

2022 MSNA METHODOLOGY OVERVIEW: UKRAINE

1. Specific objectives and research questions

The 2022 Multi-Sector Needs Assessment in Ukraine was conducted to analyse the demographics, multi-sectoral humanitarian needs, service access, and displacement dynamics of populations living in Government Controlled (GCA) and Conflict-Affected Areas (CAA) of Ukraine; to inform the Humanitarian Response Plan (HRP) in 2023 and contribute to a more targeted and evidence-based humanitarian response.

To achieve this objective, the multi-sector needs assessment (MNSA) sought to answer the following research questions:

- What is the demographic breakdown of households (HHs) and displacement trends in surveyed areas?
- What are the essential needs of households related to Shelter and Non-Food Items (SNFI), Water Sanitation and Hygiene (WASH), Food Security, Education, Health, Livelihoods, and Protection?
- What are the patterns of incomes, expenditures, savings, and debts amongst different categories of households?
- What is the variation of humanitarian needs among different household demographics and vulnerable groups across the surveyed area, including displaced and nondisplaced households and rural and urban settled households?

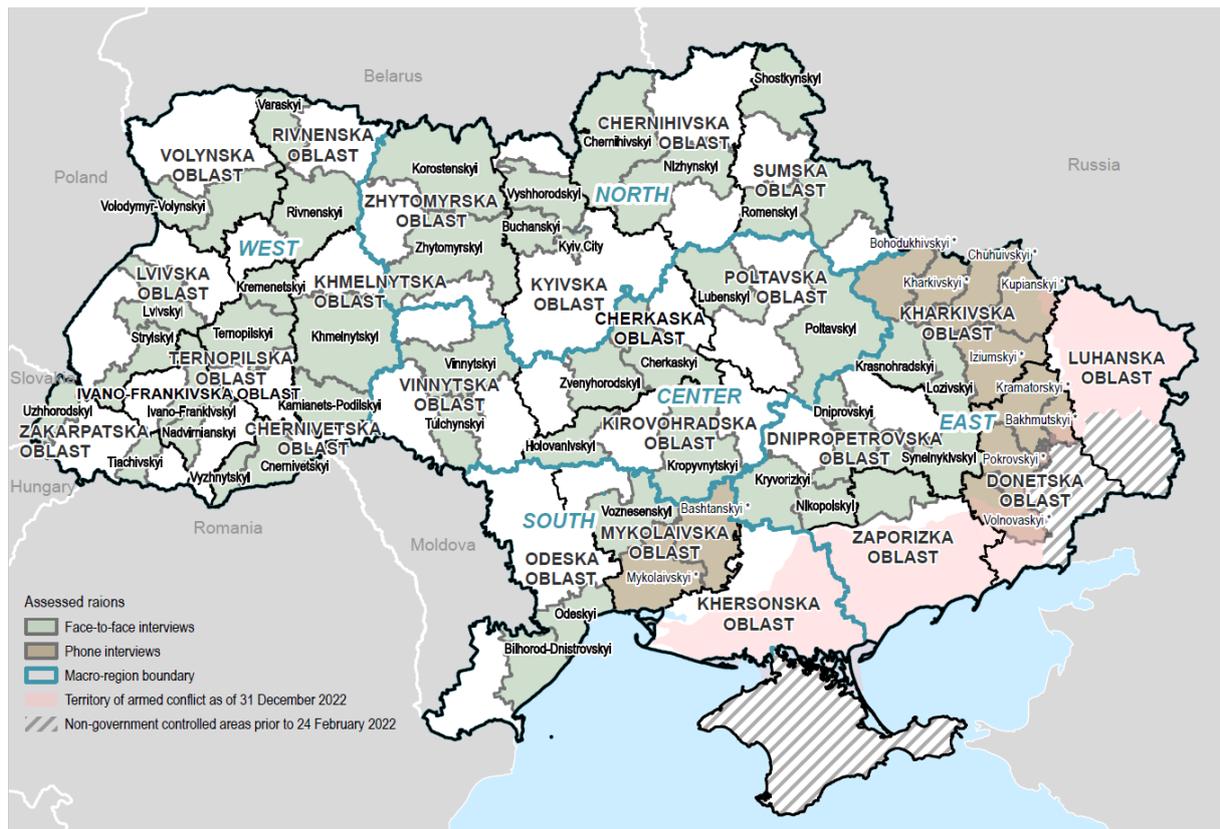
2. Scope

The MSNA was conducted with a country-wide coverage using a mixed-method approach in order to access both physically accessible, government-controlled areas (GCA) and less accessible conflict-affected areas (CAAs). In total, samples were collected in 43 out of 96 raions in GCA, and 11 out of 25 raions in CAAs.

