Annex: Methodology

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Specific objectives and research questions

The 2022 Multi-Sector Needs Assessment in Lebanon was conducted to analyze the demographics, multisectoral humanitarian needs, service access, and displacement dynamics of Lebanese, migrants, and PRL populations living in Lebanon; to contribute to a more targeted and evidence-based humanitarian response. While multisectoral data on refugee households is collected yearly through the Vulnerability Assessment of Syrian Refugees in Lebanon (VAYsR), important information gaps remain for Lebanese, PRL and migrant households.

To address this gap the multi-sector needs assessment (MNSA) sought to answer the following research questions:

- o What is the character of multi-sectoral humanitarian needs across Lebanon?

- o What is the magnitude, scope, and severity of humanitarian needs across specific sectors, including shelter, education, food security, health, livelihood, protection, and WASH, in Lebanon?
- o To what extent do households have inter-sectoral needs and what are the most common overlapping needs?
- o How do findings differ according to geographic area, population group - Lebanese, migrant, and Palestine Refugees in Lebanon (PRL) households (HHs) -, and vulnerability profile (age, gender, and disability) of households?

Scope

The 2022 MSNA is a nationwide, household-level assessment composed of primary data collection and secondary data review. Primary data collection consisted of a household-level survey conducted across almost the entirety of Lebanon, inclusive of 25 out of 26 Cadastres (the official administrate level 3

boundary for Lebanon). One district was not accessible during the data collection of Lebanese HHs specifically due to constraints related to the security of REACH and partners' enumerators: Nabatiyeh.

Three population groups were considered in the 2022 REACH MSNA: Lebanese HHs, in-camp PRL HHs, and migrant HHs. While other needs assessments exist to evaluate the needs of Syrian Refugees in Lebanon (SRL)[1], very little information is available for Lebanese, PRL, and migrants, making the operational response to existing vulnerabilities difficult to implement. The need for information-based strategies at the national and regional level resulted in the selection of these 3 population groups within this MSNA, in coordination with UNOCHA, IOM, and UNRWA.

The MSNA included a cross-sectoral demographic section and Accountability of Affected Populations (AAP) alongside separate sectoral sections for

- Food security
- Livelihoods
- WASH
- Education
- Protection, including general protection, Washington group indicators, child protection, and gender-based violence (GBV)[2].
- Shelter
- Health
- Nutrition

Map 1. Assessment coverage
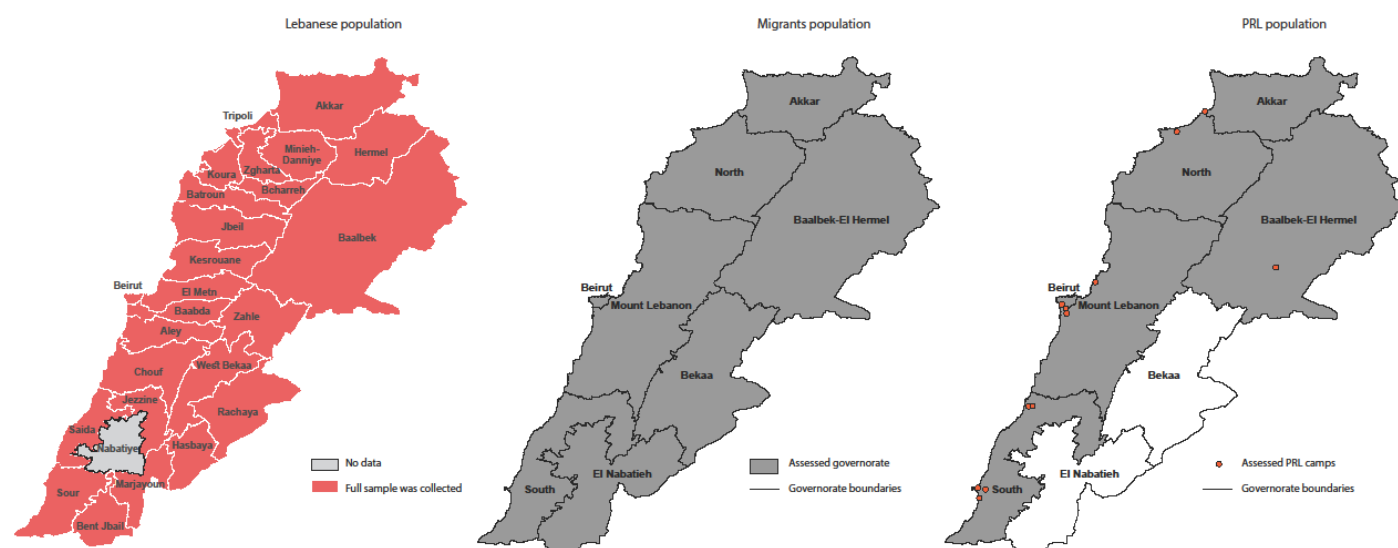
Sampling strategy and data collection

