2022, available here.

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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, including strict protocols on the treatment and deletion of phone numbers given to enumerators. The agenda of the trainings conducted ahead of the quantitative data collection is in annex 9 below. 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 emphasising 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, the key findings presentation (the joint analysis workshop presentation) for the 2022 Refugee and Migrant MSNA was translated into Arabic, to allow for better dissemination to partners operating in Libya.

Challenges and limitations

Quantitative data collection

- **Remote data collection:** Due to the hard-to-reach nature of the respondents, a contingency plan of using phone numbers to collect data was established. Data collection for the 2022 MSNA was conducted mainly in person but in some cases (especially for the refugee component) the surveys were conducted over the phone. This created some particular challenges and limitations:
    - Given the expected 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;
    - As privacy could not be ensured, sensitive topics were not included in the assessment to avoid creating risks for respondents.
- **Underrepresentation of certain population groups in specific locations:** Considering the hard-to-reach nature of refugee and migrant populations in Libya and the scarcity of population figures on this group, it is likely that particularly hidden populations (e.g. individuals in detention center, hospitals or under the radar due to protection concerns) were underrepresented in the survey. In addition, the survey lacks specific indicators related to mental health or disability. It is also not possible to know through the MSNA questionnaire how experiences differ, if at all, based on gender identity, religious beliefs, ethnic origin, marital status, skin colour, or disability status. This creates a gap in the literature and in the availability of data, and future research is important to shed light on the experience of marginalised and/or less visible groups, especially in the context of migration through Libya, where violations against human rights are still being recorded.[16]
- **Gender disaggregation:** Given a lack of available population data on gender disaggregation within sub-groups of migrants and refugees based on region of origin and nationality, gender was taken into account through a proportional distribution of female respondents in the total sample, reflective of the overall distribution of the female population within the migrant and refugee group.[17] As a consequence, gender-disaggregated findings are presented for the total sample and not for any of the assessed subsets (per location or region of origin). Thus, more research is needed to shed the light on the experiences of refugee and migrant women from various nationality groups in Libya.

[16] United Nations Support Mission In Libya (UNSMIL), "Desperate and Dangerous: Report on the human rights situation of migrants and refugees in Libya", (2018). Accessed December 1, 2022. Available here.
[17] IOM-DTM, "Libya's Migrant Report: Round 40 (December 2021 – January 2022)", April 2022, available here.

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- **Limitations of the individual-level survey:** The MSNA survey was conducted at individual level, to account for refugees' and migrants' propensity to travelling and living in Libya as individuals, rather than with their households.[18] As a consequence, no information is available about household-related vulnerabilities, including disability of family/household members.

- **Underrepresentation of protection concerns:** While the multi-sectoral questionnaire included a section dedicated to protection, including access to documentation and safety and security concerns, a quantitative survey administered partially via phone is not equipped to fully capture protection concerns, which are therefore likely to be under-reported. For example, less than 3% of both the migrant and the refugee sample reported sexual harassment or violence as a security concern. In addition, some dimensions of protection are better assessed at area level as they pertain to area-level threats, which may or may not be felt and reported by respondents, rather than experienced incidents at the individual level. In order to mitigate this limitation, the MSNA did include some area-level questions on areas avoided by certain popualtion groups due to perceived danger.

- **Reporting bias:** Certain indicators may be under- or over-reported due to the subjectivity and perceptions of respondents. For instance, indicators with an extended recall period of six months (such as questions related to income, barriers to access assistance) may be liable to a certain degree of inaccuracy, as they are dependent on respondent's ability to remember events in the past.

- **Subset indicators:** Findings related to a subset of the overall population may have a wider margin of error, potentially yielding results with lower precision. Any findings related to subsets are indicated as such throughout the output.

- **Limited traingulation:** Limited triangulation: The analysis relied mainly on the primary data collected through structured tools. Due to the limited budgetary and operational capacity, it was not possible to conduct a semi-structured component as a follow-up to the general themes triggered by the MSNA findings (e.g. protection, WASH, or SNFI (top 3 sectors where needs are found to be the highest). Instead, a separate exercise focusing on child protection among migrant children is being conducted to shed the light on migrant children's experience in Libya. Publications concerning this exercise will be available soon on the reach resource center accessible here.

- **Lack of detailed data:** The MSNA is a broad, inter-sectoral tool that is primarily developed to give an overview of overall needs. Particularly technical sectors (e.g. health) should ideally be triangulated. For instance, we can research access to healthcare and health barriers, but we cannot conduct precise diagnostic research on morbidity prevalence (which is also contributing to needs).

[18] See for example REACH, "Refugees and migrants' access to resources, housing and healthcare in Libya", December 2017, https://reliefweb.int/report/libya/libya-refugees-and-migrants-access-resources-housing-and-healthcare-libya-key.