The population of interest were internally displaced persons (IDPs), returnees as well as host communities that reside both in GCA and CAAs. The population groups to be included were discussed with humanitarian partners through cluster consultations and via the Assessment and Analysis Working Group (AAWG). This assessment did not directly target IDPs in collective sites as a specific population group. IDPs in sites are included in a separate IMPACT assessment, the Collective Site Monitor (CSM), that is focused on this group and uses a similar questionnaire.

The MSNA included a cross-sectoral demographic section and Accountability of Affected Populations (AAP) alongside separate sectoral sections for Education, Food Security, Health, Livelihoods, Protection, SNFI, and WASH.

Map 1: Assessment coverage



3. Sampling strategy

REACH's sampling approach for the face-to-face data collection in accessible areas was guided by the aim of increased targeting of data collection in areas directly affected by conflict, as REACH expected needs to be higher in these areas. Thus, more granular data with a higher level of precision in raions in the North, East, and South of the country (i.e., lower 5% Margin of Error) compared to areas in the Centre and West (higher 7% Margin of Error) was collected. In addition, in areas not directly affected by conflict ('Rest of GCA') the sampling approach aimed to gain insight into the needs of urban as well as rural communities. For this purpose, in each oblast of the 'Rest of GCA' two raions were selected: one with a predominantly (more than 50% of the total population) urban population and one with a predominantly rural population.

For the phone data collection in CAAs, the sampling was driven by the ability to conduct phone interviews in these areas within the given timeframe and with functional phone network. Using this criteria groups of raions were selected within the CAAs: Kharkivska, Donetsk, and Mykolaiivska oblasts (see the coverage map above).

The sampling approach allows for representative findings at the geographic level of the raion. Results disaggregated further by specific population groups (e.g., returnees, displaced and non-displaced populations) should be considered **indicative**. Likewise, aggregated findings at the oblast or macro-region level do not take into consideration the situation in raions not covered by data collection. Therefore, these too should be considered indicative rather than representative of the situation.

Data collection

Data collection tools for the face-to-face and phone components were aligned to the greatest possible extent, with the phone tool having some of the indicators excluded to limit the duration of a phone interview.

With the face-to-face data collection, that was conducted in the accessible areas, REACH collected 12,804 household (HH)-level interviews with the support of its own enumerators (data collection period 10 October - 4 November 2022). In inaccessible CAA areas, WFP conducted 645 HH-level phone interviews (data collection period 14 November - 21 December 2022).

After the final validation, the tools were translated into Ukrainian and Russian languages, and the questionnaire coding for use in KOBO was done. Piloting of the coded and tested questionnaire took place on 8-12 October for the face-to-face component.

Enumerators were trained prior to data collection in the use of KOBO as well as interviewing techniques, phrasings for standard indicators, and protection issues for vulnerable populations. Training on protection from sexual exploitation and abuse (PSEA) and accountability to affected populations (AAP) was also conducted separately. Enumerator team leaders were instructed to seek to brief local authorities on REACH and the assessment when arriving in a remote settlement. Enumerators were required to monitor their health and well-being at the start of each day and report any interactions with members of the public who appeared unwell.

In addition, due to the heightened security situation in Ukraine, REACH has adapted its personal safety and security in the training and included first aid training, training on behaviour during air raids, as well as landline and unexploded ordinance (UXO) training. In addition, WhatsApp communication channels were used to monitor the movement of enumerators during data collection, who remained in close contact with the ACTED security team through their relevant Field Officers.

In alignment with IMPACT data protection policies, all raw data collected was stored on the IMPACT HQ Server, with one member of the country team having access to work with the dataset. Data collected via phone was stored on WFP servers and a data sharing agreement (DSA) has been signed between IMPACT and WFP to allow joint cleaning and analysis processes.