For Lebanese HHs, REACH aimed for results to be statistically representative at a **95% confidence level and a +/- 10% margin of error** across the 26 strata, using a 2-stage cluster sampling methodology. The sample was stratified according to geography (the 26 districts of Lebanon)..

For migrant HHs, REACH coordinated closely with IOM to obtain statistically representative results at a **95% confidence level and a +/- 10% margin of error** across the 8 strata, using a 2-stage cluster sampling methodology. The sample was stratified according to geography (8 governorates of Lebanon). The final sampling frame was generated using data from the most recent Migrants Presence Monitoring (MPM) data collection exercise implemented by IOM between mid-June and mid-July 2022.

For PRL HHs living in camps, REACH aimed for results to be statistically representative at camp-level with a **95% confidence level and a +/- 10% margin of error**, using a stratified random sampling methodology. REACH identified, using remote sensing, the camp's border. A total target of surveys (590) was distributed proportionally to the size of population across the 12 PRL camps in Lebanon, located in 6 governorates **(there are no PRL camps in Bekaa and Nabatieh governorates).**

In total, 5,659 surveys were conducted in-person, through face-to-face interviews, disaggregated as follows:

Table 1. Total number of surveys by population groups and date of data collection[3]

Number of HHs surveys		Date of data collection
Lebanese HHs	3,944	27/7/2022 – 26/11/2022
PRL HHs	590	27/7/2022 - 4/10/2022
Migrants HHs	1,125	27/07/2022 - 4/10/2022

The data collection for all three targeted population groups was conducted through an ODK/KOBO tool, with specific constraints applied for PRL and/or migrant HHs specific questions. Arabic translations were directly included in the KOBO tool. The questionnaire was collected by a pair of enumerators, mostly male/female. In addition, four regionally specific trainings were organised by REACH Initiative; enumerators from REACH and all partners were providing training on the MSNA data collection procedures, standards, and tools (such as the questionnaire), as well as sharing special considerations related to 'Do No Harm', complaint response mechanisms (CRM), and prevention of sexual exploitation and abuse (PSEA).

In July before actual data collection, a two-day pilot was conducted in all governorates. The purpose of the pilot was primarily to test data collection tools and the MSNA questionnaire.

Data was cleaned continuously throughout the data collection period to ensure both data quality and data protection. The cleaning was done conjointly by the REACH GIS officer and the REACH database officer, to ensure both data quality and data protection. While REACH conducted a first round of cleaning

for data collected by data collection partners, the anonymised Excel file was then transmitted to those partners for inputs and additional corrections.

GPS methodology

For Lebanese and PRL surveys requesting GPS points, the GIS team prepared an adequate buffer of GPS points to account for the possibility that an interview could not be conducted with the initially selected point. It happened for instance when a household refused to participate in the survey, was not home, withdrew from the survey, or did not belong to the population of interest. In this case, enumerators proceeded to the backup geo-point prepared. When there was no eligible household at this point or the household opted to not participate, enumerators attempted to interview with the next nearest household within the pin radius, either an adjoining shelter or a separate floor and apartment unit in the instance of multi-story shelters.

COVID-19 related adaptation measures

To ensure enumerators' safety while collecting data during the MSNA 2022, REACH implemented several adaptation measures. First, enumerators were provided with masks and hydro alcoholic gel for reducing the risks of contamination when conducting face-to-face interviews. In addition, only two enumerators were in each vehicle, to limit the risk of transmission within the enumerators' team during the trips.