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ANNEXES

Annex 1: Terms of reference and data

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

Terms of reference (ToR)

- Refugee and migrant population MSNA ToR can be found here.

LSG framework:

- Refugee and migrant population MSNA LSG framework can be found here.

Quantitative surveys

- Refugee and migrant population MSNA quantitative tool can be found here.

Dataset and results tables

- Refugee component of the migrant and refugee population MSNA dataset can be found here.
- Migrant component of the migrant and refugee population MSNA dataset can be found here.
- Refugee component of the migrant and refugee population MSNA results table can be found here.
- Migrant component of the migrant and refugee population MSNA results table can be found here.

Bulletin

- Refugee and migrant population MSNA buletin can be found here

Factsheets

- Refugee population multisector needs and displacement findings can be found here.
- Migrant population multisector needs and displacement findings can be found here.

Presentations

- Refugee and Migrant Population MSNA sectoral key findings presentation can be found here.
- Refugee and Migrant Population MSNA sectoral key findings presentation can be found *in Arabic* here.

Annex 2: Key definitions

1. Coping mechanisms: Coping mechanisms indicate the degree to which respondents 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.

2. Living standards: As a result of the impact, the ability of respondents 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.

3. Living Standard Gap (LSG): Signifies an unmet need in each sector, where the LSG severity score is 3 or higher.

4. socioeconomic vulnerabilities: Refer to the respondent-level conditions that may influence the respondent's ability to access services and fulfil basic needs across all sectors. Socioeconomic vulnerabilities are of interest because they may further aggravate humanitarian needs, and already-vulnerable respondents might find it more difficult to recover from shocks.

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

6. Migrant: An umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons. The term includes a number of well-defined legal categories of people, such as migrant workers; persons whose particular types of movements are legally defined, such as smuggled migrants; as well as those whose status or means of movement are not specifically defined under international law, such as international students.[19] The definition used by IOM as well as the population data collected by IOM-DTM are the definition and the data used in this assessment.

7. Refugee: A person who, owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.[20] For the refugee and migrant assessment, only those who are registered or in the process of being registered with UNHCR are considered.

17. Asylum seeker: A person fulfilling the description above who is seeking international protection abroad but has not yet been formally recognised as a refugee. Within the refugee and migrant MSNA this would mean individuals who are in the process of being registered with UNHCR.

[19] IOM, "Who is a migrant?", available here.
20 Convention relating to the Status of Refugees, adopted on 28 July 1951.

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Annex 3: Classification of countries according to selected regions of origin

The classification of the different nationalities into regions of origins draws upon the UN Statistics Division standard composition of geographical regions, with two noteworthy deviations:

I. Western Africa and Middle Africa are considered jointly as "West and Central Africa", based on the overall similarity of needs and profiles between Western and Central Africa refugees and migrants, as shown by the 2020 Refugee and Migrant MSNA;

II. Northern Africa and specific countries from Western Asia are classified as "Middle East and North Africa (MENA)", based on the consideration that aspects such as language affinity, ethnicity and historical ties are factors conducive to easier integration and access to services.[21]

The table below shows the countries of origin of refugees and migrants in Libya, classified according to the four aforementioned regions of origin.

West and Central Africa	East Africa	MENA	Southern and Eastern Asia
Burkina Faso	Ethiopia	Algeria	Bangladesh
Cameroon	Eritrea	Egypt	Pakistan
Chad	Somalia	Iraq	India
Côte d'Ivoire	South Sudan	Morocco	Philippines
Gambia	Zambia	Palestine	
Ghana		Sudan	
Guinea		Syrian Arab Republic	
Mali		Tunisia	
Mauritania		Yemen	
Niger		Jordan	
Nigeria		Lebanon	
Senegal			

[21] See for example: IMPACT, "Mixed migration routes and dynamics in Libya in 2018", June 2019, available here.

Annex 4: Detailed individual survey sampling strategy and process

Data sources

To create the assessment's sampling frame, two data sources were used:

- **IOM-DTM Round 40 (January-February 2022) dataset**: Data from IOM-DTM Round 40 was used to identify refugee and migrant figures to calculate the sampling frame. This was the most recent IOM-DTM dataset available at the start of data collection for the survey.[22]
- **UNHCR database of registered refugees and asylum seekers in Libya**.[23]

Calculation of sampling quotas for each stratum

Migrant component:

1. Using IOM-DTM population figures, the **total population of migrants for all 10 assessed mantikas** was calculated and subset by the four regions of origin.
2. **To calculate the sample size, an initial sample of 965 was purposively set, based on the sample size adopted in previous years, as well as REACH data collection capacity. This initial sample was then distributed across the selected locations** in order to determine the total quota per each mantika (quota layer 1). This was calculated by dividing the total sample proportionally based on the share of the overall refugee and migrant population determined to be residing in each one of the assessed mantikas. For example, as 22% of the total migrant population living in the 10 assessed mantikas was reported to reside in Tripoli, a quota of 210, corresponding to 22% of the total sample, was set for respondents in Tripoli.
3. **The quota per each mantika was then distributed across region-of-origin groups** in that mantika, proportionally to their relative size (quota layer 2). Thus, for example, of 210 respondents to be interviewed in Tripoli, 72 (34%) were from MENA, as this sub-group makes up 55% of the total refugee and migrant population in that location. Sub-groups that count for less than 3% of the total refugee and migrant population in that location were not be assessed.
4. To enable comparability across different region-of-origin groups at mantika level and at national level, and to limit chances that groups were underrepresented in the final sample be underrepresented in the final sample, **a minimum threshold of 100 interviews per region of origin (across all mantikas) was set**. Region-of-origin quotas (across all mantikas) that were originally found to fall below 100 were oversampled accordingly; the additional interviews were distributed across locations proportionally based on the share of the population sub-total determined to be residing in each one of the mantikas. The choice of oversampling specific groups finds its rationale in the hard-to-reach nature of certain region-of-origin groups (primarily East Africans), which for this reason may be reasonably expected to be underrepresented in the population figures available.[24] As a result of oversampling, the final sample was increased from **965 to 1110 interviews.**
5. As IOM-DTM data does not provide an estimate of the gender of migrants and refugees subset per region of origin, within each mantika, the distribution of interviews by gender was calculated based on the proportion of women among all migrants and refugees in Libya, estimated by IOM-DTM at 12% (consequently, sub-samples based on gender for each location are not included in the sampling). Instead, **within each region-of-origin sample,**

[22] IOM-DTM, "Libya's Migrant Report: Round 40 (December 2021 – January 2022)", April 2022, available here.
23 UNHCR bilaterally shared the distribution of registered cases (from the mentioned 9 nationalities) across all Libyan mantikas.
[24] See, for example, Danish Refugee Council, "Weighing the risks. Protection risks and human rights violations faced by migrants in and from East Africa", October 2017, available here.

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interviews targeted a minimum of 20% female respondents and a maximum of 80% male respondents. A non-proportional quota sampling approach was used to set thresholds for gender quotas within samples in each location, to ensure a balanced geographical distribution of female respondents.

Refugee component:

For every strata (mantika and nationality) a quota was calculated based on simple random sampling strategy such the desired statistical constraint of a 90% confidence interval and a 15% margin of error could be respected.

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Annex 5: Sampling frame

Refugees component:

Population figures										
Mantikas	Eritrean	Ethiopian	Palestinian	Somalian	South Sudanese	Sudanese	Syrian	Iraqi	Yemeni	Total
Aljfara	264	123		159	139	3349	454	16	8	4512
Almargeb						511	125	8	5	649
Azzawya						877	188	14	2	1081
Benghazi			110				134	3	1	248
Misrata						441	897	28	9	1375
Tripoli	3532	681	323	909	119	4837	1735	73	34	12243
Zwara						501	113	14	1	629
Total	3796	804	433	1068	258	10516	3646	156	60	20737
Targeted number of surveys										
Mantikas	Eritrean	Ethiopian	Palestinian	Somalian	South Sudanese	Sudanese	Syrian	Iraqi	Yemeni	Total
Aljfara	28	25		26	25	30	29			163
Almargeb						29	25			54
Azzawya						30	27			57
Benghazi			24				25			49
Misrata						29	30			59
Tripoli	31	30	28	30	25	31	30	22	17	244
Zwara						29	25			54
Total	59	55	52	56	50	178	191	22	17	680
Total number of surveys collected										
Mantikas	Eritrean	Ethiopian	Palestinian	Somalian	South Sudanese	Sudanese	Syrian	Iraqi	Yemeni	Total
Aljfara	28	25			26	25	30	29		163
Almargeb							29	25		54
Azzawya							30	27		57
Benghazi				24				25		49
Misrata							29	30		59
Tripoli	31	30	22	28	30	25	31	30	17	244
Zwara							29	25		54
Total	59	55	22	52	56	50	178	191	17	680

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Migrants component:

	Population figures					Target number of surveys					Total number of surveys collected				
Mantikas	East Africa	MENA	South and East Asia	West and Central Africa	Total	East Africa	MENA	South and East Asia	West and Central Africa	Total	East Africa	MENA	South and East Asia	West and Central Africa	Total
Aljfara	1889	12549	932	23875	39245	19	24	5	46	94	19	24	5	46	94
Almargeb	0	9214	237	21087	30538	0	18	0	41	59	0	18	0	41	59
Azzawya	2578	14620	1695	29179	48072	26	28	10	57	121	26	28	10	57	121
Benghazi	1070	41919	5725	13357	62071	11	82	32	26	151	11	82	32	26	151
Ejdabia	0	34645	3627	19486	57758	0	67	20	38	125	0	67	20	38	125
Misrata	455	27929	2405	41557	72346	0	54	14	81	149	0	54	14	81	149
Murzuq	0	2427	10	20835	23272	0	5	0	41	46	0	5	0	41	46
Sebha	0	2379	145	17346	19870	0	5	0	34	39	0	5	0	34	39
Tripoli	3320	36770	3593	64179	107862	32	72	20	125	249	32	72	20	125	249
Zwara	1212	17801	696	15489	35198	12	35	0	30	77	12	35	0	30	77
Total	10524	200253	19065	266390	496232	100	390	101	519	1110	100	390	101	519	1110

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Annex 6: 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 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 individual 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 tracking dashboard established and ran by the Database Officer. The Dashboard and the database officer ran to following queries:

- Checked for any duplicates
- Ran an enumerator behaviour script that flaggs the frequency of errors per enumerator to control for falcifying surveys and/or missundrestanding of questions or answer options. The results are shown in the dashboard as a heat table that helped the assessment team spot anomalies.
- Ran a data cleaning script that flagged any inconsistent or nonsensical data, based on a pre-defined list of potential errors.

The anonymised scripts were 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 the assessment officer 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 assessment officer to identify and remove any outlying data points.

All surveys were additionally checked on duration of the interview. Any survey that took less than 10 minutes was immediately rejected. For all surveys between 10 and 20 minutes, enumerator follow-ups took place. In addition, surveys that took considerably long amount of time (e.g., 3 hours), follow-ups took place, if no reasonable explanation (e.g., taking long to explain the question in simple Arabic for non-Arabic speakers) was provided, the surveys were rejected for quality.

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Annex 8: List of partners involved

Funded by:

- United Nations High Commissioner for Refugees (UNHCR)

Endorsed by:

- Assessment Working Group (AWG)
- Information Management Working Group (IMWG)

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 Area of Responsibility (AoR)
- GBV AoR
- Mine Action AoR
- Mental Health and Psycho-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

Data collection partners:

- Daam
- Lifemakers
- Bawader

Data collection for the refugee component was concluded in collaboration with:

- United Nations High Commissioner for Refugees (UNHCR)
- Cesvi

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Annex 9: 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 field staff + Quiz
Key terms and definitions	• Key terms (enumerator, focal point, respondent, sector, assessment, data, survey, respondent, population groups, migrant, refugee)	REACH field staff + 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 field staff + 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 field staff + Quiz
Data collection process and overview	• How will we collect data this year? • Structure of the MSNA • Data Collection • Your commitment to REACH	REACH field staff + Quiz
Communication and reporting between the field and Tunis	• MSNA Workstream/Workflow • Communication organization • Contact details • Focal Point Responsibilities • Reporting	REACH field staff + Quiz

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Data collection process and overview	• Workplan – phone number sharing • Data collection – what happens in one day? • Calling respondents (when applicable) • Data collection FAQs • Spot-checks • Daily completion form • Data collection rules	REACH field staff + 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 field staff + Quiz
In-depth look at the 2022 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 field staff + Quiz

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Annex 12: Identification of LSG, CG, and PEV

The LSG for a given sector is produced by aggregating unmet needs indicators per sector. For the 2022 MSNA, a simple aggregation methodology has been identified, building on the Multidimensional Poverty Index (MPI) aggregation approach. Using this method, each unit (respondent for example) is assigned a "deprivation" score according to its deprivations in the component indicators. The deprivation score of each respondent is obtained by calculating the percentage of the deprivations experienced, so that the deprivation score for each respondent 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 respondent 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 following steps were taken to produce the aggregation using respondent-level data:

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 respondent, once data had been collected;
4) Calculated the severity score for each respondent, based on the following decision tree (tailored to each sector);
    a. Critical indicators: Using a decision tree approach, a severity class was 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 were 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 was 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 respondents 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 respondents with a severity score of 1 or 2;
    b. b. If any CG indicator has a score of 1, the respondent 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.

