



IPC GUIDANCE NOTE

Estimating the Population in Need of Humanitarian Food Assistance

September 2026

WHAT DOES THE IPC TECHNICAL MANUAL VERSION 3.1 SAY ABOUT THE TOPIC?

- The IPC Technical Manual provides guidance for estimating populations with any potential mitigating effects of assistance. The Manual, however, does not provide guidance for estimating the total population in need of humanitarian food security assistance (PiNHA). Refer to page 43 in Manual 3.1 for details.

WHAT DOES THIS RESOURCE ADD TO THE MANUAL?

- This document provides guidance for estimating and communicating the total population in need of humanitarian food security assistance (PiNHA).

SECTION USE

- This guidance provides information to analysts on estimating the total number of populations in need of humanitarian food security assistance (PiNHA), in conjunction with regular IPC Acute Food Insecurity analyses. This document includes practical guidance on multiple approaches for preparing PiNHA estimates, as well as communicating those estimates. The guidance is expected to be used by IPC facilitators and analysts in countries where large-scale, highly significant humanitarian food security assistance is provided to prepare PiNHA estimates in addition to standard IPC population estimates.

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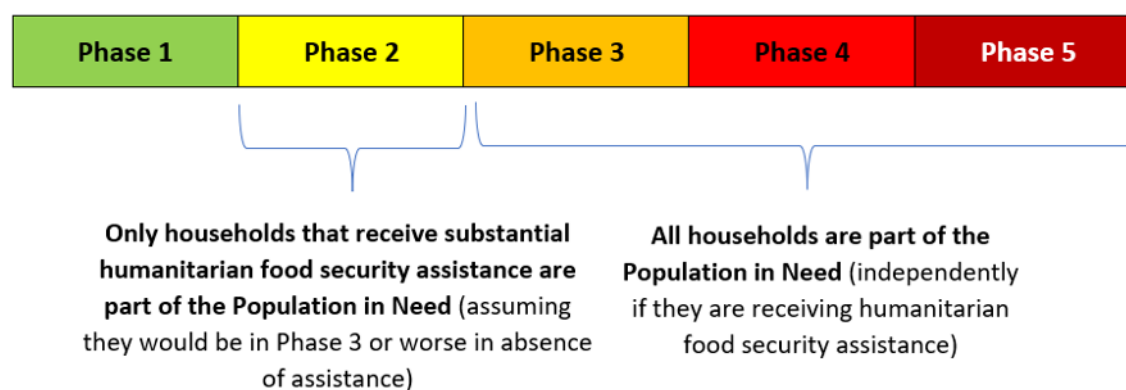


1. INTRODUCTION

Under existing IPC protocols, the IPC classifies acute food insecurity among populations and in areas based on actual or forecasted conditions, without removing the positive effects of any humanitarian food security assistance (HFSA).¹ Under existing IPC AFI protocols, populations are classified into five different IPC Phases, given the full set of conditions and outcomes those households are understood to be facing. Given that some households may be relying on humanitarian food security assistance in the current situation to meet their basic food needs, those households will likely have better outcomes (and therefore be classified in a better IPC Phase) than if they had not received assistance. Similarly, projection analyses in which HFSA is planned and funded or likely to be funded and delivered will lead to classification of households in a better IPC Phase than if no HFSA is provided. As such, IPC population estimates of populations in Crisis or worse (IPC Phase 3 or above) do not reflect total HFSA needs for an area, but only HFSA needs further to those that have already been met.²

By contrast, the purpose of “population in need for food security assistance” estimates, is to capture the total number of people who would be in IPC Phase 3 or above (Crisis or worse) if no HFSA were provided during the period analysed. Thus, the population in need of assistance may include, further to those in Phase 3 or above, some households whose outcomes reflect IPC Phase 2 (Stressed), but only because humanitarian food assistance prevented them from facing Phase 3 or above outcomes. As a result, to understand the total number of people in need of assistance, analysis should be conducted to determine the share of the population in Phase 2 who would have been in Phase 3 or above if it did not benefit from assistance and therefore should be included in the PiNHA estimate.

Figure 1: How populations in IPC phases should inform the PiNHA



Conceptually the PiNHA analysis is conducted to estimate the share of population who will shift from Phase 2 to Phase 3 or above to determine the PiNHA.³ In practice, the entire population in Phase 2 receiving HFSA is not expected to be in Phase 3 or above without that assistance: the task of the analysts is to determine which share of that population group would likely be in Phase 3 or above without HFSA.⁴ Population groups already in Phase 3 or above are always included in the new estimate, as they remain in these phases even with assistance and would require HFSA in its absence.

The following guidance has been developed to support IPC facilitators and analysts in estimating the total population that would be in Phase 3 or above in the absence of HFSA, across IPC analysis areas and analysed populations. It outlines methodological options, advice on their application, and key principles for analysis and communication.

1. This guidance note focuses on humanitarian food security assistance (HFSA) when identifying the kind of assistance taken into consideration when estimating the Population in Need of Humanitarian food security Assistance (PiNHA). Humanitarian food security assistance refers to cash, vouchers, food rations, and livelihood assistance. In those cases where more generic references to “assistance” are made, this is for the purposes of brevity and should be understood as humanitarian food security assistance, unless otherwise specified.

2. Some institutions refer to these as “gap” estimates, as they reflect the gap between what is needed and what has been provided. This is not, however, standard IPC terminology and hence not used in this guidance.

3. Conceptually also populations in Phase 1 can be there due to having received assistance. Based on lessons learned and field experiences, however, it seems that it is rather rare for households to move from Phase 3+ to Phase 1 due to receiving assistance. Conversely, it is also somewhat unlikely for households in Phase 1 to move to Phase 3 in absence of assistance.