4. Analysis

The REACH MSNA analysis method was developed internally by REACH. The analysis is intended to provide an overall, cross-sectoral understanding of vulnerabilities among conflict-affected populations of Ukraine, their most pressing needs, and the severity of needs. The analysis relies on two core components: the living standard gap (LSG) and the multi-sectoral needs index (MSNI). Through these composite indicators, respondents are divided into different severity ratings, which classify their overall severity of humanitarian needs, from 1 ('None/Minimal') to 2 ('Stress'), 3 ('Severe') and 4/4+ ('Extreme and Extreme +').

The core analytical elements can be defined as follows:

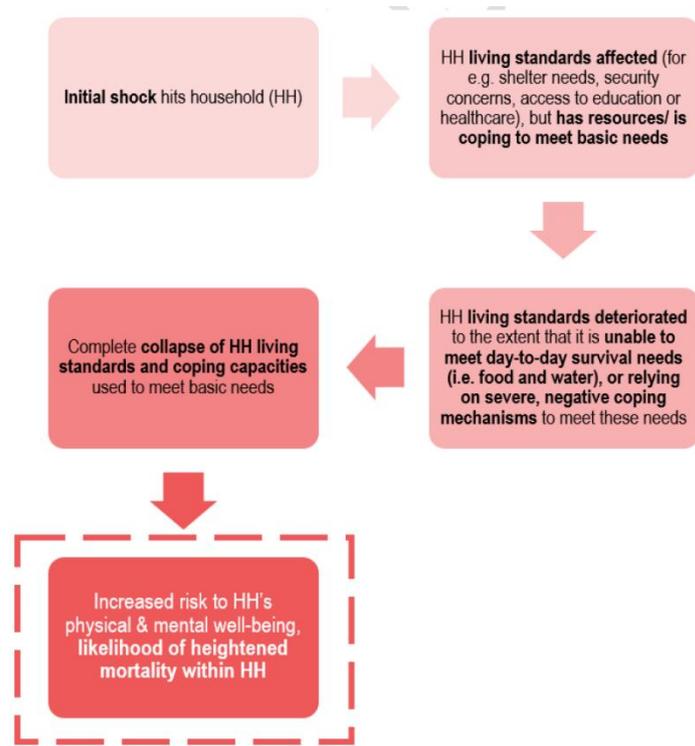
- **Living Standard Gap (LSG):** signifies an unmet need in a given sector where the LSG severity score is 3 ('Severe') or higher.
- **Capacity Gap (CG):** signifies that negative and unsustainable coping strategies are used to meet needs. Respondents not categorised as having an LSG may be maintaining their living standards by using negative coping strategies.

- **Pre-existing vulnerabilities:** the underlying processes or conditions that influence the degree of the shock and influence exposure, vulnerability, or capacity, which would subsequently exacerbate the impact of a crisis on those affected by the vulnerabilities.
- **Severity:** signifies the “intensity” of needs, using a scale that ranges from 1 ('None/Minimal') to 4/4+ ('Extreme and Extreme +').
- **Magnitude:** corresponds to the overall number or percentage of respondents in need.
- The **MSNI** is a measure of the respondent’s overall severity of humanitarian needs across sectors (expressed on a scale from 1 to 4/4+), based on the highest severity of sectoral LSG severity scores identified in each 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 the understanding of the needs of affected populations. The framework measures the progressive deterioration of a household’s situation toward the worst possible humanitarian outcome. While the JIAF severity scale includes 5 severity 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. The fifth tier, indicating catastrophic needs, is not used in the MSNA because the type of data that is needed for this classification is primarily at the area level (e.g. mortality rates, malnutrition prevalence, burden of disease), which is difficult to factor into respondent or individual level analysis.

Based on the severity scale, LSG scores were then produced by aggregating unmet needs indicators per sector. For the 2022 MSNA, a simple aggregation methodology was identified, building on the Multi-Dimensional Poverty Index (MPI) aggregation approach. Using this method, each respondent was assigned a “deprivation” score according to their 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. In addition to the binary indicators, ‘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 thresholds used to determine whether a respondent was considered to have an LSG or not were determined in advance for each sector within the LSG Indicators Framework developed by REACH in consultations with Ukraine’s Humanitarian Clusters and Sub-Cluster Coordinators, World Food Program and various Working Groups operating in the country.