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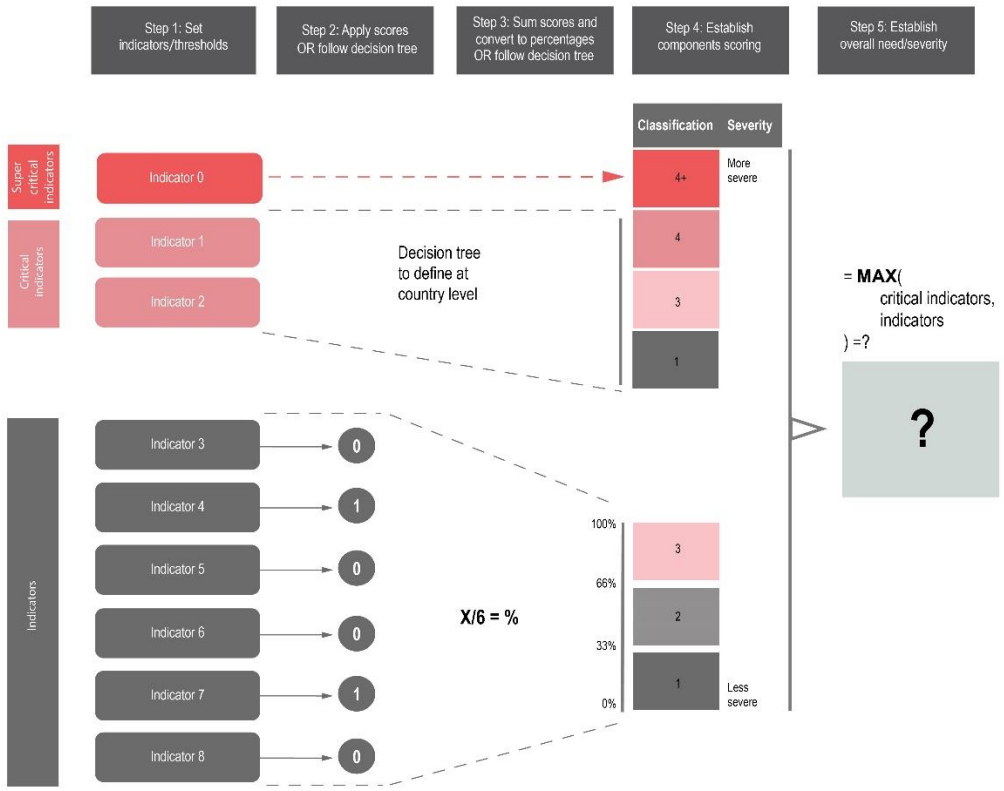
Figure 1: Identifying LSG per sector with scoring approach – example



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Annex 13: LSG framework

Food security

Critical indicator:

Indicator	Question		Severity rating			
		NA	None/Minimal	Stress	Severe	Extreme
			1	2	3	4
Food Consumption Score, by % of respondents (poor / boderline / acceptable)	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 ...	NA	Acceptable		Borderline	Poor

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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? If yes, 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? If yes, 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? If yes, how often did this happen in the past 30 days?	NA	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."[25] The FCS captures households' food access and adequacy.[26]

[25] 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

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

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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

Note that as per the global standards the FCS questionnaire should be asked at household level. Due to the fact that the migrants and refugees MSNA is conducted at individual level, the questions were asked accoridngly. This limits the extent to which further analysis could be done on this specific indicator.

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 not the nutritional quality of the accessed food.[27]

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]
If yes and Often (more than 10 times)	2	[household answer]	2 * [household answer]

[27] FANTA, "Household Hunger Scale: Indicator Definition and Measurement Guide," August 2011. Available here.

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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 migrants and refugees 2022 MSNA and outlined in the table above (None, Slight, Moderate, Severe and Extreme) are more elaborate than the categorisation used by the original mthodology (Little to no hunger (0-1), moderate hunger (2-3) and severe hunger (4-6)).[28] This was done to allow for more specific cateogirisation of especially the highest score 6 into an extreme category that would signal an extrme food insecurity. This was also done to differenciate between respondents answering No to all of the categories thus having a score of zero versus if the respondent reports just one category with the lowest frequency possible, meaning having a score of 1.

Non-critical indicators:

Indicator	**Question**	**Classification**		
		NA	**No need**	**Need**
		NA	**0**	**1**
% of respondents relying on food-based coping strategies to cope with a lack of food in the last 7 days (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: 1. Borrow/receive food from friends or relatives 2. Limit portion size for all HH members at mealtimes 3. Reduce portion sizes and meals for adults in order for small children to eat	NA	Low	Medium or High

[28] FANTA, "Household Hunger Scale: Indicator Definition and Measurement Guide," August 2011. Available here.

