



TECHNICAL NOTES

Technical notes

GRFC as a public good: Consultation, partnership and consensus

1 | PRELIMINARY WORK

Technical consultation

Senior Committee

(17 partner organisations)

- Reaffirm the partner organisations' engagement and responsibilities
- Confirm scope of the report
- Provide initial guidance
- Endorse country selection criteria
- Agree on date of release

Pre-selection of countries

FSIN and Food Security Technical Working Groups

- Identify qualifying countries according to the criteria for inclusion: assistance request, FAO-GIEWS monitor, or hosting refugee populations

Data gathering

FSIN and Technical Working Groups

- Identify and share relevant data and analyses pertaining year 2022.
- Engage with regional and country-level food security and nutrition specialists to try and fill data gaps

2 | RESEARCH, ANALYSIS AND PRODUCTION

Data endorsement

FSIN and Technical Working Groups

- Agree on criteria for endorsement of data/analysis
- Validate the reliability of the data source
- Identify and endorse peak acute food insecurity estimates for 2022
- Identify and endorse undernutrition data
- Identify and endorse displacement data
- Identify and endorse key drivers of acute food insecurity

Drafting

FSIN and Technical Working Groups

- Initial drafting based on data endorsed by the Technical Working Groups
- Complement data and figures with qualitative literature reviews
- Produce relevant infographic, maps, graphics, and other visuals

Quality control check

FSIN and Technical Working Groups

- Review and comment on drafts
- Discuss until consensus is reached on draft report

3 | REVIEW AND CLEARANCE

Review

Senior Committee

- Review and comment on the report
- Provide guidance on addressing gaps or lack of consensus
- Troubleshoot on technical challenges
- Discuss until consensus is reached

Finalise production

FSIN and Technical Working Groups

- Implement Senior Committee recommendations
- Refine draft

FSIN

- Final proof-read

Institutional clearance

Senior Committee

- Each partner organisation validates the report

4 | RELEASE AND DISSEMINATION

Publication of the 2023 Global Report on Food Crisis

FSIN and the Global Network Against Food Crises

- Digital and physical publication of the full report and related products, including In Briefs (translated in English, Spanish, French, and Arabic), interactive version, and stand-alone assets (maps and infographics)
- Hybrid launch event with main partners
- Coordinated communications campaign to maximize visibility and outreach

Regional reports

FSIN, regional organisations and the Global Network Against Food Crises

- Production and publication of regional reports in coordination with regional partners to provide in-depth information on specific areas and regions
- Dissemination, including outreach campaign and events, organized in coordination with regional partners

All partners are in agreement with the approximate degree of magnitude and severity of acute food insecurity indicated for the countries included in this report except where a disclaimer is present. The differences stem from the varying interpretations of the data related to the factors which contribute to or indicate acute food insecurity.

Data selection

Country selection process

Step 1
FSIN and the Food Security Technical Working Group (TWG) lead the country selection process and present the list of countries/territories with the selection rationale to the Senior Committee for endorsement.

The process starts around October and continues until the end of the year to ensure inclusiveness throughout 2022. This step includes:

1. Pre-select all countries/territories that requested external assistance for food and/or faced shocks as assessed by FAO-GIEWS:
 - a. in 2022, or
 - b. at least once in the past 3 years, or
 - c. at least 3 years in the past 10 years

External assistance for logistical support, for capacity building, for longer-term poverty reduction or development purposes is not considered as a qualifying factor for a food crisis.

Countries that did not request external humanitarian food assistance, but which had acute food insecurity analyses available that indicate high levels of food insecurity, are not included in the GRFC. However, the TWG can still consider such analyses for the regional overviews in consultation with the Senior Committee.

2. Exclude high-income countries from the global country list, as these countries are expected to manage their food crises with internal resources.
3. Assess the following among the low or middle-income countries/territories, that are not identified by FAO-GIEWS assessments, but requested external food assistance because of:
 - a. hosting refugee populations who were assisted by UNHCR and WFP. If this criterion is met, only the refugee populations in that country are included, while the host country is only pre-selected if its resident population needed external food assistance.

- b. having over 1 million or at least 20 percent of its population forcibly displaced.
- c. having populations affected by conflict and insecurity, weather extremes and/or economic shocks

As a result of the above process, 73 countries/territories were identified as food crises in 2022.

Step 2
FSIN facilitates discussions with the Food Security TWG on the available acute food insecurity data for the pre-selected countries/territories. There are a few core rules on the data endorsement:

1. Assessment/analysis methodology is among those endorsed by the TWG (see data endorsement)
2. The 2022 peak analysis covers at least one month of 2022, and if several analyses are available, the one describing the highest magnitude of acute food insecurity is selected
3. The 2023 projection analysis covers at least one month of 2023, and if several analyses are available, the one describing the highest magnitude of acute food insecurity is selected instead of the projection that extends to the furthest.
4. For countries/territories where the analysis source or methodology differs between the 2022 peak and 2023 projection, the TWG reviews where and how the analysis results can be included to avoid confusion. Different methods may result in different estimates, and therefore it might be decided not to include some analyses or their figures and rather have more qualitative information from the sources.

Out of the 73 countries/territories identified as food crises, 58 had data available that met the requirements to be included in the GRFC 2023.

Out of the 73 countries/territories identified as food crises, 15 did not have data or did not meet the data/evidence criteria. Available information is included where possible in regional and global narratives.

Step 3
Identification of major food crises based on meeting one or more of the following criteria:

1. At least 20 percent of the country population in Crisis or worse (IPC/CH Phase 3 or above) or equivalent
2. At least 1 million people in Crisis or worse (IPC/CH Phase 3 or above) or equivalent
3. Any area classified in Emergency (IPC/CH Phase 4) or above
4. Included in the IASC humanitarian system-wide emergency response-level 3

42 countries/territories were identified as major food crises in 2022 and are reported in Chapter 3 of the GRFC.

Data endorsement: sources and methodologies

The data presented in the GRFC follow the data source priority ranking listed below. Exceptions can be made based on the Food Security TWG discussion and agreement on the data that appear to best reflect a particular country's food security situation. This is primarily due to different analysis coverage, timings or when a country/territory has information from several sources.

1. IPC/CH Acute Food Insecurity Analysis
2. FEWS NET IPC-compatible analysis
3. WFP's CARI methodology
4. Humanitarian Needs Overview, or similar country team source

Integrated Food Security Phase Classification (IPC)

The IPC results from a partnership of various organizations at the global, regional and country levels and is widely accepted by the international community as a global reference for the classification of acute food insecurity. There are around 30 countries currently implementing the IPC.

It provides the 'big picture' evidence base of food crises by assessing the following: how severe, how many, when, where, why, who, as well as the key characteristics. It provides data for two time periods – the current situation and future projection. This information helps governments, humanitarian actors and other decision-makers quickly understand a crisis (or potential crisis) and informs appropriate action.

The IPC makes the best use of the evidence available through a transparent, traceable and rigorous process. Evidence requirements to complete classification have been developed, considering the range of circumstances in which evidence quality and quantity may be limited while ensuring adherence to minimum standards. To ensure the application of the IPC in settings where access for collecting evidence is limited, specialized parameters have been developed. The IPC provides a structured process for making the best assessment of the situation based on what is known and shows the limitations of its classifications as part of the process.

IPC analysis teams consolidate and analyse complex evidence from different methods and sources (e.g., food prices, seasonal calendars, rainfall, food-security assessments, etc.), but the IPC allows them to describe their conclusions using the same, consistent language and standards and in a simple and accessible form. This harmonized approach is particularly useful in comparing situations across countries and regions, and over time.