Analysis

The analysis presented in this bulletin is based on a methodology developed by REACH at the global level to analyse the extent and severity of household needs and to capture the cross-sectoral dimension of these needs. This analysis aims to identify households with unmet needs by sector and/or pre-existing vulnerabilities. It then calculates the proportion of households considered to have multi-sectoral needs by area and by group.

Definitions of key terms:

- Living Standard Gap (LSG): means an unmet need in a given sector, where the LSG severity score is 3 or more.
- Pre-existing vulnerabilities: the underlying conditions or processes that influence the degree of shock and affect household exposure, vulnerability or capacity, which could subsequently exacerbate the impact of a crisis on those affected by the vulnerabilities.
- Severity: refers to the "intensity" of need, on a scale of 1 (none/minimal) to 4+ (extreme+).
- Magnitude: refers to the overall number or percentage of households with needs.

The severity scale is based on the draft Joint Inter-Sectoral Analysis Framework (JIAF)[3], an analytical framework being developed at the global level to better understand the needs of affected populations. It measures a progressive deterioration in a household's situation toward the worst possible humanitarian outcome (Figure 1). While the JIAF severity scale includes 5 classifications ranging from 1 (none/minimal) to 5 (catastrophic), a scale of 1 (none/minimal) to 4+ (extreme+) is used for MSNA purposes. A score of "4+" is used when the data indicate that the situation could be catastrophic. This is because the data needed to assign a score of 5 (catastrophic) is primarily obtained at the area level (e.g., mortality rates, prevalence of malnutrition, etc.), which is difficult to account for in a household-level analysis (technical preparedness, additional resources, etc.).

LSGs for a given sector are calculated by aggregating indicators of unmet needs by sector. For the 2022 MSNA, a simple aggregation methodology was developed, based on the global Multidimensional Poverty Index MPI) aggregation approach. Using this method, each unit (e.g., a household) is assigned a "deprivation" score based on its deprivations in the indicators that comprise it. The deprivation score for each household is obtained by calculating the percentage of deprivations experienced, meaning the deprivation score of each household is between 0 and 100. The method is based on categorizing each indicator on a binary scale has a gap ("1") / does not have ("0") a gap. The threshold at which a household is considered to have a particular gap is determined in advance for each indicator. The 2021 MSNA aggregation methodology, detailed below, can be described as "MPI-like," and uses the steps of the MPI approach to determine a needs severity score, with the addition of "critical indicators" that determine the highest severity scores. The section below provides guidance on how to perform the aggregation using household-level data.

Figure 1. LSGs identification by sector
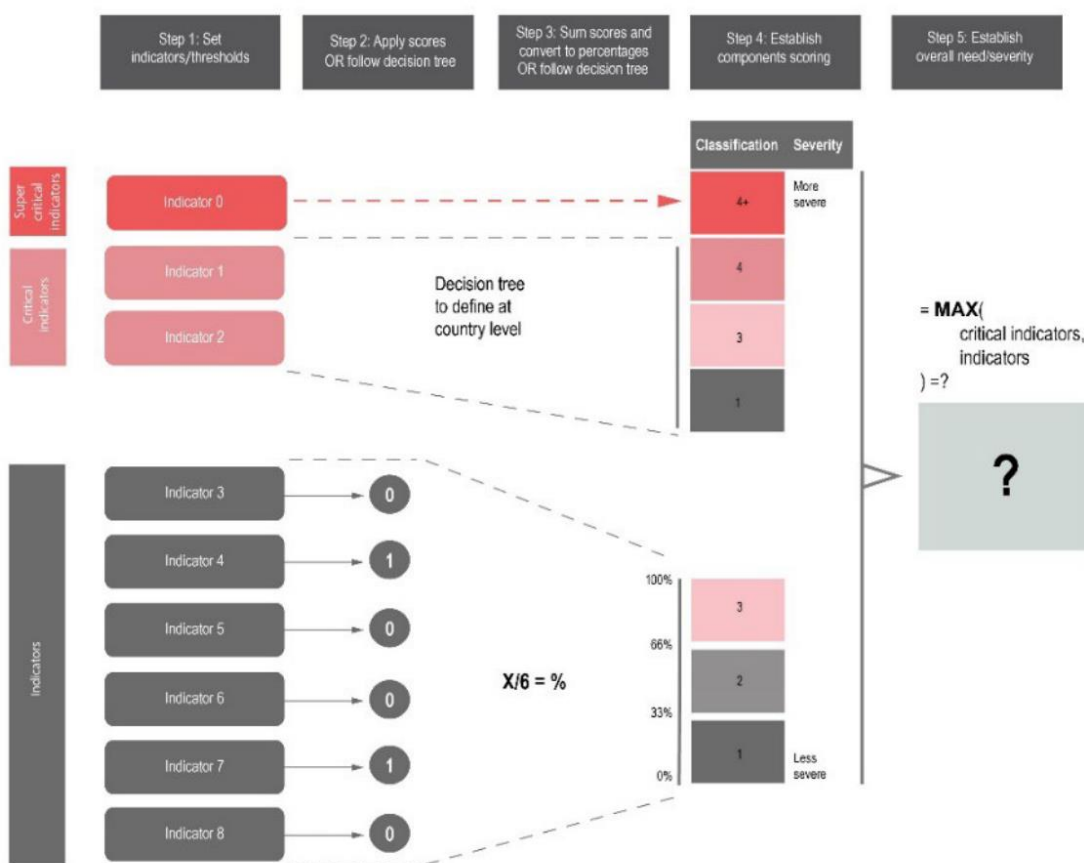
- Identify indicators that measure need for each sector, capturing the following key dimensions: accessibility, availability, quality, use and knowledge. Set binary thresholds: has ("1") / does not have ("0") a gap;
- Identify critical indicators that, on their own, indicate a gap in the sector generally.
- Once data is collected, identify individual indicator scores (0 or 1) gap. Each household;