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 household. Based on the severity of each of the sectoral LSGs calculated per household, a final severity score (MSNI) is determined for each household based on the highest severity of sectoral LSGs identified. Regardless of whether a household has a very severe LSG in just one sector or co-occurring severe LSGs across multiple sectors, their final MSNI score will be the highest. The MSNI approaches multi-sectoral needs from a big-picture perspective. While this approach makes sense from a response planning perspective (if a respondent household has an extreme need in even one sector, this may warrant humanitarian intervention regardless of the co-occurrence with other sectoral needs), additional analysis should be done to understand such differences in magnitude and severity between households.

Figure 1: Rationale behind the severity scale



The product of the MSNI is the MSNI Bulletin, an output which includes the overall percentage of households according to their severity of needs by geographical area and population group. The MSNI Bulletin also presents key humanitarian needs and their drivers by geographical area and demographic profile. Finally, it shares population perceptions of priority needs, preferred communication channels, satisfaction with aid and preferred assistance modalities as well as barriers to assistance.

5. Secondary data

Secondary data was used at the assessment design stage as well as for the triangulation of analysis results. In particular, 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 the analysis and thereby findings for the final output production. The main sources included: IOM-DTM General Population Survey (GSP), Baseline and Returnee reports, UN OCHA's Ukraine Situation Reports throughout 2022, and various sectoral and intersectoral assessments published by UN agencies, INGOs, think tanks, national institutions, and media outlets. For more information, please refer to the ToR.

6. Ethical considerations

Within the general approach used by REACH, the ethical implications of data collection and information dissemination were considered and investigated:

- To adhere to the "do no harm" principle, REACH conducted a "do no harm" analysis during the design phase. All questions in the tools were assessed against IMPACT Initiatives' Standard Operating Procedures on Personally Identifiable Information.

- All necessary personally identifiable data collected was not shared with external partners and access to the information was restricted within REACH. Any other personally identifiable information was deleted before the publication of the dataset.
- All data collection components required informed consent from the respondent. A script was presented to all respondents outlining the nature and purpose of the assessment and emphasizing the voluntary basis of participation.
- All respondents were provided with the Complaints and Feedback Mechanism (CFM) phone number managed by ACTED.
- Finally, the outputs for the quantitative component were translated into Ukrainian, to allow for better dissemination to partners operating in the country.

7. Challenges and limitations

- Remote data collection: due to access issues, part of the data collection for the 2022 MSNA was conducted over the phone. This created some challenges and limitations:
 - 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 immense internal and external displacement since February 2022 and the scarcity of these dynamic population figures, it is likely that some of the population groups were underrepresented in the survey.
- The **purposive selection of raions for data collection**, and the prioritisation of raions in areas that are closer to the conflict may have had an impact on the demographic breakdown of the country-wide sample. Therefore, we recommend against using the MSNA data to make inferences on the prevalence of specific population groups in areas not covered by data collection.
- **Gender disaggregation:** Given a lack of available updated population data on gender disaggregation and the used sampling approach, any gender disaggregation is to be considered indicative only.
- **Underrepresentation of protection concerns:** While the multi-sectoral questionnaire included a section dedicated to protection, including access to documentation and safety and security concerns, for areas where the survey was administered via phone it is not equipped to fully capture protection concerns, which are therefore likely to be under-reported.
- **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 expenditures) 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.

- **Geographical coverage:** data collection focused on raions that were manually selected within each oblast. As not all raions in Ukraine were covered, comparison between locations in the country is limited.

Annex 1: Terms of Reference, dataset and LSG Framework

The Terms of Reference document is published [here](#).

Public dataset is published [here](#).

LSG Framework is available upon request.

Annex 2: Estimating overall severity of needs

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

The MSNI is determined through the following steps:

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

- As shown in the example in Figure 3 below, household (HH) 1 has a final MSNI of 4 because that is the highest severity score, across all LSGs within that household.