The IPC technical manual version 3.1 provides information to understand and critically utilize IPC products and the protocols, including tools and procedures, to conduct the classification itself. See <https://www.ipcinfo.org/ipcinfo-website/resources/ipc-manual/en/>

IPC 3.1 acute food insecurity reference table

Phase name and description		Phase 1 None/Minimal	Phase 2 Stressed	Phase 3 Crisis	Phase 4 Emergency	Phase 5 Catastrophe/Famine	
		Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income.	Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies.	Households either have food consumption gaps that are reflected by high or above-usual acute malnutrition; or are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies.	Households either have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality; or are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation.	Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution and extremely critical acute malnutrition levels are evident. (For Famine Classification, area needs to have extreme critical levels of acute malnutrition and mortality.)	
Priority response objectives		Action required to build resilience and for disaster risk reduction	Action required for disaster risk reduction and to protect livelihoods	Urgent action required to			
				Protect livelihoods and reduce food consumption gaps	Save lives and livelihoods	Revert/prevent widespread death and total collapse of livelihoods	
First-level outcomes refer to characteristics of food consumption and livelihood change. Thresholds that correspond as closely as possible to the Phase descriptions are included for each indicator. Although cut-offs are based on applied research and presented as global reference, correlation between indicators is often somewhat limited and findings need to be contextualized. The area is classified in the most severe Phase that affects at least 20% of the population.							
Food security first-level outcomes	Food consumption (focus on energy intake)	Quantity: Adequate energy intake Dietary energy intake: Adequate (avg. 2 350 kcal pp/day) and stable Household Dietary Diversity Score: 5–12 food groups and stable Food Consumption Score: Acceptable and stable Household Hunger Scale: 0 (none) Reduced Coping Strategies Index: 0–3 Household Economy Analysis: No livelihood protection deficit Food Insecurity Experience Scale: (FIES 30 days recall): <-0.58	Quantity: Minimally Adequate Dietary energy intake: Minimally adequate (avg. 2 100 kcal pp/day) Household Dietary Diversity Score: 5-FG but deterioration ≥1 FG from typical Food Consumption Score: Acceptable but deterioration from typical Household Hunger Scale: 1 (slight) Reduced Coping Strategies Index: 4–18 Household Economy Analysis: Small or moderate livelihood protection deficit <80% FIES: Between -0.58 and 0.36	Quantity: Moderately Inadequate – Moderate deficits Dietary energy intake: Food gap (below avg. 2 100 kcal pp/day) Household Dietary Diversity Score: 3–4 FG Food Consumption Score: Borderline Household Hunger Scale: 2–3 (moderate) Reduced Coping Strategies Index: ≥19 (non-defining characteristics (NDC) to differentiate P3, 4 and 5) Household Economy Analysis: Livelihood protection deficit ≥80%; or survival deficit <20% FIES: > 0.36 (NDC to differentiate between Phases 3, 4 and 5)	Quantity: Very Inadequate – Large deficits Dietary energy intake: Large food gap; well below 2 100 kcal pp/day Household Dietary Diversity Score: 0–2 FG (NDC to differentiate P4 and 5) Food Consumption Score: Poor (NDC to differentiate P4 and 5) Household Hunger Scale: 4 (severe) Reduced Coping Strategies Index: ≥19 (NDC to differentiate P3, 4 and 5) Household Economy Analysis: Survival deficit ≥20% but <50% FIES: > 0.36 (NDC to differentiate between Phases 3, 4 and 5)	Quantity: Extremely Inadequate – Very large deficits Dietary energy intake: Extreme food gap Household Dietary Diversity Score: 0–2 FG Food Consumption Score: Poor (NDC to differentiate P4 and 5) Household Hunger Scale: 5–6 (severe) Reduced Coping Strategies Index: ≥19 (NDC to differentiate P3, 4 and 5) Household Economy Analysis: Survival deficit ≥50% FIES: > 0.36 (NDC to differentiate between Phases 3, 4 and 5)	
	Livelihood change (assets and strategies)	Livelihood change: Sustainable livelihood strategies and assets Livelihood coping strategies: No stress, crisis or emergency coping observed	Livelihood change: Stressed strategies and/or assets; reduced ability to invest in livelihoods Livelihood coping strategies: Stress strategies are the most severe strategies used by the household in the past 30 days	Livelihood change: Accelerated depletion/erosion of strategies and/or assets Livelihood coping strategies: Crisis strategies are the most severe strategies used by the household in the past 30 days	Livelihood change: Extreme depletion/liquidation of strategies and assets Livelihood coping strategies: Emergency strategies are the most severe strategies used by the household in the past 30 days	Livelihood change: Near complete collapse of strategies and assets Livelihood coping strategies: Near exhaustion of coping capacity	
Second-level outcomes refer to area-level estimations of nutritional status and mortality that are especially useful for identification of more severe phases when food gaps are expected to impact malnutrition and mortality. For both nutrition and mortality area outcomes, household food consumption deficits should be an explanatory factor in order for that evidence to be used in support of the classification.							
Food security second-level outcomes	Nutritional status*	Global Acute Malnutrition based on Weight-for-Height Z-score	Acceptable <5%	Alert 5–9.9%	Serious 10–14.9% or > than usual	Critical 15–29.9% or > much greater than average	Extremely Critical ≥30%
		Global Acute Malnutrition based on Mid-Upper Arm Circumference	<5%	5–9.9%	10–14.9%	15–29.9%	≥30%
		Body Mass Index <18.5	<5%	5–9.9%	10–19.9%, 1.5 x greater than baseline	20–39.9%	≥40%
Mortality*		Crude Death Rate <0.5/10,000/day Under-five Death Rate <1/10,000/day	Crude Death Rate <0.5/10,000/day Under-five Death Rate <1/10,000/day	Crude Death Rate 0.5–0.99/10,000/day Under-five Death Rate 1–2/10 000/day	Crude Death Rate 1–1.99/10,000/day or <2x reference Under-five Death Rate 2–3.99/10,000/day	Crude Death Rate ≥2/10,000/day Under-five Death Rate ≥4/10,000/day	
For contributing factors, specific indicators and thresholds for different phases need to be determined and analysed according to the livelihood context; nevertheless, general descriptions for contributing factors are provided below.							
Food security contributing factors	Food availability, access, utilization, and stability	Adequate to meet short-term food consumption requirements Safe water ≥15 litres pp/day	Borderline adequate to meet food consumption requirements Safe water marginally ≥15 litres pp/day	Inadequate to meet food consumption requirements Safe water >7.5 to 15 litres pp/day	Very inadequate to meet food consumption requirements Safe water >3 to <7.5 litres pp/day	Extremely inadequate to meet food consumption requirements Safe water ≤3 litres pp/day	
	Hazards and vulnerability	None or minimal effects of hazards and vulnerability on livelihoods and food consumption	Effects of hazards and vulnerability stress livelihoods and food consumption	Effects of hazards and vulnerability result in loss of assets and/or significant food consumption deficits	Effects of hazards and vulnerability result in large loss of livelihood assets and/or extreme food consumption deficits	Effects of hazards and vulnerability result in near complete collapse of livelihood assets and/or near complete food consumption deficits	

Classifying Famine (IPC/CH Phase 5)

Famine is classified at area level in the IPC according to an internationally accepted standard based on the following three criteria:

- At least 1 in 5 households face an extreme lack of food.
- At least 30 percent of children suffer from wasting.
- Two people for every 10 000 dying each day due to outright starvation or to the interaction of malnutrition and disease.

Given the severity and implications of this classification, all regular IPC protocols and special Famine protocols must be met before an area is classified in Famine (IPC/CH Phase 5). See IPC version 3.1.