4. In practice in many PiNHA analyses the increase in the PiNHA estimate compared to the standard IPC populations ranges between 0 and 20 percentage points. The difference, however, is likely to be higher in especially vulnerable populations that are almost entirely reliant on external assistance, e.g. IDP and refugee populations.

2. DEFINITIONS OF POPULATIONS WITHOUT ASSISTANCE AND STANDARD IPC POPULATION ESTIMATES

For IPC purposes, the population estimates in need of assistance can be defined simply as the **total number of people in need of humanitarian food security assistance (PiNHA)**.⁵ In contrast, the standard IPC population estimates in Phase 3 or above reflect the **number of people “in need of action further to the action already taken”** as per the IPC Technical Manual 3.1. This means that some households in Phase 2 may only be in this phase because they have received assistance and would therefore require continued support. As a result, standard IPC population estimates do not reflect the total number of people in need of assistance, but rather a snapshot of the assessed food security situation in the current or projected period, regardless of whether assistance is provided or expected to be provided.

3. USES OF PINHA AND STANDARD IPC POPULATION ESTIMATES

IPC products—including reports, population tables and maps—provide decision makers with a wide range of essential information. When reviewed together, they offer the following types of insights for programming:

- Situation snapshots with a validity period for current and projected periods, including information on the key drivers of food security, and most affected populations.
- Information on significance of provided assistance (HFSA bags as mapping symbols).
- Population tables with the number and percentage of populations in different phases by analysis area, and the total number and percentage of population in Phase 3 or above by analysis area.

Together, this information gives decision makers a comprehensive overview of the food security situation, enabling them to plan and adjust assistance by geography, severity and magnitude. It allows comparison of phase classifications, population in Phase 3 or above and the role of assistance against current or planned targeting to identify remaining gaps. However, because standard IPC estimates capture only those who need assistance beyond what has already been provided, they do not reflect the total number of people for whom assistance must be programmed.

The additional PiNHA table complements the information provided in the standard IPC products. It presents the total number of people in need of HFSA by analysis area for both the current and projection periods. This enables decision makers to plan assistance more effectively, while IPC country teams can use the PiNHA for coordination and fundraising purposes.⁶ PiNHA estimates also support cross-country comparisons for people in need, without the influence of HFSA. However, the PiNHA does not provide information on current or planned assistance programmes or population estimates in the presence of assistance; these remain covered by standard IPC population estimates.

As a result, the standard IPC population estimates and the PiNHA complement one another, and by combining the information from the regular IPC products with the PiNHA table, decision makers have a full suite of information at their disposal.

5. Given that IPC is only estimating populations in presence and absence of assistance, without considering compounding effects of deprivations e.g. in terms of shelter or WASH, the acronym used to describe the populations in absence of assistance is PiNHA to separate it from the sectoral, and intersectoral PiNHA estimates.

6. Further efforts are still required to provide more detailed information to decision-making, such as disaggregation of PiNHA by IPC Phases 3-5.

**Table 1: PiNHA vs. standard IPC population estimates**

Item	IPC standard population estimates	IPC PiNHA estimates
Quantification	Table with breakdown of total population in five phases by analysis area	One number reflecting the total number of people in need of HFSA (in IPC Phase 3 or above) by analysis area
Mapping protocols	IPC classification maps based on the 20 percent rule. Significant HFSA indicated with mapping symbols.	No mapping protocol
Current analysis period	A snapshot in time, regardless of whether there is HFSA.	A snapshot in time without any effects of HFSA
Projection analysis period	A snapshot in time, accounting for HFSA that is planned and likely to be funded and delivered.	A snapshot in time without any effects of HFSA
Used for decision-making	Helps decision makers to identify gaps in terms of quantity and geographical scope of assistance based on IPC phase classifications, population estimates and significance of current assistance.	Helps decision makers to understand total needs in terms of the number of people requiring HFSA.

The IPC provides population figures based on actual or forecasted conditions, without removing the effects of any HFSA. Current analyses and future projections include the effects of humanitarian food security assistance which has been delivered and, for future forecasts, any humanitarian food security assistance that has been planned, funded or likely to be funded and is likely to be delivered. As such, population tables identify those in different severity phases considering the mitigating impacts of any assistance.

Communicating the total PiNHA alongside standard IPC population estimates is particularly important in contexts where large segments of the population receive HFSA. Differences between standard IPC numbers and PiNHA estimates are likely to be greater in areas and among populations that are highly reliant on assistance, such as internally displaced people (IDPs) and refugees. Decision makers need PiNHA information to adequately plan programming for vulnerable populations.

4. CRITERIA FOR SELECTING AREAS FOR PINHA ANALYSIS

Many IPC countries do not have large-scale assistance programmes, and in these contexts, the PiNHA analysis has limited value. As a general rule, PiNHA analyses should be prioritised in countries and areas where food security assistance is significant, based on the following criteria:

- Area is receiving highly significant humanitarian food security assistance in the current analysis period⁷ and/or
- Area is likely to receive highly significant humanitarian food security assistance in the projection period.⁸

The criteria for determining whether HFSA is significant are set in protocol 2.3.k. For PiNHA analysis, the higher threshold is applied—namely, assistance covering at least 50 percent of kilocalorie needs for at least 25 percent of households. The higher cut-off ensures that the assistance provided is substantial enough to enable meaningful improvements in household food security, assuming households are fully able to utilise the assistance they receive.