Figure 3: Examples of MSNI scores per household based on sectoral analysis findings

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

Key limitation: regardless of whether a household has a very severe LSG in just one sector (e.g. WASH for 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 household has an extreme need in even one sector, this may warrant humanitarian intervention regardless of the co-occurrence with other sectoral needs), additional analysis should be done to understand such differences in magnitude of severity between households. To do that, additional analysis outputs have been produced, as shown on page 3.

Annex 4: Enumerators Training Agenda

Face-to-face – Lviv, Chernivtsi, Kropyvnytskyi, Vinnitsia, Odessa, Dnipro, Kyiv, **Oct 3-5, 2022**

DAY 1 - 03/10/2022 training

Time	Topic	Conducted by	Comments
9.30 – 10.00	Coffee break	Is covered	
10.00 -11.30	ACTED Policies and Procedures Code of Conduct	HR team - Mariia ROTAN (HR Officer, Kyiv)	Remotely for all locations
11.30 -13.00	Security	Security team - Oleksandr MINIALYK (Security Officer, Odesa)	F2F Odesa, remotely for other locations
13.00 - 14.00	Launch	Is not covered	
14.00 -16.00	First Aid session, part 1	External trainer	*Dnipro – part of the teams because of quantity of people
16.00 – 16.15	Coffee break	Is covered	(2d part on the 5th 2-6pm)
16.15 – 18.00	First Aid session, part 2	External trainer	F2F to all locations

DAY 2 – 04/10/2022 training

Time	Topic	Conducted by	Comments
09.00 - 09.30	MSNA Introduction, purposes, methodology	AO team - Mustafa OSMANOV (Research Manager)	F2F Kyiv, remotely for other locations
09.30 – 11.30	Reviewing a questionnaire	AO team - Mustafa OSMANOV (Research Manager)	F2F Kyiv, remotely for other locations
11.30 – 11.45	Coffee break	Is covered	
11.45 - 13.00	KOBO Tool, access to work account, downloading questionnaire, testing	GIS team/DATA team - Ivan PEREKREST (GIS Officer)	F2F Lviv, remotely for other locations
13.00 – 14.00	LUNCH break	Not covered	
14.00 – 15.00	GIS session, points, downloading & reviewing daily reports	GIS team/DATA team - Ivan PEREKREST (GIS Officer)	F2F Lviv, remotely for other locations
15.00 – 16.00	Testing all forms, Q&A	FOM, FOs/TLs	
16.00 - 16.45	Coffee break	Is covered	
16.45 - 17.45	Testing all forms, Q&A	FOM, FOs/TLs	
17.45 -18.00	Q&A, home task	FOs - Yuliia LOMAKINA, Tetiana KOVALCHUK (Field Officers)	remotely

DAY 3 – 05/10/2022 training

Time	Topic	Conducted by	Comments
09.00 - 10.00	Discussion of home task	DATA team/FOs	remotely
10.00 - 11.30	Working cycle (field work, daily documentation and reports, movement planning, timing, SOP on COVID-19, etc., Wats App Sec)	FOM, FOs/TLs	F2F in each location
11.30 – 11.45	Coffee break	Is covered	
12.00 – 16.00	Pilot in the fields	Field teams	*Dnipro – part of the teams has FA training session from 2-6pm
16.00 – 16.15	Coffee break	Is covered	
16.00 – 18.00	Discussion after piloting	FOs, TLs	

Annex 5: Processing of expenditure data and computation of the Economic Capacity to Meet Essential Needs (ECMEN) in Food Security LSG (this section developed by WFP)

Details on the ECMEN methodology can be found in the WFP ECMEN guide ([link](#)).

All expenditure and other monetary variables mentioned in this document are intended to be expressed in per capita terms. As the initial data cleaning process necessitated a different approach to outlier adjustment (outliers' detection on HH level, and replacing outliers to NA), before the ECMEN calculation, outliers were restored from the cleaning log.

Food expenditures

Ideally, the value of household food consumption should be estimated through disaggregated questions on the value of food purchases and consumption from own production for different food categories.

The food consumption estimate obtained from such a disaggregated module is normally expected to be more accurate (and higher) than asking a single question on food expenditures. This is because respondents tend to neglect certain food items when they report on total food expenditures.