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	4. Reduce the number of meals eaten in a day (for all HH members) 5. Rely on less preferred and less expensive foods			
Food expenditure share (Expenditure on food/Total expenditure)	During the past 30 days, how much did you spend, in LYD, on each of the following categories of items for domestic consumption?/ALL	NA	<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	NA		
% of respondents that are able to access a marketplace or grocery store	Do you have access to a marketplace or grocery store within 30 minutes travel time in your mahalla or close to your mahalla?	Don't know/ don't want to answer	yes	no
% of respondents who resorted to using one or more livelihood coping strategies, by type of strategy	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, when you had a lack of resources, did you ever have to [Sell non-productive household assets or goods (TV, household appliance, furniture, gold, etc.) Spend savings Borrow money from others Buy food items on credit Sell productive household assets or means of transport (sewing machine, wheelbarrow, car, etc.) Reduce expenses on health (including drugs)		Low	Medium of High

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	Work in exchange of food Mortgage/Sell house or land Adult HH members engaged in risky, degrading or illegal income activities (e.g. theft, smuggling) Begged and/or scavenged (asked strangers for money/food)]			

Non-critical indicators: LSG severity			
	None/minimal	**Stress**	**Severe**
Sum of non-critical indicator scores	<=1	2	>=3

Reduced Coping Strategies Index methodology:

The calculation of the rCSI was also conducted in line with global standards.[29] 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**

[29] WFP, "The Coping Strategies Index: Field Methods Manual," 2nd edition, January 2008, p. 17. Available at: https://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

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Step 2: Classification of rCSI severity			
	Low	Medium	High
Household's total weighted score	<=3	>3 and <=18	>18

Food expenditure share methodology:

The food expenditure share is calculated as follows:

$$\frac{Food\ expenditures}{Total\ expenditures} \times 100$$

Livelihoods coping strategy Index methodology:

Please refer to the section capacity gap below for detailed methodology of the LCSI.

WASH

Critical indicator:

Indicator	Question	Severity rating				
		NA	None/Minimal	Stress	Severe	Extreme
		NA	1	2	3	4
% of respondents 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)	Don't know Don't want to answer	Access to improved sanitation facilities- (Flush toilet; pit latrine with slab; pit VIP toilet), shared with <5 people	Access to improved sanitation facilities, shared with >= 5 people but <20	Access to unimproved facility (Pit latrine without slab; hanging toilet; bucket toilet) OR Access to improved sanitation facilities, shared with 20 people or more"	Disposal of human faeces in open spaces or with solid waste
% of respondents sharing sanitation facility, by number of respondents per sanitation facility	How many individuals that are not members of your household do you share this sanitation facility (latrine/toilet) with?					
% of respondents by type of primary	What is your main source of water	Don't know Don't want to answer	Public network (connected to the shelter)	Public network (connected to the neighbour's	Unprotected well Borehole or tubewell Unprotected	Surface water (lakes, ponds,

source of drinking water % of respondents by time (minutes) taken to fetch water (round trip by walking, queuing and time needed to fetch water)	How long does it take to go to your main water source, fetch water, and return (including queuing at the water source)		OR (Public network (connected to the neighbour's shelter) Bottled water Sachet water Water trucking Tap accessible to the public /standpipe Water kiosk Protected well (e.g. in your house or in the mosque) Cart with small tank / drum Protected spring Other (please specify) AND durationtogetwater=<30min	shelter) Bottled water Sachet water Water trucking Tap accessible to the public /standpipe Water kiosk Protected well (e.g. in your house or in the mosque) Cart with small tank / drum Protected spring Other (please specify) AND duration to get water>=30min	spring Rainwater	rivers, etc.)
% of respondents 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?	Don't know Don't want to answer	None of these, I always had enough water	Other domestic purposes (cleaning house, floor, etc.)	Cooking AND Personal hygiene (washing or bathing)	Drinking

Non-critical indicators

Indicator	Question	Classification		
		NA	No need	Need
		NA	0	1

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Most reported problems with sanitation facilities, by %	Do the sanitation facilities you commonly use have any of the following problems?	Don't know/ don't want to answer	No problems	Any problems
% of respondents with access to soap	Do you currently have soap in your household?	Don't know/ don't want to answer	yes	no

Non-critical indicators: LSG severity			
	None/minimal	**Stress**	**Severe**
Sum of non-critical indicator scores	0	1	2

Protection

Critical indicator:

Note on the protection indicators: It is not possible to be classified as having extreme protection needs due to a lack of personal safety indicators in the MSNA.

Indicator	**Question**	**Severity rating**				
		NA	**None/Minimal**	**Stress**	**Severe**	**Extreme**
		NA	**1**	**2**	**3**	**4**
% of respondents reporting obstacles to accessing legal documentation, by type of obstacles % of respondents (HH) whose access to basic services has been disrupted due to lack of required legal documentation	What are the obstacles, if any, to obtain legal documentation (e.g. national ID, travel documents, UNHCR registration certificate, residence permit, work permit..)? During the past three months, did lack of documentation ever prevent you from	Don't know / don't want to answer	Individual **is not** facing obstacles for obtaining legal documentation	Individual **is** facing obstacles for obtaining legal documentation AND lack of documentation **does not** prevent him/her from accessing essential services	Individual **is** facing obstacles for obtaining legal documentation AND lack of documentation **does** prevent him/her from accessing essential services	

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	accessing any of the following?					