Areas can be classified in Famine Likely if minimally adequate evidence available indicates that a Famine may be occurring or will occur. This classification should trigger prompt action by decision-makers to address the situation while calling for urgent efforts to collect more evidence. Famine and Famine Likely are equally severe, the only difference is the amount of reliable evidence available to support the statement.

The IPC supports Famine prevention by highlighting the following:

- IPC Phase 4 Emergency is an extremely severe situation where urgent action is needed to save lives and livelihoods.
- Households can be in Catastrophe (IPC/CH Phase 5) even if areas are not classified in Famine (IPC/CH Phase 5). This is the case when less than 20 percent of the population is experiencing Famine conditions and/or when malnutrition and/or mortality levels have not (or not yet) reached Famine thresholds. These households experience the same severity of conditions even if the area is not yet classified in Famine. This can occur due to the time lag between food insecurity, malnutrition and mortality, or in the case of a localized situation.
- Projections of Famine can be made even if the areas are not currently classified in Famine, thus allowing early warning.

Risk of Famine is an IPC statement that highlights the potential deterioration of the situation compared with the most-likely scenario expected during the projection period. Although it is not an IPC classification, it indicates a worst-case scenario that has a reasonable probability of occurring.

Cadre Harmonisé (CH)

The Cadre Harmonisé is the multi-dimensional analytical framework used by CILSS for the analysis and identification of areas and groups at risk of acute food insecurity in the Sahel, West Africa and Cameroon. It aims to inform national and regional food crisis prevention and management systems. It considers various indicators of food and nutrition security outcomes and contributing factors.

The CH relies on existing food security and nutrition information systems that have been in place in most Sahelian countries since 1985, and more recently in other coastal countries of West Africa. There are 18 countries currently implementing the CH: Burkina Faso, Benin, Cameroon, Cabo Verde, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, the Niger, Nigeria, Senegal, Sierra Leone and Togo.

The CH version 2.0 clarifies the specific functions and protocols for carrying out an integrated and consensual analysis of acute food and nutrition insecurity. See <http://www.cilss.int/index.php/2019/10/04/cadre-harmonise-manuel-version-2-0/>

IPC/CH five-phase classification

As a result of technical developments of the CH tools and processes and harmonization efforts carried out over the last decade, the IPC and the CH acute food insecurity approaches are very close to each other and give comparable figures of acute food insecurity. The five-phase classification is the same though there are a few differences pertaining to the use of certain indicators, classification of famine and estimation of humanitarian assistance.

Classification into five phases (1) None/Minimal, (2) Stressed, (3) Crisis, (4) Emergency, (5) Catastrophe/ Famine is based on a convergence of available evidence, including indicators related to food consumption,

livelihoods, malnutrition and mortality. Each phase has important and distinct implications for where and how best to intervene and thus influences priority response objectives. Populations in Crisis (IPC/CH Phase 3), Emergency (IPC/CH Phase 4) and Catastrophe (IPC/CH Phase 5) are deemed to be those in need of urgent food, livelihood and nutrition assistance. Populations in Stressed (IPC/CH Phase 2) require a distinct set of actions – ideally disaster risk reduction and livelihood protection interventions. Classifying Famine (IPC/CH Phase 5), the fifth phase of food insecurity, requires analytical conclusions that meet three specific criteria.

FEWS NET

Funded and managed by USAID's Bureau for Humanitarian Assistance (BHA), the Famine Early Warning Systems Network (FEWS NET) provides early warning and evidence-based analysis of acute food insecurity to inform humanitarian and development response. FEWS NET is monitoring 29 countries where it analyses the dynamics of food, nutrition and livelihood security so policymakers can design programmes that address the root causes of persistent or recurrent acute food insecurity, undernutrition and vulnerability.

FEWS NET classification is IPC-compatible, which means it follows key IPC protocols but is not built on multi-

partner technical consensus, so it does not necessarily reflect the consensus of national food security partners. See <https://fews.net/fews-data/333>

CARI

WFP has developed, and uses, the Consolidated Approach for Reporting Indicators of Food Security (CARI) methodology. This methodology is also commonly used by other food security partners in their assessments. CARI is a widespread practice for Multi-Sector Needs Assessments, used in calculating the People in Need figure for countries/territories not covered by IPC/CH analyses.

Before any intervention, WFP analyses the food security situation with partners to perform effective targeting, determines the most appropriate type and scale of intervention and ensures the most efficient use of humanitarian resources.

The CARI addresses the multiple dimensions of food security through five indicators – Food Consumption Score, reduced Coping Strategies Index, Economic Capacity to Meet Essential Needs (ECMEN) OR Food Expenditure Share, and Livelihood Coping Strategies.

Each surveyed household is classified into one of four food security categories – food secure, marginally food secure, moderately food insecure and severely food

Example of a completed CARI console

DOMAIN		INDICATOR	FOOD SECURE (1)	MARGINALLY FOOD SECURE (2)	MODERATELY FOOD INSECURE (3)	SEVERELY FOOD INSECURE (4)
CURRENT STATUS	Food Consumption	Food consumption groups FCG and reduced Coping Strategies Index	Acceptable consumption and reduced Coping Index below 4 21.1%	Acceptable consumption and reduced Coping Index 4 or above 30.3%	Borderline consumption 36.2%	Poor consumption 13.4%
COPING CAPACITY	Economic Capacity	ECMEN (or Food expenditure share when ECMEN is not available)	Total expenditure > MEB Food Expenditure Share <50%	Food Expenditure Share 50-65%	SMEB > Total Exp < MEB Food Expenditure Share 65-75% 18.4%	Total Exp < SMEB Food Expenditure Share >75% 71.5%
	Livelihood Coping Strategies	Livelihood Coping Strategies – Food Security	No coping 10.1%	Stress 19%	Crisis 3.6%	Emergency 11.4%
Food Security Index (CARI)			30.1%	27.0%	25.3%	17.6%

insecure. The results are presented within the CARI food security console, which provides the prevalence of each available CARI food security indicator. The aggregate results provide the population's overall food security outcome or Food Security Index (FSI).

Populations that are classified as 'moderately acute food insecure' and 'severely acute food insecure' as per WFP's CARI methodology are reported as an approximation to populations facing IPC/CH Phase 3 or above.

The indicators included within the CARI approach can be used within IPC/CH analyses, but there are many differences between the two methods. The fundamental difference is that the CARI analyses primary data from a single household survey, while the IPC/CH uses a 'convergence-of-evidence' approach, incorporating and analysing a variety of secondary information. While the CARI assesses the situation at a fixed point in time with no projection, the IPC/CH provides the current snapshot and a projection based on the most likely scenario for any period in the future.

Change in CARI methodology

The third edition was launched in December 2021, and it introduced two changes. First, the food consumption domain now also includes reduced Coping Strategies Index in addition to Food Consumption Group. Secondly, Economic Capacity to Meet Essential Needs (ECMEN) is now the preferred measure for economic vulnerability instead of food expenditure share. This is better for assistance targeting purposes. The main implication in the use in GRFC is the comparison of the CARI findings with prior surveys.

The ECMEN indicator identifies the percentage of households whose expenditures exceed the Minimum Expenditure Basket (MEB). A MEB is defined as what a household requires in order to meet their essential needs, on a regular or seasonal basis, and its cost. The MEB covers those needs that households meet fully or partially through the market. It serves as a monetary threshold that can be used to assess a household's economic capacity to meet their needs. To compute the ECMEN, household expenditures are used as a proxy for household economic capacity.