During PiNHA implementation, there have been situations where analysis teams considered it useful to apply the PiNHA methodology to areas or household groups whose assistance levels do not fully meet the criteria for highly significant assistance. In such cases, it is important for the IPC Technical Working Group (TWG) to assess the potential value added. For example, would the analysis provide valuable information on the vulnerability status of the areas/groups for decision-makers? Further, is the assistance meeting at least one of the two criteria? There may be instances where a smaller share of the population (<25 percent) receives assistance that covers most or all of their food needs. In these situations, conducting a PiNHA analysis may be justified even if the criteria are not fully met.

7. Assistance should be included only if it was delivered shortly before or during the analysis period (typically within 1–3 months) and is actively mitigating food insecurity. The reference period depends on how frequently assistance is provided: a one-month recall is appropriate for regular monthly support, while it may be extended up to three months for less frequent distributions. For example, if aid is delivered every two months, “current assistance” can be defined as the average over the last two months. In such cases, analysts should estimate the average monthly coverage of households while minimising double counting.

8. Assistance to be included in the analysis should be planned, funded or likely to be funded and delivered.

5. PINHA IN COUNTRIES OR AREAS WITH NO LARGE-SCALE ASSISTANCE

The primary utility of the PiNHA is in countries where assistance is highly significant in at least some analysis areas and where standard population estimates reflect the severity of food insecurity in the presence of assistance.

There are many countries or areas with IPC analyses where there are no current or planned assistance programmes, or where assistance reaches less than 25 percent of the population and/or provides less than 50 percent of kcal needs. In these situations, the standard population estimates already reflect the severity and magnitude of food insecurity and therefore effectively serve as the PiNHA. As a result, there is no need to prepare separate PiNHA estimates in countries or areas with no assistance, or where assistance programmes do not meet the criteria for highly significant assistance (at least 25 percent of the population targeted with assistance covering at least 50 percent of kcal needs).

As mentioned in the section above, however, the analysis teams can conduct supplementary PiNHA analysis if there is a clear rationale on its utility for communication and decision-making purposes.

6. PINHA ANALYSIS IN EXCEPTIONAL ANALYSIS PERIOD SCENARIOS

6.1 PiNHA analysis for periods where HFSA criteria are not met

The amount and type of HFSA and the number of beneficiaries typically varies between different periods in a year, depending on seasonality aspects and other factors, such as shocks. This often leads to situations where the assistance levels merit PiNHA analysis in one analysis period but not necessarily in both the current and projection periods.

In these cases, the standard procedure is to conduct PiNHA analysis only for the period(s) where the assistance criteria are met. Analysts have occasionally, however, deemed it helpful to do the analysis even if the criteria are not met in order to facilitate the analysis for the other period. This is particularly the case when the criteria are met only for the projection period, while household data have typically been collected at the beginning of, or prior to, the current analysis period. The household data can normally be quite easily used for PiNHA analysis of the current period, given the proximity of the data collection and expected similarities in the conditions. Use of the same data for the projection period requires consequently extensive nowcasting, as is the case also in standard IPC projection analysis. Given the conceptual challenges of moving directly to a PiNHA analysis for the projection period, analysts have at times begun by conducting the PiNHA analysis for the current period, using it as a reference point for analysing the projection period.

In these situations, the additional PiNHA analysis is likely to be beneficial and to improve the quality of the PiNHA analysis of the projection period. However, because the HFSA criteria are not met for the additional analysis, there is no need for this analysis to be released as part of the IPC analysis brief (unless there are other considerations as noted in section 4. above).

6.2 PiNHA analysis in projection updates

IPC projection updates are a standard feature of the IPC process, especially when projection periods are long, or there are two projection periods in one analysis. If a PiNHA analysis has been prepared for the original projection analysis, analysts and facilitators should take this into consideration when preparing for the projection update. Updating of the PiNHA estimates is also required along with the standard projection analysis, especially in the following cases:

- Population estimates for households in Phase 3 or above in the updated projection differ from those in the original projection.
- Assistance levels may differ from those used in the original PiNHA analysis (and projection analysis). If assistance levels decrease to the point where the PiNHA analysis is no longer warranted, there is no need to update the PiNHA for those areas. Conversely, assistance may increase in some areas that did not require a PiNHA analysis during the original workshop but now do, due to higher levels of programmed assistance.



Typically, a projection update analysis does not include new survey evidence, meaning that the evidence normally used for PiNHA analysis cannot be refreshed. What can be updated, however, are at least two key pieces of information: the population estimates of households in Phase 3 or above, and the data on assistance coverage. These updated pieces of evidence should be compared to the original situation to assess the magnitude of changes. Based on this comparison, and on other essential evidence related to contributing factors—such as shocks—analysts can determine the extent to which the PiNHA estimates should be updated.

If entirely new areas require a PiNHA analysis in the projection period, the worksheets with the available evidence should be prepared for these areas in the same way they were prepared for the original PiNHA analysis areas. In these cases, it is also important to compare the previous population estimates and assistance levels with the updated situation to understand the magnitude of change. It is equally important to understand the rationale for the increased assistance and the targeting principles, in order to assess not only how this affects the share of the population in Phase 3 or above, but also the impact on households in Phase 2 who remain there because of the assistance and are therefore the focus of the PiNHA analysis.

7. FUNCTION 1: CONSENSUS BUILDING

Process for the PiNHA analysis

A PiNHA analysis should be conducted at the end of the regular IPC analysis, after the classifications and population estimates for the current and projection periods have been reached. Preferably, the decision on conducting a PiNHA analysis should be made by the TWG in the preparation phase of the IPC analysis, based on information available on scale and coverage of assistance.

The same analysts who conducted the original IPC analysis should ideally also carry out the PiNHA analysis for those areas. Given the analysts are already familiar with the areas and the data available, the PiNHA analysis is not expected to take a considerable amount of time—at most an extra day at the end of the IPC analysis workshop.