In both the face-to-face and the CATI questionnaires both a disaggregated food expenditure module (7-day recall period) and a single question on total food expenditure (30-day recall period) were included in the questionnaires. Please note that in face-to-face data, in Ukrainian and Russian versions of the questionnaire, the recall period for food expenditure was 30 days, thus, for CATI data, for the detailed food expenditure module, it is necessary to make a standard transformation from 7 to 30 days, while for face-to-face data this transformation is not necessary.

In the CATI dataset, food expenditures estimated through the disaggregated module were indeed substantially higher than the estimate obtained through the single question, as expected. However, that was not the case for the face-to-face data, where the estimate obtained from the disaggregated module was slightly lower than the estimate obtained through the single question. In addition, in the face-to-face, there was a high share of non-response to the questions on disaggregated food expenditure module.

Given the above, it was decided that for face-to-face data, food expenditure should be estimated using the single food expenditure question, which would provide a more accurate measure of the value of food consumption.

To preserve comparability across the two surveys (face-to-face and CATI), it was decided to do the same for the CATI.

In addition, to preserve the ECMEN methodology, according to which the food component of the household economic capacity aggregate should include, not only the value of food purchases, but also the value of consumed food from own production, it was decided to inflate the single food expenditure variable by a share that would reasonably approximate the share of the value of consumed own production in the total value of food consumption (i.e. the value of food purchases plus the value of consumption from own production).

Hence, for each household, the single food expenditure variable was increased using the median own production share of its raion of residence (to account for differences in the importance of own production across raions).

Treatment of extreme values

High values: To avoid having implausibly high values affecting the ECMEN estimation, the food expenditure aggregate computed using the procedure described above was capped at the 99th percentile (i.e., any value in the 99th percentile was replaced with the maximum value of the 98th percentile)

Non-response: First, it was assessed the extent of missing information on food expenditure in the sample (i.e., the share of the sample that did not report any food expenditure). Given that in the Ukrainian context it was considered implausible for a household not to have incurred in any expenditure on food in the 30 days previous to the interview, a decision had to be made between a) dropping the observations with no information on food expenditures; b) imputing.

This issue affected a non-negligible share of the sample, especially in the face-to-face data and in some specific raions. For this reason, it was decided not to drop the observations with missing information – to avoid estimating the ECMEN (and consequently food security based on CARI) based on a substantially restricted share of the sample, with potential introduction of bias due to non-respondents having different characteristics than the rest of the population. It was therefore decided to impute, replacing missing values with the median value in each raion.

Low values: Finally, implausibly low values were treated too. In the Ukrainian context, it was judged that any value of monthly per capita food expenditure below 500 hryvnia should be considered implausible. Hence, any value of the food aggregate below 500 was replaced by 500. This strategy was based on the assumption that, although implausible, a value below 500 would still be a signal of a household presenting very low food expenditures per capita.

Non-food expenditures

Variables used to compute non-food expenditure aggregate

Non-food expenditures were estimated based on the two disaggregated non-food expenditures modules (with 30-day and 6-month recall periods, respectively), following the latest ECMEN methodology. This implied that certain expenditure items were not included in the aggregate. These included expenditures for productive assets, transfers to other households (together with remittances), debt repayment, savings, and expenditures, mentioned under the category “other”.

Treatment of extreme values

High values: All the individual non-food expenditure variables were treated as described above.

Non-response: The same considerations and treatment described above was applied to the non-food expenditure aggregate.

Low values: Differently from food expenditures, it was considered plausible for households not to have incurred in any non-food expenditures in the 30 days prior to the interview. Hence, no treatment for low values was applied.

Expenditure aggregate: The food and non-food aggregates obtained following the procedures described in sections II and III were summed into an expenditure aggregate.

Deduction of cash assistance

Following the ECMEN methodology, the monthly value of cash assistance received by the humanitarian sector was deducted from the expenditure aggregate to obtain the household economic capacity aggregate.

The amount of cash assistance received by households was computed as the income that households reported to have received from NGO or charity assistance. As households were asked to report this value only if they had indicated NGO or charity assistance among their “main” income sources, it might be that for some households that received some cash assistance, this was not deducted from their expenditure, thus resulting in a slightly overestimated household economic capacity aggregate.

The latest ECMEN methodology recommends deducting cash assistance only for the share that it is estimated/assumed to be used by households for their consumption. For example, households might use part of their received cash assistance for investments, large infrequent expenditures, transfers to other households or debt repayment. The cash assistance used for these purposes should not be deducted from household expenditures.