Link to CARI methodology <https://docs.wfp.org/api/documents/WFP-0000134704/download/>

Humanitarian Needs Overview (HNO) and other estimates

OCHA HNOs provide the People in Need (PiN) figure for the Food Security and Livelihoods cluster, based on data collected during the year and it is endorsed by the Humanitarian Country Team in each country/territory. Similarly, food insecurity estimates are provided by OCHA in the Humanitarian Response Plan (HRP) and Joint Response Plan (JRP). When no other sources for acute food insecurity estimates are available, the GRFC food security TWG assesses the methodology of the PiN to ensure it is based on acute food insecurity indicators and equivalent to Crisis or worse (IPC/CH Phase 3 or above) for use in the GRFC.

In GRFC 2023 three of the endorsed HNOs were based on methodologies that are not currently endorsed as data sources. These include:

FIES – The Food Insecurity Experience Scale is an experience-based metric of food insecurity severity. It relies on people's direct responses to questions about their experiences facing constrained access to food. Inspired by two decades of accumulated experience with similar tools in several countries, Voices of the Hungry developed the analytical protocols necessary to take experience-based food security measurement global, making it possible to compare prevalence rates across countries and even sub-national populations.

rCARI – The WFP remote-CARI (rCARI) methodology is implemented through remote surveys (phone or web-based) and rests on a reduced questionnaire adjusted for remote data collection compared with the traditional WFP CARI methodology. Comparability studies between the results of rCARI analyses and the results of traditional CARI methodology are ongoing, therefore there is uncertainty at this stage regarding the degree of over- and under-estimation biases.

The **WFP Essential Needs Assessment (ENA)** uses both qualitative and quantitative analysis to understand whether and how people facing a crisis or shock, including in refugee settings, are meeting their essential needs. The assessment estimates the number of people

unable to meet their essential needs and profiles these households by describing their main characteristics. Indicators include measures of households' economic capacity to meet essential needs, multidimensional deprivation of essential needs, coping strategies employed, and how households prioritize needs. In the GRFC, ENA-driven food insecurity statistics are considered as 'insufficient evidence'.

In preparation for the next GRFC process, the GRFC TWG will assess in more detail the comparability of ENA estimates with conventional estimates included in the GRFC. For more information see <https://www.wfp.org/publications/essential-needs-guidelines-july-2018>

Data not meeting GRFC requirements and data gaps

All information in the GRFC is carefully assessed prior to use in the report, particularly on the methods and indicators used in the analysis. Because of this rigorous process, there are countries where food security information is available, but the source does not use the methods endorsed by the GRFC food security TWG. The information is acknowledged and the decision not to utilize it in the report is primarily because it lacks robustness. Until a comparability study on indicators is available, such countries are listed in the GRFC as 'data not meeting GRFC requirements'.

'Data not meeting GRFC requirements' refers to publicly available information with limitations on robustness, whereas a "data gap" refers to absence of any public analysis for the year in question.

Citing the data source in the GRFC

All data sources are referenced according to the month and year of its publication. The analysis period is aligned with the IPC/CH and FEWS NET current and projection time frames, while for the other sources the analysis period reflects the timing of the data collection.

Acute food insecurity peak for 2022 and projection estimates for 2023

The peak estimate is based on the highest number of acutely food-insecure people in the year in question as reported by endorsed data sources. It does not reflect the latest analysis available but purely the observed peak.¹

Projection sections aim to identify the expected peak of acute food insecurity in 2023, notably through IPC/CH and IPC-compatible projections indicating the expected peak magnitude of population facing Crisis or worse (IPC/CH Phase 3 or above) in food-crisis countries. These projections do not necessarily extend to the typical lean season, but indicate the most severe period covered by the analyses by the time of the GRFC launch.

IPC/CH projections are estimated by outlining the main assumptions driving the evolution of acute food security in the projected period. The focus is on the 'most likely scenario' which helps to devise the potential changes on population distribution across IPC/CH phases. IPC projections take into account the potential effects of already funded or likely-to-be-funded and delivered humanitarian assistance in the area of analysis. CH projections project the number of people in CH Phase 3 or above in a scenario in which no food assistance is provided.

FEWS NET has available projection estimates in ranges for the countries where they have a presence, or they monitor remotely. FEWS NET food assistance outlook briefs provide information on the projected severity and magnitude of acute food insecurity (using ranges) and indicate each country's food-insecure population in need of urgent humanitarian food assistance (IPC Phase 3 or above). FEWS NET projections are based on a scenario development approach where a set of assumptions regarding the evolution of food security drivers and their impacts on food security outcomes in the absence of humanitarian food assistance. The upper bound of the range is included in regional and global aggregates.

¹ AFI estimates are rounded in this document.

Update of IPC/CH analysis

A projection update or a new analysis that covers at least part of the previous projection period overrides the original projection findings since the latest analysis is based on more up-to-date information, hence providing more accurate findings. In GRFC 2023, for Afghanistan and Yemen, the original projection analyses with higher numbers of acute food insecurity were not used, as subsequent analyses provided updated findings based on latest developments, including the operational environment and the scale of humanitarian assistance.

Use of 2023 projections when source changes from 2022 peak

Cases where the data source of projections figures for a given country differs from the 2022 peak are discussed at GRFC food security TWG level to ensure comparability. As a rule, 2023 projections are used if the 2022 and 2023 peak analyses from the two data sources are comparable and there is full consensus on the peak estimate for 2022. This is to make sure that the two data sources have a similar baseline situation for the projection. If this not the case, the TWG decides whether the 2023 projection is used with or without the numbers and/or maps. Qualitative narrative from the 2023 projection is always included.

Presenting information for displaced populations

For any country where the data are available for displaced populations and host communities, this is featured together with the host country brief. This is the case for Lebanon where acute food insecurity information is available for both the resident population and Syrian refugees, and for Colombia where it is available for residents and Venezuelan migrants. For those countries where information is only available for the displaced and the host country is not selected itself as a food crisis (e.g. Jordan), refugee narrative and findings is presented in the refugees' country of origin narrative and/or in the regional and global overview.

Data sources for the 2022 peak estimates and 2023 projection estimates

	Number of countries in 2022	Number of countries in 2023
IPC	27	21
CH	15	14
FEWS NET	3	4
WFP CARI	6	
OCHA	7	

Data from non-IPC/CH (FEWS NET, CARI and HNOs analyses) sources are presented in the country narratives according to the terminology and categorization used in the original data source.

In global and regional narratives, the wording 'high levels of acute food insecurity' or 'IPC/CH Phase 3 or above, or equivalent' are used to include both IPC/CH estimates and any food security estimates that are based on non-IPC/CH data source reflecting an approximation of IPC Phase 3 and above.

Until a thorough indicator comparability study is conducted, information is presented in summary tables as IPC/CH Phase 3 or above or equivalent without further breakdown to more specific IPC/CH Phases.

Graphs

The graphs to visualize acute food insecurity peaks, if possible, broken down by severity (Phase 1 to 5) over the seven years of GRFC history are included in chapter 3. To better contextualize the acute food insecurity levels, the graphs also show the total country population to which those peaks refer to for each year, as well as the number of people in IPC/CH Phases (1-2) to give the extent of the total population analysed.

In the previous editions of the GRFC, graphs have included all available comparable analyses, but these graphs are now shifted to the Annex while only the annual peak analysis is included in Chapter 3. Only years whose figures are from the same data source are presented in the 2016–2023 trends graphs.

Graphs for countries that are only covered in the GRFC for the first year as well as those for which data are only available for two years are not presented in Chapter 3.

Maps

The boundaries and names shown and the designations used on all the maps in this document do not imply official endorsement or acceptance by the United Nations.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined. The final status of the Abyei area is not yet determined.