Because of the specific nature of the PiNHA analysis, it may also be necessary to draw on the expertise of programme personnel of agencies providing HFSA in the country being analysed. They are likely to have the required information on assistance deliveries, their timing, targeting principles and practice, and monitoring reports detailing specific information, such as how households have used the assistance provided.⁹

8. FUNCTION 2: OVERVIEW OF APPROACHES TO CALCULATE THE PINHA

8.1. General principles

The overall principle for estimating the PiNHA is the convergence of evidence. The purpose is not to rely on a single methodology for generating PiNHA estimates; rather, the analysis should draw on multiple methodologies and approaches, depending on data availability and the suitability of each method for the country context.

In simple terms, analysts should identify the share of households classified in Phase 2 that need to be added to those in Phase 3, 4 and 5 to estimate the PiNHA.

In other words, analysts should estimate the PiNHA through a two-step sum:

- 1. Assign all households classified in Phase 3, 4 and 5 automatically to the PiNHA.** All households displaying or likely to display outcomes of Phase 3 or above—including moderate or large food gaps and crisis or emergency coping behaviours—should be considered as part of the PiNHA. This applies regardless of whether they are currently receiving, or will receive, humanitarian food security assistance. For example, if an area has 30 percent of households

9. For example, agencies have post-distribution monitoring (PDM) reports that may be useful for PiNHA analysis. PDM reports track e.g. how households use the assistance they receive, providing valuable information for PiNHA analysis. Analysts are encouraged to contact the programme staff of agencies providing assistance, and to ask for PDM and other relevant reports for PiNHA analysis.

in Phase 3 or above, all these households are included in the PiNHA. Because the PiNHA represents the number (or percentage) of the population in Phase 3 or above, no additional analysis is required to determine whether households in Phase 3 or 4 would have been in a more severe phase without assistance.

2. **Assess what proportion of households in Phase 2 are receiving assistance and would likely be in Phase 3 or above in the absence of assistance.** For example, in the same area discussed above where 70 percent of households are in Phase 1 or 2, analysts should estimate what proportion of these households are receiving significant HFSA—likely preventing them from manifesting outcomes of Phase 3 or above.

In mathematical terms, the PiNHA is calculated as:

$$\text{PiNHA} = \text{Sum} (\text{Phase } 3_{\text{Tot}} + \text{Phase } 4_{\text{Tot}} + \text{Phase } 5_{\text{Tot}}) + (\text{Phase } 2_{\text{HFSA}})$$

Where:

- *Phase 3_{Tot} is the total population in Phase 3, independent of assistance status.*
- *Phase 4_{Tot} is the total population in Phase 4, independent of assistance status.*
- *Phase 5_{Tot} is the total population in Phase 5, independent of assistance status.*
- *Phase 2_{HFSA} is the share of population receiving significant humanitarian food security assistance whose food security status has likely been improved by at least one IPC phase due to that assistance.*

Conceptual clarification:

The PiNHA formula assumes that households receiving HFSA appear in Phase 2 because their conditions have been improved by the assistance. However, in some contexts, HFSA may be delivered as part of a broader package of interventions—including resilience programmes—that lifts households all the way to Phase 1. The principle remains the same:

The term *Sum (Phase 3_{Tot} + Phase 4_{Tot} + Phase 5_{Tot})* is obtained from the population tables generated in the IPC Analysis. The term (Phase 2_{HFSA}) is always lower than or equal to the total number of households in Phase 2 that are receiving assistance (Ph2_{HFSA}). Taking this and the above equation into account, it is possible to establish two conditions for the PiNHA number:

$$\text{PINHA} \leq (\text{Ph3+}) + (\text{Ph2})_{\text{HFSA}}$$

$$\text{PINHA} \geq (\text{Ph3+})$$

Analysts can use the above conditions to check whether a PINHA number is plausible.



8.2. Approaches to estimating the PiNHA¹⁰

Analysts should make use of the full range of information available to arrive at a convergence of evidence about the size of the population in need. Different approaches make use of various kinds of information, such as household survey data, monitoring information based on beneficiary or e.g. focus group interviews, implementing reports of HFSA delivery, and key informant information. Analysts should start by calculating the current PiNHA based on actual outcomes, food assistance deliveries and any other information, and then to estimate outcomes as expressed in IPC projection analyses, including any changes in drivers, and to estimate the PiNHA for the projection period.

Below is a description of several methods to determine the PINHA. It is recommended that the Analysis Team uses simultaneously many methods presented hereafter depending on the type of information available and reaches consensus on which PINHA number should be retained. In this process the plausibility checks indicated in the Overview section above can be a useful resource. The choice of methods should be guided by the available data; it is not necessary to apply all of the methods presented below.

8.3. Assessing share of households in Phase 2 with HFSA

A. Analysts should start by identifying the share of households displaying outcomes of Phase 2 according to each piece of the direct outcome evidence that is available.

1. Outcomes of Phase 2 include:
 - i. Dietary energy intake greater than 2,100 kcal per person per day
 - ii. Acceptable Food Consumption Score
 - iii. Household Dietary Diversity of 5 to 12 groups but deterioration of ≥ 1 food group from typical
 - iv. Reduced Coping Strategies Index 4-18
 - v. Household Hunger Scale of 1
 - vi. Food Insecurity Experience Scale < -0.36
 - vii. Stress livelihood coping strategies

Given that there is no separate cut-off for Phase 2 for FCS, and that for HDDS Phases 1 and 2 are typically combined, analysts are advised either to leave those two indicators out of this analysis, or to treat them with caution, with the knowledge that some households in this category are likely to be in Phase 1 rather than in Phase 2.