- Calculate the severity score for each household, based on the household decision tree (adapted to each sector);
    - o "Super" critical indicator(s): may lead to a 4+ if an extreme situation is found for the household.
    - o Critical indicators: using a decision tree approach, a severity class is identified on a discontinuous scale of 1 to 4 (1, 3, 4) according to the scores of each of the critical indicators.
    - o Non-critical indicators: the scores of all non-critical indicators are summed and converted to a percentage of the possible total (e.g., 3 out of 4 = 75%) to identify a severity a severity class.
    - o The final severity score is obtained by taking the highest score generated by the supercritical, critical, or non-critical indicators, as shown in Figure below.

- Calculate the proportion of the population with a final severity score of 3 and above, by sector. Having a severity score of 3 and above in a sector is considered **having an LGS in that sector**.
- Project percentage results onto the population data that were used to construct the sample, with accurate weighting to ensure the best representativeness.

The Multi-Sector Needs Index (MSNI) is a measure of the overall severity of a household's humanitarian needs (expressed on a scale of 1 to 4+) **based on the highest LSG severity score identified within each household**. The MSNI is determined through the following steps:

1) First, the severity of each of the sectoral LSGs is calculated per household, as illustrated above.

2) Then, a final severity score (MSNI) is determined for each household based on the highest sectoral LSG severity score identified for each household.

As shown in Table 1 below, Household 1 (HH 1) has a final MSNI of 4 because it is the highest severity score of all LSGs within that household.

Table 1 : HHs' MSNI score example, based on LSG results.

	LSG severity score by sector							MSNI final
	Food security	Livelihood	WASH	Health	Shelter	Education	Protection	
HH 1	4	4	4	4	3	3	2	4
HH 2	2	3	2	4	2	1	1	4
HH 3	3	3	1	3	4+	1	1	4+
Etc.	2	3	2	1	1	2	3	3

The MSNI captures multi-sector needs from a global perspective. **The final MSNI score is therefore the same whether the household has an LSG in one sector or several concurrent LSGs in different sectors.** For example, in the Table above, the final MSNI score will be the same (4) for the household that has a very severe LSG in one sector (in health for HH 2) as for the household that has several concurrent LSGs in different sectors (in food security, health, WASH, and livelihood for HH 1). While this method is relevant from the point of view of humanitarian response planning at the global level (if a household has

extreme needs in a sector, this implies the implementation of a humanitarian intervention regardless of the concomitance of sectoral needs), **additional analyses need to be conducted to understand the differences in the magnitude of severity between different households**.