A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Drivers of food insecurity

The drivers of food crises are often interlinked and mutually reinforcing, making it difficult to pinpoint the specific trigger or driver of each food crisis. Also, it is acknowledged that food insecurity is not driven solely by the occurrence of a hazard, but rather by the interaction between hazards and people specific vulnerabilities. Although not listing each specific vulnerability factor for each country, the GRFC 2023 takes a practical approach by estimating which are the most salient drivers for each country/territory out of the broad categories explained below. The Food Security TWG analyses each selected country and identifies which of the drivers could be considered as the primary driver. For countries with two or more drivers affecting various parts of the country, the primary driver was selected based on analysis of how many people were affected by each of the drivers. The GRFC presents the number of countries by primary driver in global and regional narratives and aggregates the corresponding numbers of acutely food insecure people.

For countries where the analysis is purely focused on the displaced populations, the primary driver reflects the reason those populations are displaced from their country of origin.

Conflict/insecurity

This includes interstate and intra-state conflicts, internal violence, banditry and criminality, civil unrest or political crises often leading to population displacements and/or disruption of livelihoods and food systems.

It is a key driver of acute food insecurity because in conflict situations civilians are frequently deprived of their income sources and or have difficulties in accessing food as food systems and markets are disrupted, pushing up food prices and sometimes leading to scarcities of water and fuel, or of food itself.

Landmines, explosive remnants of war and improvised explosive devices often destroy agricultural land, mills, storage facilities, machinery etc.

Conflict prevents businesses from operating and weakens the national economy, reducing employment opportunities, increasing poverty levels and diverting government spending towards the war effort.

Health systems are usually damaged or destroyed, leaving people reliant on humanitarian support – yet increasingly, insecurity and roadblocks prevent humanitarian convoys from reaching the most vulnerable, or aid agencies face lengthy delays, restrictions on personnel or the type or quantity of aid supplies, or insufficient security guarantees. Parties to conflict can deny people access to food as a weapon of war, especially in areas under blockade/ embargo. Food insecurity itself can become a trigger for violence and instability, particularly in contexts marked by pervasive inequalities and fragile institutions. Sudden spikes in food prices tend to exacerbate the risk of political unrest and conflict (FAO et al., 2017).

For countries with conflict/insecurity as the primary driver during the past year, change to another primary driver needs serious consideration as recovery from conflict/insecurity takes a long time and may remain as the underlying cause of food insecurity. In cases where conflict/insecurity has reduced and/or localized, with other drivers showing a predominant effect, the change in the primary driver from the previous year is considered.

Weather extremes

These include droughts, floods, dry spells, storms, cyclones, hurricanes, typhoons and the untimely start of rainy seasons.

Weather extremes drive food insecurity by directly affecting crops and/or livestock, cutting off roads and preventing markets from being stocked. Poor harvests push up food prices and diminish agricultural employment opportunities and pastoralists' terms-of-trade, lowering purchasing power and access to food, and triggering an early lean season when households are more market-reliant because of reduced food stocks.

Adverse weather events are particularly grave for smallholder farmers and pastoralists who rely on

agriculture and livestock-rearing to access food and often lack the resilience capacities to withstand and recover from the impacts of such shocks. People's vulnerability to weather shock events rests on their capacity to adapt and bounce back after their livelihood has been affected, as well as the scale and frequency of shocks. Repeated events further erode capacity to withstand future shocks.

Weather events and changes in climate can lead to an intensification of conflict, for instance, between pastoralist herders and farmers over access to water and grazing. There is ample evidence suggesting that natural disasters – particularly droughts – contribute to aggravating existing civil conflicts.

Economic shocks

Economic shocks at country level can affect the food insecurity of households or individuals through various channels. Macroeconomic shocks may lead to increases in acute food insecurity through for instance, a contraction in GDP leading to high unemployment rates and consequent loss of income for those affected households, or a significant contraction in exports and/or a critical decrease in investments and other capital inflows, bringing a significant currency depreciation and high inflation, increasing production costs and food prices and worsening terms of trade which may lead to increases in acute food insecurity. High debt and limited fiscal space constrain economic growth, increase vulnerability to economic shocks and detract from development spending.

Increases in world market prices of staple grains, oil and agricultural inputs can affect food availability, push up domestic food prices for consumers and reduce their purchasing power. Economic shocks can also occur at a more localized level or hit only a particular socioeconomic category of households. For instance, pastoralists' facing lack of animal feed, veterinary services, subsequent deteriorating livestock body conditions and depressed livestock prices are likely to be affected by a reduction in purchasing power and face a constrained access to food as a result.

Disease outbreaks

Disease outbreaks (occurrence of disease cases in excess of normal expectancy) are usually caused by an infection, transmitted through person-to-person contact, animal-to-person contact, or from the environment or other media. Water, sanitation, food and air quality are vital elements in the transmission of communicable diseases and in the spread of diseases prone to cause epidemics.

Displaced populations – particularly in overcrowded camps – are more susceptible to disease outbreaks which strained health systems cannot prevent or control (WHO). Epidemics and pandemics can also affect the ability of people to carry on their activities and livelihoods and, in the worst cases when widespread, may also affect markets and supply chains.

Crop pests and animal diseases

Transboundary plant pests and diseases can easily spread to several countries and reach epidemic proportions. Outbreaks and upsurges can cause huge losses to crops and pastures, threatening the livelihoods of vulnerable farmers and the food and nutrition security of millions at a time.

All animal diseases have the potential to adversely affect human populations by reducing the quantity and quality of food, other livestock products (hides, skins, fibres) and animal power (traction, transport) that can be obtained from a given quantity of resources and by reducing people's assets. Transboundary Animal Diseases (TADs) may be defined as those epidemic diseases that are highly contagious or transmissible and have the potential for very rapid spread, irrespective of national borders, causing serious socioeconomic and possibly public health consequences.

These diseases, which cause a high morbidity and mortality in susceptible animal populations, constitute a constant threat to the livelihood of livestock farmers. Peste des petits ruminants (PPR), foot-and-mouth disease (FMD) or Rift Valley fever (RVF) often affect livestock and pastoralists' livelihoods in food-crisis contexts.

Nutrition

IPC acute malnutrition reference table

The IPC Acute Malnutrition Scale classifies the severity of acute malnutrition in the population under assessment. The IPC analysis process reviews all contributing factors affecting wasting in the area of analysis, such as dietary intake, disease, feeding and care practices, health and WASH environment and contextual information such as access to services and mortality are all included in the analysis.

Phase name and description	Phase 1 Acceptable	Phase 2 Alert	Phase 3 Serious	Phase 4 Critical	Phase 5 Extremely Critical
	Less than 5% of children are acutely malnourished.	5-9.9% of children are acutely malnourished..	10-14.9% of children are acutely malnourished.	15-29.9% of children are acutely malnourished. The mortality and morbidity levels are elevated or increasing. Individual food consumption is likely to be compromised.	30% or more children are acutely malnourished. Widespread morbidity and/or very large individual food consumption gaps are likely evident.
The situation is progressively deteriorating, with increasing levels of acute malnutrition. Morbidity levels and/or individual food consumption gaps are likely to increase with increasing levels of acute malnutrition.					
Priority response objective to decrease acute malnutrition and to prevent related mortality. ²	Maintain the low prevalence of acute malnutrition.	Strengthen existing response capacity and resilience. Address contributing factors to acute malnutrition. Monitor conditions and plan response as required.	Urgently reduce acute malnutrition levels through →		
			Scaling up of treatment and prevention of affected populations.	Significant scale-up and intensification of treatment and protection activities to reach additional population affected.	Addressing widespread acute malnutrition and disease epidemics by all means.
Global Acute Malnutrition (GAM) based on weight for height Z-score (WHZ)	<5%	5.0 to 9.9%	10.0 to 14.9%	15.0 to 29.9%	≥30%
Global Acute Malnutrition (GAM) based on mid-upper arm circumference (MUAC)	<5%				
	5-9.9%				
	10-14.9%				
	≥15%				
*GAM based on MUAC must only be used in the absence of GAM based on WHZ; the final IPC Acute Malnutrition phase with GAM based on MUAC should be supported by an analysis of the relationship between WHZ and MUAC in the area of analysis and also by using convergence of evidence with contributing factors. In exceptional conditions where GAM based on MUAC is significantly higher than GAM based on WHZ (i.e. two or more phases), both GAM based on WHZ, and GAM based on MUAC should be considered, and the final phase should be determined with convergence of evidence.					