2. Analysts should determine the share of households with these indicator values who received assistance of a highly significant quantity (i.e. implementing partners confirm that assistance delivered is greater than 50% of caloric needs or households estimate that assistance is the main source of food or income).

This information on assistance received by households assessed should be available in the household survey, typically through different questionnaire modules:

- Questions on type of assistance received (in particular in-kind food rations, cash, and food vouchers)
- Questions on main food sources (food assistance as the main source of food esp. for most common food assistance items such as cereals, pulses or oil)
- Questions on main income sources (cash assistance, or sale of assistance)

9. A tool has been developed to automate the analysis of data based on the five most common methods (share of households in phase 2 with HFSA, outcome indicators among households that have or not received assistance, ECMEN without assistance, main food and income sources and information on HFSA), it can be downloaded at this link: <https://www.ipcinfo.org/ipcinfo-website/resources/resources-details/en/c/1156348/>

- By using the information available in the survey, a variable should be created in the dataset that divides the households into two groups:
 - Households who have received HFSA
 - Households who have not received HFSA
- This variable can be subsequently used to conduct the analysis below, and analysis explained in section 8.4.

B. The share of households in Phase 2 receiving highly significant assistance functions as a proxy for the maximum share of households that should be moved from Phase 2 to Phase 3+ to arrive at PiNHA.

Figure 2: Share of households with Phase 2 level outcome indicators who receive highly significant assistance.

	Step A		Step B
Original summary table of direct evidence			
	Phase 2 households (with or without assistance)	Phase 3+ households (with or without assistance)	% of households in Phase 2 receiving assistance
rCSI	27 %	63 %	5 %
HHS	42 %	38 %	11 %
LCS	15 %	77 %	4 %

C. Estimate population in need for current period: Using the share of households with highly significant assistance and Phase 2 level outcome indicator values to guide the discussions on the share of households to be allocated to Phase 3+ for PiNHA. This information should be used together with other evidence and approaches to arrive at the final conclusion on the share of households to be allocated.

D. Estimate population in need for projection period: Using the evidence available, information on share of households in Phase 2 with HFSA meeting at least 50 percent of kcal needs, the PiNHA for current period, as well as information on seasonality, expected shocks and other factors to estimate PiNHA for projection period.

Key considerations for analysts:

- This is a relatively simple and intuitive approach. Data is practically always available, and analysis can be done for different outcome indicators.
- Analysts should be aware that this approach assumes that all households in Phase 2 who receive assistance would potentially be in a worse Phase without it. Hence, they are automatically included in the difference to indicate the potential maximum share of households to be allocated to PiNHA. As such the approach may lead to overestimation of population in need as some households that received assistance may not move towards a worse Phase in absence of assistance. It is important that analysts consider alternative strategies that households could employ, the depth of the need and the amount of assistance to conclude what proportion of households would move to a worse Phase.
- This method is fully applicable only if the HFSA levels are the same during the reference period of analysis and at the time of data collection. There are, however, often situations where the assistance levels at the time of the data collection differ from those in the analysis period. In these situations, analysts should consider the following factors:



- How large is the difference? If it is relatively small (e.g. difference of <20 percentage points in the share of beneficiaries) it is likely to be possible to use the produced tables as indicative evidence for the analysis. If it is larger than that, analysts should treat the evidence with caution (or potentially even discount it in case of very large differences) and consider e.g. the following questions:
- What is known about the assistance and the targeting? Are the noted changes due to different size or type of assistance, or there are changes in targeting criteria, compared to assistance provided in the data collection period? Having more detailed information on the assistance provided will help the analysts to compare the situation at the time of data collection and to assess potential impact on the PiNHA estimates.
- For example, if the ration size decreases from 75% to 50%, but the share of beneficiaries remains the same, the difference is not likely to have a meaningful impact on PiNHA analysis given that the assistance is considered highly significant in both cases and households are likely to be quite dependent on it. If, however, the share of beneficiaries differs considerably (for example during the data collection 50% of the households received assistance and in the current analysis period it is 25%), analysts should be mindful of this when reviewing the evidence. Information on targeting criteria, for instance, will help in understanding the vulnerability characteristics of the households. Further, it may be helpful to review the distribution of the households with assistance across IPC Phases in terms of outcome indicators, and to assess how that distribution might change if the share of households is reduced from 50% to 25%.
- There is likely to be variability in the effect of HFSA within the same indicator and variability between indicators at the household level. Yet little is known about this variability. This lack of understanding adds uncertainty to the process of allocating households in Phase 2 to PiNHA, even if good information on assistance provided is available.
- There are two options for assessing the share of households in Phase 2 receiving assistance:
 1. Using as the weight the share of households getting assistance from the food security survey - this is the default option and requires no additional analysis.
 2. If the actual share of households getting assistance is considerably higher than the share of households reporting having received assistance (e.g. by 20 percentage points or more), the actual share should be used as the weight in the calculations.

8.4. Using values of households not receiving assistance as a proxy for the entire population - only for humanitarian assistance targeted by areas

A. Divide the sample population in two groups: those who did not receive assistance and those who received assistance that covered at least 50% of their kcal needs.