This share was approximated by estimating the ratio between “non-consumption expenditures” (i.e., the expenditures items collected in the questionnaire but not included in the expenditure aggregate mentioned in III. a) and total household expenditures. The average ratio of “non-consumption expenditures” on total expenditure was estimated only on the subset of the population receiving cash assistance.

Finally, the value of received cash assistance to be deducted from the expenditure aggregated was reduced by this share (approximately 5 percent).

Minimum Expenditure Basket (MEB) and Survival Minimum Expenditure Basket (SMEB)

For computing the ECMEN, it was decided to align the MEB and the SMEB to the official values provided by the Ukrainian government:

MEB: 5,865 hryvnia, equal to the estimated latest factual value of MSL (released by the Ministry of Social Policy of Ukraine)¹, inflated by the latest CPI (Nov 2022)².

SMEB: 2,589 hryvnia, equal to the government’s MSL, according to the Law on the State budget for 20233.

Note that the government’s MEB include an allowance for items such as services of cultural institutions, repair services, furniture and home appliances. Expenditures in these items were not captured by the MSNA questionnaires. As such, using this MEB might produce slightly underestimated ECMEN figures.

For future, more precise, estimations of the ECMEN, it might be considered to reduce the value of the MEB proportionally to the value represented by these items, or it might be decided to ask information on these items in the questionnaires.

¹ [01.2022.pdf \(msp.gov.ua\)](#)

² [Макроекономічні показники \(bank.gov.ua\)](#)

³ [Про Державний бюджет України... | від 03.11.2022 № 2710-IX \(rada.gov.ua\)](#)

Annex 6: Processing of income and expenditure data for Livelihoods LSG analysis

Income

For income, households were asked to report disaggregated income values for each of the main income sources they indicated. There may therefore be unspecified income at the household level not included in the total.

If a household reported an income source as one of their 'main' incomes but no value for this income source, missing values were imputed with the medians of this income source for the raion. If no median was found at the raion level, then the oblast, macro-region, or national level was used until a value was found.

To avoid having implausibly high values affecting the income estimation, the income aggregate computed was capped at the 99th percentile (i.e., any value in the 99th percentile was replaced with the maximum value of the 98th percentile).

Thresholds for Livelihoods LSG Critical Indicator 2 (Income)

To identify and differentiate between more 'severe' humanitarian caseloads and more 'chronic' development caseloads, the Livelihoods LSG framework uses the MEB (5,865 hryvnias) and SMEB (2,589 hryvnias) thresholds to determine severity of livelihoods living standard gaps. The following livelihoods severity levels are therefore employed for the second critical indicator used in the Livelihood LSG:

1. None/Minimal = Income \geq MEB (5,865 hryvnias)
2. Stress = Income $<$ MEB (5,865 hryvnia) but $>$ SMEB (2,589 hryvnia)
3. Severe = Income $>$ SMEB (2,589 hryvnias)
4. Extreme = Income is 0 hryvnias (excluding government social benefits)

To note, income is defined as regular employment private or public sector salaried work; irregular employment private or public sector salaried work; informal employment; income from own business or commerce; income from renting out house, land or property; pension; government social benefits or assistance (e.g., disability allowance); remittances.

Expenditures

For expenditure, households were asked to report disaggregated expenditure values over a 30-day and 6-month period. Similar to the treatment of income data, missing expenditure values were imputed using the median at raion, oblast, regional, or national level. For very low figures, in alignment with the treatment of this data performed for the Food Security LSG missing values with the median value in each raion and values below 500 hryvnias were replaced with 500.

Thresholds for Livelihoods LSG Critical Indicator 3 (Expenditures)

The severity scale for expenditures data is based on the MEB value. The thresholds centre on whether

the sum of both short-term and long-term expenditures per month exceeds or falls below the following numbers:

1. None/Minimal = expenditures at 120% of the MEB (more than 7,038 hryvnias)
2. Stress = 120-100% (7,038 to 5,865 hryvnias)
3. Severe = 80-100% (4,692 to 5,865 hryvnias)
4. Extreme < 80% (less than 4,692 hryvnias).