Nutrition and health – key indicators and categorization

Wasting

Moderate wasting using the weight for height indicator is identified by weight for height z scores (WHZ) between -2 and -3 of the reference population, and severe wasting by WHZ below -3. Wasting reflects both moderate and severe wasting in a population. Wasting can also be defined by Mid-Upper Arm Circumference (MUAC) measurements ≤ 12.5 cm, with severe wasting defined with a measurement of ≤ 11.5 cm.

Severity index for prevalence of wasting in children aged 6–59 months

Prevalence ranges	Label
< 2.5%	Very low
2.5–< 5%	Low
5–< 10%	Medium
10–< 15%	High
$\geq 15\%$	Very high

Source: De Onis et al. Public Health Nutrition, 2018. Available at: <https://www.who.int/nutrition/team/prevalence-thresholds-wasting-overweight-stunting-children-paper.pdf>

Stunting

Stunted children under 5 years old are identified by a height for age z score (HAZ) below -2 of the reference population. Severe stunting is defined as HAZ below -3.

Severity index for prevalence of stunting in children aged 6–59 months

Prevalence ranges	Label
< 2.5%	Very low
2.5–10%	Low
10–< 20%	Medium
20–<30%	High
$\geq 30\%$	Very high

Source: De Onis et al. Public Health Nutrition, 2018. Available at: <https://www.who.int/nutrition/team/prevalence-thresholds-wasting-overweight-stunting-children-paper.pdf>

Minimum Dietary Diversity

This indicator refers to the percentage of children aged 6–23 months who receive foods from five or more out of eight food groups a day.

The eight food groups are: i. breastmilk; ii. grains, roots and tubers; iii. legumes and nuts; iv. dairy products (infant formula, milk, yogurt, cheese); v. flesh foods (meat, fish, poultry and liver/organ meats); vi. eggs; vii. vitamin-A rich fruits and vegetables; viii. other fruits and vegetables. In some surveys, minimum dietary diversity is calculated based on seven food groups, excluding breastmilk. In these cases, the indicator refers to the percentage of children aged 6–23 months who receive foods from four or more out of seven food groups a day.

Minimum Meal Frequency

The indicator refers to the proportion of children aged 6–23 months who receive solid, semi-solid or soft foods at least the minimum number of recommended times a day depending on their age and whether they are breastfed.

Minimum Acceptable Diet

This composite indicator combines meal frequency and dietary diversity to assess the proportion of children aged 6–23 months consuming a diet that meets the minimum requirements for growth and development.

Prevalence ranges	Label
> 70%	Phase 1 – Acceptable/minimal
40–70%	Phase 2 – Alert/stress
20–39.9%	Phase 3 – Serious/severe
10–19.9%	Phase 4 – Critical/extreme
< 10%	Phase 5 – Extremely critical/ catastrophic

Source: Preliminary thresholds suggested by IFE Core Group.

Percentage of households not consuming micronutrient-rich food (analysed in refugee populations)

This refers to the proportion of households with no member consuming any vegetables, fruits, meat, eggs, fish/seafood, and milk/ milk products over a reference period of 24 hours. The food group of vegetables, fruits, meat, eggs, fish/seafood, and milk/milk products are the same as the 12 food groups defined by FAO (2011).

Exclusive breastfeeding

Exclusive breastfeeding in the first 6 months followed by the timely introduction of safe and nutritionally adequate complementary foods with continued breastfeeding until 2 years of age or beyond ensures children receive all the nutrients they need. This indicator refers to the percentage of infants 0–5 months of age who were fed only breast milk during the previous day.

Prevalence ranges	Label
> 70%	Phase 1 – Acceptable/minimal
50–70%	Phase 2 – Alert/stress
30–49.9%	Phase 3 – Serious/severe
11–29.9%	Phase 4 – Critical/extreme
< 10%	Phase 5 – Extremely critical/catastrophic

Source: adapted from UNICEF Breastfeeding Score Card.

Prevalence of anaemia

This indicator refers to the proportion of children aged 6–59 months and of reproductive age women (15–49 years) who are anaemic.

Anaemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiological needs, which varies by age, sex, altitude, smoking and pregnancy status.

Iron deficiency is thought to be the most common cause of anaemia globally, although other conditions, such as folate, vitamin B12 and vitamin A deficiencies, chronic inflammation, parasitic infections and inherited disorders can all cause anaemia. In its severe form, it is associated with fatigue, weakness, dizziness and drowsiness. Pregnant women and children are particularly vulnerable (WHO).

Prevalence ranges	Label
< 5.0%	No public health problem
5.0–19.9%	Mild public health problem
20.0–39.9%	Moderate public health problem
$\geq 40.0\%$	Severe public health problem

Source: WHO, 2008.

Access to basic drinking water services

Improved drinking water sources are those which, by nature of their design and construction, have the potential to deliver safe water. The WHO and UNICEF Joint Monitoring Program for Water Supply Sanitation and Hygiene (JMP) subdivides the population using improved sources into three groups (safely managed, basic and limited) according to the level of service provided. In order to meet the criteria for a safely managed drinking water service, people must use an improved source meeting three criteria: accessible on premises; available when needed; free from contamination. If the improved source does not meet any one of these criteria but a round trip to collect water takes 30 minutes or less, then it is classified as a basic drinking water service. If water collection from an improved source exceeds 30 minutes, it is categorized as a limited service (WHO and UNICEF).

GRFC 2023

Limitations and data challenges, 2022

There are no estimates for populations in Stressed (IPC/CH Phase 2) due to the use of non-IPC/CH data sources in 16 countries/territories: Algeria (refugees), Bangladesh (Cox's Bazar), Congo (refugees), Ecuador (migrants), Ethiopia, Iraq, Jordan (Syrian refugees), Libya, Myanmar, Nicaragua, Palestine, Sri Lanka, the Syrian Arab Republic, Uganda, Ukraine, and Zimbabwe.

Lack of/low data availability for refugee food security
Refugee food security is measured in various ways across refugee populations and data are not systematically collected, disaggregated, consolidated or shared.

WFP ENA assessment is available for refugee populations in Rwanda and IFRC vulnerability assessment for Syrian refugees in Türkiye but not accepted by the GRFC 2023 for inclusion.

Timely public release of acute food insecurity analyses
While some countries were known to have food security analyses conducted in 2022, the results were not always available for the GRFC on time. In the case of El Salvador, assessment results for 2022 were not released, and IPC analyses for Angola did not meet the data deadline.

Limited availability and frequency of IPC acute malnutrition analyses
Only 18 countries conducted an IPC acute malnutrition analysis covering a portion of 2022: Afghanistan, Angola, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Kenya, Madagascar, Mali, Mozambique, Nigeria, the Niger, Pakistan, Somalia, South Sudan, Uganda and Yemen. Out of these, 15 had projections for child wasting in 2023 while the three others, Angola, Mozambique and Yemen, did not.

Limited availability of updated information and frequency of national nutrition surveys
Eleven out of the 42 major food-crisis countries in chapter 3 do not have national updated/recent malnutrition

prevalence and IYCF data at the sub-national or national level beyond 2019.