B. Run analysis of outcome indicators (typically FCS, HDDS, HHS, rCSI and LCS) **for the two groups**

Figure 3: Outcome indicators with and without assistance

Ampanihy with assistance						Ampanihy without assistance					
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5		Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
FCS	14 %		29.8%	56.1%		FCS	1.8%		8.1%	90.1%	
rCSI	16.2%	42.3%	41.5%			rCSI	5.4%	26.1%	68.5%		
HHS	37.9%	11.0%	49.9%	0.8%	0.5%	HHS	18.9%	10.8%	64.9%	1.8%	3.6%
LCS	18.8%	21.7%	22.2%	37.3%		LCS	21.6%	1.8%	56.8%	19.8%	

C. Use the indicators for households without assistance as a basis for estimating PiNHA for current analysis period, and follow the same process outlined in section D for approach 1 for estimating projected PiNHA

Key considerations for analysts:

- The approach is very simple and fast and requires minimal statistical analysis.
- Data availability is good, i.e. the same outcome indicators that are used for normal acute analysis can always be applied.
- Based on a large assumption that all households are in a rather similar situation without assistance (does not apply in situations where HFSA is targeted but may apply in high level emergencies where most households need assistance and with blanket assistance programmes).
- Indicators may reflect HFSA differently, albeit there is little information available on potential differences.
- Based also on an assumption that households getting assistance have better outcome indicator values than households not getting assistance (assumption may not be true in all contexts).
- If households receiving assistance access varying amounts of HFSA covering between 50% and 100% or their kcal needs, the impacts of the assistance on their food security status (and indicator values) may differ.
- Furthermore, there may also be some household groups in the area who receive HFSA that covers less than 50% of their kcal needs. Yet, if they report receiving assistance in the household survey, they are allocated to the group receiving assistance, which may affect the results of the indicator analysis (assuming households receiving less assistance are likely to have smaller differences in indicators compared to the households not receiving assistance).
- Can be used as one piece of evidence if comparison shows that households receiving assistance have better outcomes than households not receiving assistance but should not be used as the only piece of evidence for PiNHA.
- Plausibility checks can also be applied here if the number of households in Phase 2 receiving assistance is provided.
- The number of households not receiving assistance needs to be equal or higher than the minimum sample size required by IPC Protocols. If only small groups, e.g. 25% of households are receiving assistance, it may also be difficult to have a sufficient sample size of households receiving HFSA. This should be verified separately for areas undergoing the analysis.

8.5. Analysis of households' resources against needs' thresholds

ECMEN (Economic Capacity to Meet Essential Needs)¹¹

A detailed methodology to **calculate food and non-food expenditures to assess overall economic capacity to meet essential needs, while removing any received assistance**. As a prerequisite for the analysis data from the following survey modules should be available:

- Expenditure on food items (7 or 30-day recall)
- Expenditures on non-food items (30-day recall)
- Expenditures on non-food items (six-month recall)

11. Essential Needs Assessment. Guidance Note 2020 from WFP is available [here](#). Short guidance with links to useful resources, including survey module, SPSS syntax and STATA do file are available [here](#)



The basic analysis approach for ECMEN is below:

- A. Identify the relevant MEB** (information is often available from Cash Working Group).¹² Given that MEB is usually calculated for a 30-day period, any expenditures with a longer recall period should be converted to a one-month period to allow comparison to the MEB.
- B. Aggregate expenditures** to establish household economic capacity. All recurrent and regular food and non-food expenditures made in cash, as well as the estimated value of consumption from own production should be included. Furthermore, purchases made with credit are included, whereas expenditures made with gifts or assistance are excluded (i.e. if a household has received cash assistance, the amount of assistance should be deducted from total expenditures).
- C. Compare the economic capacity of each household against the MEB** to establish whether a household is above this threshold, i.e. whether it can meet its essential needs.
- D. Produce the ECMEN indicator** by calculating the percentage of households whose economic capacity falls below, and above the MEB threshold.
- E. To assess whether households are able to meet the bare minimum needs the cut-off used (if available) should be SMEB, i.e. survival MEB.** If both cut-offs are available, it is useful to find out what expenditures have been included in each cut-off in order to select the most appropriate one.¹³ Alternatively, analysis can be run with both cut-offs and presented to the group conducting the PiNHA analysis.

Figure 4: Example of ECMEN results

ECMEN	Below MEB cut-off	Above MEB cut-off
Betioky	35 %	65 %

Key considerations for analysts:

- Requires that ECMEN and assistance modules are collected, as well as a food MEB/SMEB (survival minimum expenditure basket) cut-off at national or sub-national level.
- Provides clear results (one number).
- Requires statistical analysis capacity.
- Has specific data needs in terms of expenditure module (calculation of indirect expenditures such as value of food items consumed from own production and/or from hunting or gathering).
- Should be used in combination with LCSi and/or the debt indicator to identify whether households are depleting their long-term capacities in order to meet their essential needs.

12. The [CALP network](#) is a useful resource for SMEB/MEB related documentation.

13. For each analysis using the ECMEN approach, analysts should clarify within the country the expenditures that are included in the SMEB/MEB cut-off used. From the food security perspective, the expenditures to be included should cover food needs for 2,100 kcal/day/person, and costs of water and food preparation.

8.6. HEA (Household Economy Analysis)

The Household Economy Approach is a livelihoods-based framework for analysing the way people obtain access to the things they need to survive and maintain their livelihoods. At the heart of HEA is a depiction of how people get by from year to year and of the connections with other people and places that enable them to do so. This is called the Baseline and has three components: livelihood zoning, a wealth breakdown and an analysis of livelihood strategies for each of the identified wealth groups.

HEA informs food security analysis and early warning by investigating – through a process called “Outcome Analysis” – how baseline access to food and income might change as a result of a specific hazard such as drought or as the result of a positive change, such as provision of HFSA. Because both the Baseline and the Outcome Analysis convert households’ resources and needs into caloric equivalents, it is possible to assess the degree to which household resources (either earned, produced, or received) meet their “survival”¹⁴ and “livelihoods protection”¹⁵ needs.