Non-critical indicators:

Indicator	Question	Classification		
		NA	No need	Need
		NA	0	1
% of respondents reporting safety and security concerns	What are your main safety and security concerns, if any? We are trying to find out any reasons why you might feel in danger in your area	Don't know/don't want to answer	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 respondents with no support network	If you were to experience a serious problem (e.g. you were abused, someone robbed you, you were evicted, you could not access services for fear of arrest), who would you resort to for support and help?	Don't know/don't want to answer	**Every choices but** "There is no one who could help me/I would not ask for help or report the problem" or "Don't know"	"There is no one who could help me/I would not ask for help or report the problem" or "Don't know

% of respondents that have experienced movement restrictions in the last 30 days	In the last 30 days, have you faced obstacles when moving within your muhalla or outside your muhalla to another muhalla/baladiya?	Don't know/don't want to answer	No movement restrictions OR movement restrictions (selected only C19 restrictions)	Movement restrictions (all options apart from C19 restrictions)
	If yes, what are the main barriers that you face when moving within your muhalla or outside of your muhallah to another muhalla/baladiya?			

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

Shelter and Non-Food Items

Critical indicators:

Indicator	**Question**	**Severity rating**				
		NA	**None/Minimal**	**Stress**	**Severe**	**Extreme**
		NA	**1**	**2**	**3**	**4**
% of respondents without any shelter or living in inadequate shelter	What type of shelter do you live in?	Don't know/ don't want to answer	Private room in an apartment/house shared with other people (not family members) Apartment (not shared) House Other OR Room shared	Hotel OR Room shared with other people (not family members) AND 2<shelter issues< 7	Private building not usually used for shelter (e.g. Basement, garage, store, warehouse, etc.) Public building not usually used for shelter (e.g. School, mosque, etc.) Temporary shelter provided by INGO or local NGO Camp or	Connection house (note to translator refers to a house arranged by smugglers) Outdoors /no shelter Emergency shelter not
	In total, how many persons, including children, do you share your bedroom or sleeping space with?					

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	Does your shelter have any of the following issues (due to damage and/or defects)?		with other people (not family members) AND shelter issues=<2		informal settlement OR Room shared with other people and shelter issues>=7	provided by iNGOs or local NGOs (e.g. tent or caravan) Unfinished/unenclosed building
% of respondents whose shelter solutions meet agreed technical and performance standards	Does the accommodation currently have any damage or defects? (Note to enumerator: read out list)	Don't know/ don't want to answer	No/light damage		Medium damage	Heavy damage or destroyed

Non-critical indicators:

Indicator	Question	Classification		
		NA	No need	Need
		NA	0	1
% of respondents with sufficient core NFI	I will read a list of 13 household items, please tell me which of these items you do not have and need urgently. [30]	Don't know Prefer not to answer	Not missing items outlined under need	Missing at least 75% of winter items or at least 66% of kitchen and home items or missing 100% of summer items* *In line with Libya SNFI sector 2021 HNO PiN categories
% of respondents living in a functional domestic space	What issues, if any, do you face in terms of living conditions inside your shelter?	Don't know Prefer not to answer	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)

[30] Household items listed included: mattresses, blankets, clothing for mild/warm weather, clothing for cold weather, heating devices, gas/electric stove, water storage containers (water tank, jerry cans, etc.), kitchen items (pots, plates, cups, etc.), cooking fuel, personal hygiene items (e.g. sanitary pads, toothbrushes, etc.), house cleaning materials (e.g. detergents, towels, etc.)

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				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?)	Don't know Prefer not to answer	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 at the workplace)	Living at workplace Housing provided by smuggler Being hosted for free (not including by employer) Squatting (without consent of owner)
% of respondents threatened with eviction from current shelter, by reason	Have you experienced eviction or the threat of eviction within the past 6 months?	Don't know Prefer not to answer	No No, but I am afraid it might happen soon No but I know someone in this area who has been evicted	Yes, have been threatened with eviction verbally Yes, have been threatened with eviction in written form Yes, have been evicted

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

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Health

Critical indicator

Indicator	Question	Severity rating				
		NA	None/Minimal	Stress	Severe	Extreme
		NA	1	2	3	4
% of individuals with access to public and private health care	During the last 6 months, did you have a health problem and needed to access health care (including mental health services)? If you needed to access healthcare in the past six months, were you able to obtain health care when you felt you needed it?	Don't know Don't want to answer	Did not need healthcare	Needed to access healthcare and was able to access it	Needed healthcare AND Was not able to access it	