Limited 2023 projections (acute food insecurity and malnutrition)
For several countries with no IPC/CH or compatible products where alternative estimates are used, 2023 projections are not available.

In some cases where IPC/CH is used, data collection and analysis updates are not as frequent as might be needed to provide estimates for the projection section of this report. IPC-compatible analyses offer range values for projection rather than precise estimates. Out of the 17 IPC acute malnutrition analyses available for 2022, 14 had projections for wasting in 2023 while the three others, Angola, Mozambique and Yemen, did not.

Comparability of data source for acute food insecurity estimates in food crises, 2021–2023

This section briefly summarizes the countries for which it is suggested to pay attention when comparing figures for 2021 and 2022, or for 2022 and 2023.

In countries where the population increased, peak estimates for 2021, 2022 and the 2023 projection remain comparable as the size of the analysed population increased proportionally to the size of the total country population based on official estimates.

Burundi
The 2021 and 2022 peak estimates are comparable. However, the 2023 projection saw a change from IPC analysis to FEWS NET IPC-compatible analysis. These two data sources may not always provide similar estimates, therefore, caution is required when comparing these estimates.

Central African Republic
The peak estimates of 2021, 2022 and projection for 2023 are comparable (having less than 10 percentage point difference in total population coverage). However, the official estimates used for the country population data used by the IPC analysis increased from 4.9 million in 2021 to 6.1 million in 2022.

Democratic Republic of the Congo
The comparison of the 2021 peak estimate with the 2022 peak and 2023 projection needs careful consideration. Firstly, the analysis coverage increased from 96.0 million people or 91 percent of the country population in February 2021 to 103.0 million people or 94 percent in July 2022. Secondly, the official estimates used for the country population data increased from 105.0 million people in February 2021 to 109.6 million in July 2022.

Ethiopia
The 2021 and 2022 peaks are not comparable because of the change in the data source and coverage of the analyses. The 2021 peak is derived from IPC analysis that covered 49 percent of the country, while the 2022 estimate is based on an HRP mid-year update, that is basing the food insecurity estimates on WFP's CARI-based assessments in Tigray, and Household Economic Assessment methodology for the rest of the country.

Jordan (refugee populations)
The 2021 and 2022 peak estimates are not comparable, even though both are based on WFP's CARI methodology. The main challenge on comparability is the change in the economic vulnerability domain. During 2021, the

domain was based on food expenditure share while in 2022 it is measured via the economic vulnerability to meet essential needs indicator. This change helps with food assistance targeting, but usually results in higher numbers and prevalence of food insecurity.

Lebanon (refugee populations)
With the initiation of acute food insecurity IPC analysis in Lebanon, the 2021 and 2022 peak estimates are not comparable. The 2021 peak figure followed WFP's CARI methodology and the 2022 peak and 2023 projection are derived from IPC analyses.

Libya
The 2021 and 2022 peaks are not comparable because of the change in the analysis coverage. Both analyses include IDPs, returnees, refugees and migrants. While 2021 includes vulnerable residents too, this population group was excluded in 2022.

Mozambique
The 2021 peak is not comparable with the 2022 peak and 2023 projection, as the analysis coverage increased from 18.1 million people or 60 percent of the country population in October 2020 to 32.0 million people or 100 percent in November 2022. .

At the same time, the official estimates used for the country population data by the IPC analysis increased from 30.1 million in October 2020 to 32.0 million in November 2022.

Nigeria
The peak estimates for 2021 and 2022 peaks are comparable according to GRFC comparability rules (covering similar areas and having less than 10 percentage point difference in total population coverage). However, there are some geographical changes between the analyses. The 2021 peak covered 21 states and the FCT, accounting for 73 percent of the population and the 2022 peak covered 21 states and the FCT, accounting for 72 percent of the population.

However, the 2023 projection is not comparable to the 2022 peak, as the CH analysis coverage increased to 26 States and the FCT, with the population analysed increasing from 159.1 million people in April 2022 to 193.6 million in November 2022, which accounted for 86 percent of the national population. At the same time the country population data used by the CH analysis increased from 219.5 million in April 2022 to 224.4 million in November 2022 for the 2023 projection.

Pakistan

The 2021 and 2022 peak estimates are not comparable at the national level without mentioning the different districts covered. Both years' analyses covered 9 percent of the country population. However, the analysis coverage increased from nine districts in 2021 to 12 districts in Balochistan province. At the same time the total population analysed increased from 18.6 million to 19.8 million people.

Palestine

The 2021 and 2022 peaks are not comparable due to a change in the indicators used when calculating the composite indicator for acute food insecurity. For 2021, the methodology followed WFP's CARI approach, while the 2022 numbers are based on the Multi-sectoral Needs Assessment (MSNA) which uses different indicators including FIES with a 30-day recall period and ECMEN.

Somalia

The peak estimates of 2020, 2021 and projection for 2022 are comparable (covering similar areas and having less than 10 percentage point difference in total population coverage). However, the official estimates used for the country population data used by the IPC analysis increased from 15.7 million August 2021 to 17.0 million in November 2022.

United Republic of Tanzania

The comparison over the years of analysis is particularly limited as the population and geographical coverage increased from 14 district councils located in the mainland covering 6 percent of the country population in 2021 to 28 district councils in the mainland and the two islands in Zanzibar (17 percent) in 2022. Additionally, the official estimates used for the country population data used by the IPC analysis increased from 57.6 million in December 2021 to 61.7 million in October 2022.

Uganda

The peak estimates of 2021, 2022 and projection for 2023 are comparable (covering similar areas and having less than 10 percentage point difference in total population coverage). However, the country population data used by the FEWS NET analysis decreased from 45.7 million in 2021 to 44.2 million in 2022.

Uganda has an IPC analysis available, but the TWG opted to use FEWS NET analysis because of wider analysis coverage.

Ukraine

The 2021 and 2022 peak estimates are not comparable because the 2021 analysis covered only Donetsk and Luhansk oblasts while the 2022 analysis is nationwide. For the 2022 peak, a REACH assessment based on WFP CARI methodology was used and the prevalence of food insecurity applied to the HNO 2023 country population figures, which specifies how many people are living in Ukraine at the end of 2022.

Zambia

The comparison over the years of analysis is particularly limited as the population and geographical coverage increased from 64 rural districts (38 percent) in 2021 to nationwide rural coverage for the 2022 peak and 2023 projection. In the 2022 analysis, while the geographical coverage decreased to 61 rural districts, the country population coverage increased to 66 percent. Additionally, the official estimates used for the country population data by the IPC analysis increased from 18.0 million in February 2021 to 18.9 million in June 2022.

Zimbabwe

The comparison between the 2021 and 2022 peak numbers is limited by the change in the data source. The GRFC 2022 used the IPC analysis covering rural populations, while the GRFC 2023 source shifted to FEWS NET with nationwide coverage. To overcome the data source change while building the narrative, the chapter 3 makes comparisons to FEWS NET 2021 and 2022 peaks and 2023 projection.

The IPC analysis for 2021 peak (3.4 million people / 35 percent of the analysed population in IPC Phase 3 or above) remains in the trend table in chapter 1 for consistency with the GRFC 2022 reported figures.

History of GRFC criteria 2016–2023

With high demand for the GRFC as an annual reference document for the coming years, some technical criteria have been adjusted.

Country selection

In the first GRFC edition, all countries in the FAO-GIEWS list for countries requiring external assistance were included, plus an additional set based on reports and publicly available information on food insecurity.

From the 2018 edition, the GRFC considers only countries requesting urgent assistance to face a shock on their food security. Countries managing the crises without external assistance or requesting assistance on root causes and/or technical support or assisting fewer than 5 000 people are not considered for inclusion.