How HEA can inform PINHA estimates

When completing Outcome Analysis, analysts can run the analysis with and without HFSA. This allows the Outcome Analysis to reflect the degree to which households would or would not meet their livelihood protection and survival needs, under conditions in which HFSA is provided, and under conditions under which HFSA is not provided.

Outcome Analysis results are then applied to population data to provide estimates of the number (or percentage) of people who require HFSA. When Outcome Analysis without HFSA is applied to population data, this represents a PiNHA estimate, and when Outcome Analysis with HFSA is applied to population data, this represents standard HEA indicator results for IPC analysis purposes.

Key considerations for analysts:

- With the information available, analysts will need to determine how much HFSA to include in their analysis when running standard HEA outcome analysis. Likewise, analysts will need to make decisions about which wealth groups they believe are receiving assistance.
- It is not necessary to assume that an entire wealth group is receiving HFSA in order to estimate outcomes for those fractions of the wealth group that are receiving HFSA.
- In some cases, there is significant uncertainty about levels of HFSA and concern that different HFSA assumptions may lead to significant differences in Outcome Analysis results. In these cases, analysts can conduct sensitivity analysis to identify how sensitive the OA is to these assumptions and provide a more robust evidence base from which to assess the likely range of outcomes.
- Outcome Analysis is the only kind of evidence in the IPC AFI Reference Table that provides direct evidence of first-level outcomes in future periods. As such, if available, it can be used as a key piece of evidence for estimating PiNHA and standard population estimates in projections analysis.
- Occasionally, HEA Baselines are conducted in years when HFSA is provided. This can add an additional layer of complexity in determining whether the HFSA provided should be considered.
- Outcome Analysis is only as strong as the quality of the inputs included in running the analysis.
- Outcome Analysis should be run by well-trained HEA analysts, and information on data feeding into the analysis, assumptions and problem specifications used should be transparent and shared with the IPC analysts.

14. The Survival Threshold is the amount of food and cash income required to ensure survival in the short-term, i.e. to cover minimum food and non-food needs. The “survival non-food” category generally includes the costs of preparing and consuming food plus any cash expenditure on water for human consumption.

15. The Livelihoods Protection Threshold is the amount of food and cash income required to protect local livelihoods. This means a level of income that gives people the option to maintain expenditure on basic non-food goods and services at the levels prevailing in the reference year (assuming the reference year was neither especially good nor especially bad). Besides these essential non-food goods and services, the Livelihoods Protection expenditure basket can also contain a number of items that – while not absolutely essential for survival – can nonetheless be considered essential in terms of sustaining a minimum locally acceptable standard of living.



8.7. Information on food and income sources

Use of different information sources such as income and expenditure surveys to assess food and income sources and to what extent households can meet their food needs.

Another option is to use the recent food security survey data on income sources to assess the share of households who a) have a stable income source (e.g. salaried households) and hence are not likely to require assistance and b) are either dependent on external assistance (e.g. HFSA, gifts, begging and hence should be included in PiNHA) and c) households who otherwise have unstable or low income and from whom at least a part should likely be included in the PiNHA.

Key considerations for analysts:

- Use of income and expenditure surveys or similar is an option if data is recent and available.
- Basic data on income sources is typically readily available from standard food security surveys. For added precision income sources can be cross tabulated with self-reported data on assistance.
- Provides partial information for estimation of PiNHA, but helps in assessing the extremes, i.e. especially the share of population that should not be included in the PiNHA and the share that at least should be included.
- Should be used in connection with other methods, as part of convergence.

8.8. Information on Humanitarian Food Security Assistance (HFSA)

A. Assess humanitarian food security assistance delivered in past few months (current) and planned deliveries (projected): Assess magnitude and size of deliveries as well as issues related to sharing, diversion, targeting, timeliness etc. and conclude if/what proportion of households would be included in PiNHA. Analysts should use for example the following information sources: survey data on assistance, post-distribution monitoring (PDM) reports and statistics on assistance deliveries by implementing agencies. These sources contain quantitative data that is representative of the population of households in the area or of households benefiting from assistance. Examples of useful data that may be found in them are listed hereafter. The list does not intend to be exhaustive and other useful elements of information not listed here may also be available.

Quantitative approaches:

- *Food security status according to different outcome indicators.* Information on IPC direct evidence of food consumption and livelihood change may be available, allowing analysts to estimate the share of food secure households that are receiving assistance. It is important that analysts discuss to what extent these food secure households benefiting from HFSA are food secure because of previously received assistance and avoid assimilating food secure households with households that would be in Phase 2 even if assistance was removed.
- *Share of households using assistance as a main food or income source.* Household surveys typically include questions on food and income sources. Analysts should review this data in more detail to see what proportion of households are highly dependent on assistance by reporting that e.g. the main source of cereal, pulses or oil is in-kind food aid, or that cash assistance is one of the three main sources of income. This information can be cross-checked with information on food consumption and livelihood change indicator status to assess what share of these households is likely to already be in Phase 3+, and what share in Phase 2, with the latter group potentially to be included in PiNHA.

Qualitative approaches:

- *Typology and vulnerability conditions of households receiving HFSA.* Knowing the criteria set to access the assistance (e.g. being a displaced household) and specific vulnerability conditions of the household (e.g. having chronically ill, or elderly members, or being recently displaced) can be helpful to get a general idea on how likely it is that households in Phase 2 would shift to Phase 3+ in absence of assistance.
- *Share of households satisfied with the quantity of commodities received and reason for dissatisfaction.* A high share of households dissatisfied because quantity received will not last until the next distribution may indicate small differences between the PiNHA and the P3+.