Secondary data

Secondary data was provided by Emergency Operations Center (EOC) members to inform the MSNA analysis. Moreover, REACH gathered additional secondary data to complement EOC existing studies. It also organised external engagements with the following sectors to discuss the MSNA results: Education, Shelter, Food security, Health, Protection (including child protection and GBV), Livelihoods, and WASH sectors. During these discussions, REACH presented the MSNA results, and actors identified trends, discrepancies with other available data when existing, and underlying dynamics and factors of vulnerabilities.

Ethical considerations

Field officers and enumerators received training to introduce the organization's zero-tolerance policy on protection from PSEA. The training was also provided on the protection of minors (including the prohibition on interviewing children under the age of 18). In addition, all the MSNA tools were reviewed and implement according to the Do No Harm principles.

Because data collection took place in the context of the COVID-19 pandemic, enumerators were also trained in barrier procedures and conducted all assessments with a distance of at least 1.5 meters from the interviewee, wearing a mask. REACH also ensured there would be only one team per vehicle, meaning a total of three persons per vehicle, driver included. Enumerators were also provided with hand sanitiser to use before and after each interaction with respondents.

In each region of interest, REACH recruited field officers to act as team leaders who were familiar with the area of investigation, to allow for culturally adapted communication with households and local stakeholders. Survey teams were recruited to meet the same criteria.

Limitations and challenges

- **Proxy reporting:** Data on the individual level was reported by proxy by one respondent per household, rather than by the concerned individual household members themselves, and therefore might not accurately reflect lived experiences of individual household members, who also might be more vulnerable.
- **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 different MSNA outputs.
- **Respondent bias**: Certain indicators may be under or over-reported due to the subjectivity and perceptions of respondents. For instance, respondents might tend to provide what they perceive or believe others, such as employers, to perceive as to be the "right" answers to certain questions (i.e., social desirability bias, social taboo bias[4], constraint for migrants to report on some vulnerabilities

when being surveyed in their employers' home in their presence, etc.). In addition, there was a high some high-income areas, so findings are not representative for them.

- **Limitations of household surveys**:
    - o While household-level quantitative surveys seek to provide quantifiable information that can be generalised to represent the population groups of interest, the methodology is not suited to provide in-depth explanations of complex issues. Thus, some questions on "how" or "why" are best suited to be explored through qualitative research methods.
    - o Since "households" are the unit of analysis, intra-household dynamics (including for instance intra-household power relations across gender, age, disability) cannot be captured. Users are reminded to supplement and triangulate household-level findings with other data sources. Similarly, community-level indicators, such as GBV indicators, may be biased because those indicators were analysed on an individual level.
    - o The methodology used to select HHs could contribute to an under-representation of HHs without a shelter within the assessment[5].
    - o During data collection, high income areas had a disproportionately high non-response rate. This might have an impact on the MSNA results, through a potential over-representation of low and medium-income HHs in these specific areas.
    - o HHs level surveys do not capture the situation directly in health services, nor the geographical uses of health services. Similarly, the integration of supply side-related issues and bottlenecks that can pose barriers to accessing basic services, such as education, was limited due to the nature of the assessment.

- The unavailability of data for a specific population group, especially when it is vulnerable and hard-to-reach, does not mean this population group is not present in the country and does not have important needs. For instance, while the MSNA was not able to capture sufficient data on LGBTIQ+ head-households or households with LGBTIQ+ persons to be reliable, these results should not be interpreted to suggest they do not exist or do not have specific and diverse vulnerabilities in Lebanon. Similarly, migrant live-in workers may present significant vulnerabilities which are not presented in the Bulletin.
- **Geographic coverage**: National and regional results are not indicative of the situation for the Lebanese population living in El-Nabatiyeh as this districts were not covered by the assessment due to access constraints during the data collection
- **GPS points:** In Baalbek-El Hermel, South, Dahye and El Nabatiyeh governorates, REACH and partners' enumerators were not allowed to collect GPS points at the end of the survey. Therefore, no control of GPS point locations was possible during the data cleaning for these four governorates, which limited our capacity to geospatially monitor the data collection in these specific areas.

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[4] The question has been discussed with shelter experts in Lebanon, but no conclusive suggestions were found to minimize this bias.