Countries that have been excluded from the GRFC due to this change (data are available, but country is not selected as no external humanitarian food assistance was requested) are for example South Africa (GRFC 2021) and Timor Leste (GRFC 2023).

Identification of major food crises

The identification of major food crises has evolved slightly over the GRFC editions, and the changes are explained below:

For GRFC 2017, countries/territories were identified based on:

- They had populations in IPC/CH Phase 4 or above
- At least 20 percent of the populations was in IPC/CH Phase 3 or above or equivalent
- At least 1 million people were in IPC/CH Phase 3 or above or equivalent
- Country is included in the IASC Humanitarian System-Wide Emergency Response emergencies list

The list was finally reviewed against ranking as 'very high risk' Index for Risk (INFORM). Exceptions were made for Myanmar, Mali and Cote d'Ivoire.

For GRFC 2018, the criteria ‘countries having any segment of the population in IPC/CH Phase 4 or higher’ was replaced by ‘countries having any area classified in IPC/CH Phase 4 or higher’. This criterion has remained unchanged since. For GRFC 2021, the criterion of ‘at least 20 percent of the population analysed in IPC/CH Phase or above’ was changed to ‘at least 20 percent of the country population in IPC/CH Phase or above’. This change was initiated primarily to avoid small-coverage analyses being identified as major food crises. If the analysis findings indicate a serious food insecurity situation, the country would still be identified if any of the other three criteria were met.

Countries that have not been identified as major food crises with this amended rule are for example the Republic of the Congo (GRFC 2021) and Lesotho (GRFC 2023).

Regional crises as major food crises

Previous GRFC editions identified regional crises as major food crises. Different countries, or specific areas within neighboring countries being affected by the same crisis were considered as one major food crisis. Between 2017 and 2023 this was the case for:

Areas in Cameroon, Chad and Nigeria in GRFC 2017, 2018, 2019 included as Lake Chad Basin food crisis.

Areas in Burkina Faso, Mali and Niger in GRFC 2020 included as Central Sahel crisis in the regional analysis in chapter 2, while country-wide analyses for Burkina Faso, Mali and Niger were included in chapter 3. Although Mali was not identified as a major food crisis, the country was exceptionally identified so to follow the past practice for regional crisis.

Areas in El Salvador, Guatemala and Honduras in GRFC 2019 and GRFC 2020 included as the Central American Dry Corridor crisis.): specific areas and numbers were presented in GRFC 2019, while for GRFC 2020, the regional crisis was captured in the regional section and in the country summary table full national figures were presented.

As many of these food crises have grown in severity and magnitude, the countries have individually met the criteria for being defined a major food crisis in the following GRFC report.

GRFC partners endorsed, that no past approaches will be amended with the new ones to avoid confusion. Therefore, all countries that have been included in the report, and those that have been identified as major food crises with past criteria, will remain in historical records according to the practices at that specific time.

Regional composition – chapter 2

Regional grouping has changed over the years primarily related to availability of data for neighboring countries and having a group of countries in the region affected by the same type of crisis or having common underlying factors. These year-to-year changes as well as those in the data availability, strongly affects regional trend analysis.

Historical inclusion of countries/territories in the GRFC, 2017–23

Over the seven years of the GRFC's existence, 39 countries/territories have systematically appeared as food crises each year following the rigorous selection process. Of these, 19 have qualified as a major food crisis each year. See tables.

Thirteen countries have regularly been selected for inclusion but subsequently excluded because of recurrent data gaps. The Democratic People's Republic of Korea and the Bolivarian Republic of Venezuela have had estimates available only once and qualified as major food crises. The other countries regularly excluded are: Cuba, the Republic of the Congo, Eritrea, the Lao People's Democratic Republic, Nepal, Papua New Guinea, Peru (Venezuelan migrants), Philippines, Tajikistan, Timor-Leste and Vanuatu. On the other hand, the Kyrgyz Republic – a regularly excluded country, was no longer identified as a food crisis. Algeria (refugees) and Lebanon (national), regularly selected in the GRFC, had first time data in 2022 that met the GRFC requirements.

Economic shocks drove new countries – Colombia, Ecuador and Peru – to be identified as food crises in 2022. Of these, Colombia met the criteria as a major food crisis. Other new countries that were identified as a major food crises in the GRFC 2023 were Guinea, Dominican Republic, Lebanon, Mauritania and Myanmar.

Over the seven years, several regional crises have featured, allowing for coverage of countries that would otherwise not have qualified for inclusion as a major food crises. The Lake Chad Basin region, encompassing the Extrême Nord region of Cameroon, western Chad, northeastern Nigeria and eastern Niger, was included in 2017, 2018 and 2019 editions. The Central Sahel region, covering Burkina Faso, Mali and western Tillabéri and Tahoua regions in the Niger, was in the GRFC 2020. The Central American Dry Corridor region (El Salvador, Guatemala, Honduras) was in the 2018–2020 editions. As many of these food crises have grown in severity and magnitude, the countries have qualified for inclusion in their own right.

Number of food crises and major food crises, GRFC 2017–2023

	2016	2017	2018	2019	2020	2021	2022
Number of potential food crises considered ¹	65	61	66	71	79	77	73
Number of food crises identified (with endorsed data)	48	51	53	55	55	53	58
Number of major food crises	23	29	32	35	34	35	42

Countries/territories identified as major food crises in the GRFC, 2017–2023

7 years	19 countries/territories Afghanistan, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Eswatini, Ethiopia, Haiti, Madagascar, Malawi, Mozambique, Niger, Nigeria, Somalia, South Sudan, Sudan, Syrian Arab Republic, Yemen, Zimbabwe
6 years	7 countries/territories Bangladesh, Burundi, Guatemala, Kenya, Pakistan, Palestine, Uganda
5 years	3 countries Burkina Faso, Honduras, Lesotho
4 years	5 countries Angola, Iraq, Mali, Namibia, Zambia
3 years	5 countries Djibouti, El Salvador, Sierra Leone, Ukraine, United Republic of Tanzania
2 years	1 country South Africa,
Once	8 countries Colombia, Democratic People's Republic of Korea, Guinea, Lebanon, Mauritania, Myanmar, Sri Lanka, Venezuela (Bolivarian Republic of)
Never	13 countries Cabo Verde, Congo, Côte d'Ivoire, Gambia, Ghana, Guinea-Bissau, Liberia, Libya, Nepal, Nicaragua, Rwanda, Senegal, Togo

Frequency of inclusion of food crises countries/territories with data meeting the GRFC requirements, 2017–2023

7 years	39 countries/territories Afghanistan, Bangladesh, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Eswatini, Ethiopia, Gambia, Guatemala, Guinea, Guinea Bissau, Haiti, Honduras, Iraq, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nicaragua, Niger, Nigeria, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Syrian Arab Republic, Uganda, Yemen, Zambia, Zimbabwe
6 years	8 countries/territories Angola, Djibouti, El Salvador, Namibia, Pakistan, Palestine*, United Republic of Tanzania, Ukraine
5 years	4 countries Cabo Verde, Côte d'Ivoire, Lebanon (refugees), Myanmar
4 years	1 country Jordan (refugees)
3 years	3 countries Colombia (migrants), Ecuador (migrants), Türkiye (refugees),
2 years	6 countries Egypt (refugees), Nepal, Rwanda (refugees), South Africa, Sri Lanka, Togo
Once	7 countries Algeria (refugees), Congo (national or refugees), Colombia, Democratic People's Republic of Korea, Lebanon, Peru (migrants), Venezuela (Bolivarian Republic of)

* The occupied Palestinian territories are referred to as Palestine in the GRFC 2023.