Non-critical indicators:

Indicator	Question		Classification	
		NA	No need	Need
		NA	0	1

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% of respondents with access to public and private health care	If you 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? Note: a person who can physically access a facility but would not go there because unable to pay or scared of arrest should not considered as having access to it	Don't know/ don't want to answer	Access to public hospital, Private clinic, NGO clinic, Mental healthcare, Private practitioner and pharmacies	No access to any options listed under 'no need (traditional healer, none of the abive)'
% of respondents that can access primary health care within one hour using their normal mode of transportation.	How long (in minutes) does it take you to reach the nearest functional healthcare facility (including clinics, hospitals), using your normal mode of transport?	Don't know/ don't want to answer	1 hour or less	Strictly more than one hour

Non-critical indicators: LSG severity			
	None/minimal	**Stress**	**Severe**
Sum of non-critical indicator scores	0	1	>1

Education

Indicator	**Question**	**Severity rating**				
		NA	**None/Minimal**	**Stress**	**Severe**	**Extreme**
		NA	**1**	**2**	**3**	**4**

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% of households with children not enrolled and/or not attending	1) For the 2021-2022 school year, how many school-aged children (6-17 years) in the household were enrolled/registered in formal school?	Don't know Don't want to answer	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	How many school-aged children in the household dropped out of school in the previous year? Dropped out means a child was enrolled during the previous school year 2020-2021 and not enrolled during the current school year 2021-2022	Don't know/Don't want to answer	No children 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 **DO NOT INCLUDE** (Going or attending school is not safe for the child (violence, harassment or discrimination) ; Parents/caregivers not able to register or enrol children in the school due to lack of valid documentation; Child marriage or pregnancy Child has to work (contributes to household income))	At least one child having dropped out of school in the previous year AND Reasons for dropping **DO INCLUDE** (Going or attending school is not safe for the child (violence, harassment or discrimination) ; Parents/caregivers not able to register or enrol children in the school due to lack

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						of valid documentation; Child marriage or pregnancy Child has to work (contributes to household income))

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 respondent is the respondent severity score. See indicator matrix below.

Indicator	Question	LSG Severity			
		None/Minimal	Stress	Severe	Extreme
		1	2	3	4
% of respondents 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 engaged in degrading or illegal income activities (e.g. theft, smuggling)
	Spent savings	Reduced expenses on health (including drugs)	Asked money from strangers
	Borrowed money	Work in exchange of food	Sold house or land
	Bought food items on credit		

Pre-existing vulnerability (PEV) score

The PEV score for refugees and migrants is calculated as a binary, based on the number of vulnerability indicators that the respondent meets. It is essentially a simplified non-critical indicator approach.

PEV indicators:

Indicators	Questions	Classification		
		NA	No need	Need
		NA	0	1
% of respondents relying on unstable forms of income	What is your main source of income?	Don't know / don't want to answer	Income above LBY poverty line (5.50 USD/day)	No income/ Income below LBY poverty line (5.50 USD/day)
respondent's 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?	Don't know / don't want to answer		

% of respondents reporting having cumulated debt during the previous 3 months	Have you accumulated debt from any of the following sources during the past 3 months?	Don't know / don't want to answer	No	Yes (any sources)
% of respondents reporting having access to support networks	If you were to experience a serious problem (e.g. you were abused, someone robbed you, you were evicted, you could not access services for fear of arrest), who would you resort to for support and help?	Don't know / don't want to answer	Any other options	No one could help me/friends or family in my country of origin
% of respondents unable to use Arabic for daily communication	What languages do you feel comfortable to use for daily communication?	Don't know / don't want to answer	Arabic	Not Arabic
% of respondents reporting travelling to Libya alone	Did you travel to Libya alone or with other people?[31]	Don't know / don't want to answer	Any other options	With strangers
Respondents' reported reasons for migrating to Libya, by %	Why did you decide to come to Libya?	Don't know / don't want to answer	Any other options	Conflict/Persecution

PEV Indicators Classification		
	No PEV	**PEV**
Sum of indicators	<2	>=2

Annex 14: Estimating overall severity of needs

The MSNI is a measure of the respondent'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 respondent.

[31] Answer options included: alone, with members of my family, with friends or acquaintances with strangers. Respondents were considered as vulnerable according to this indicator if they listed "With strangers" as one of the options.

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The MSNI is determined through the following steps:

1) First, the severity of each sectoral LSGs is calculated per respondent, as outlined in Annex 1.

2) Next, a final severity score (MSNI) is determined for each respondent based on the highest severity of sectoral LSGs identified in each respondent.

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

Figure 2 Examples of MSNI scores per respondent 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 respondent has a very severe LSG in just one sector (e.g. WASH for HH2 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 respondent 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 respondents.

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