- *Proportion of households reporting to have received less than their entitlement.* Similarly to the previous point, a high share limits the difference between PiNHA and P3+.
- *Concerns about selection of beneficiaries.* This information may be useful to ascertain whether targeting could be an issue.
- *Proportion of households reporting why food is not reaching intended beneficiaries.* Similarly to the previous point, it is possible to know what percentage of households receive assistance without meeting the criteria as perceived by beneficiaries.

B. Compare HFSA deliveries and share of households receiving assistance, and population classified in Phases 3, 4 and 5: Assess how the humanitarian deliveries compare to population classifications and to other available evidence and conclude on PiNHA.

Key considerations for analysts:

- Requires detailed information on HFSA, for current and projected periods, including information on potential problems in reaching beneficiaries and on targeting principles.
- Some HFSA options are predominantly quantitative, others largely qualitative and rely on expert judgement in assessing the PiNHA.
- Should be used in connection with other methods, as part of convergence.

8.9. Household indicator convergence matrix

The Indicator Convergence approach is a process for analysing food security indicators at household level and building out a PiNHA estimate. Under this approach:

- Analysts first converge food consumption indicators at the household level in order to understand what the combined evidence on food consumption suggests about the food consumption status of households.
- Analysts then look at how the livelihood coping converges with the food consumption status of households, to assess how many households may be maintaining food consumption through the use of crisis or worse strategies and to classify households in different Phases, by using the IPC AFI Reference Table to guide the process.
- Once households have been classified, analysts can use the survey data to review the amount of HFSA households reported receiving.
- Based on IPC protocols for what constitutes “significant” HFSA, and the caloric relationship identified in the IPC AFI Reference Table between IPC Phases and Household Economy Analysis thresholds, analysts can decide whether HFSA is significant enough and likely preventing households in IPC Phase 2 from experiencing Crisis (IPC Phase 3) or worse.

Analysts should compare the proportion of households reporting assistance, and the quantity of food they report having received, with delivery reports from implementing agencies. Do these two sources tell a similar story? If not, is there a clear reason why not? For example, if a large quantity of food was reportedly distributed by an implementing partner, but few households report receiving assistance, this discrepancy might be related to the recall period of the survey question (e.g. food was delivered 40 days ago, and the recall period is 30 days) or it is possible that food aid was diverted by local authorities or/and armed groups.

**Table 2: Integrating HFSA into IPC phase classification**

How it works	Example
1. Analysts build a cross-tabulation of food consumption indicators from household-level survey data.	Analysts build a cross-tabulation of indicator results for each combination of FCS, HHS, and rCSI.
2. Analysts classify food consumption for all households with each combination of indicators.	Analysts assess that households with an FCS of 45, rCSI of 2, and an HHS of 0 have food consumption in line with None (IPC Phase 1).
3. Analysts build a cross tabulation of the food consumption classifications and the livelihood coping data.	Cross-tabulation shows how many households with food consumption in line with None (IPC Phase 1) reported livelihood coping in line with Stressed (IPC Phase 2).
4. Analysts classify the IPC Phase for all households with each combination of food consumption classifications and livelihoods coping.	Analysts assess that households with food consumption in line with None (IPC Phase 1) and livelihood coping in line with Stressed (IPC Phase 2) should be classified in Stressed (IPC Phase 2). These households are not part of the Phase 3+ estimate.
5. At each IPC Phase, analysts consult how many households reported receiving HFSA in the survey and the caloric contribution of that HFSA.	Analysts note that of the 20% of households classified in Stressed (IPC Phase 2), half reported receiving a 50% ration, which HFSA delivery reports suggest is plausible.
6. Analysts identify whether the HFSA provided is sufficient to change the IPC Phase classification for households, using the HEA caloric deficit thresholds as a guide.	Analysts identify that a 50% ration would be sufficient to mitigate survival deficits associated with Crisis (0-20%) and Emergency (20-50%). Analysts believe the HFSA is making a difference and therefore includes these populations in the PiNHA estimate.

Key considerations for analysts:

- The cross-tabulation matrix approach provides detailed information on indicator combinations at household level.
- Building of a cross-tabulation matrix with food consumption indicators, another combining indicative food consumption classification with the livelihood coping indicator and deciding on indicative Phase classification for each group of households is an exercise that is complex and requires statistical skills.¹⁶
- This method is applicable only if the HFSA levels are the same during the reference period of analysis and at the time of data collection.
- Proper application of the approach requires information on the quantity of assistance received by households from the household survey. If this is unavailable, the assessment of whether households, or a share of households, in a particular cell/Phase should be allocated to PiNHA or not, is rendered more difficult.
- The cross-tabulation matrix approach is typically not used to estimate populations in IPC Acute Food Insecurity analyses. As a result, the estimates of households in different Phases, arrived at by using the matrix, may differ substantially from the standard IPC population estimates that are used as the starting point for the PiNHA analysis. This is likely to affect the use of the PiNHA estimates provided by the matrix approach.

8.10. Other options

A few other options have been highlighted through partners and in the PiNHA pilots and are listed below:

1. Assessing the IPC phases of households by reviewing how indicators converge towards the IPC phase descriptions, while conducting qualitative analysis on the potential Phase of households in absence of assistance.
2. Use of historical data and trends to guide the analysis, i.e. identifying analogue years or analysis periods to understand current or future (projection) needs. This approach is especially useful if IPC analysis results exist for the analogue year/analysis periods, with no provided assistance. If assistance has been provided in the analogue period, this approach is less useful for PiNHA analysis.

12. The [FEWS NET Matrix Analysis](#) is a useful resource which outlines the different analysis steps that would be required for this method.

Key considerations for analysts:

- Assessing households based on their indicators and assistance status is rather complicated and may provide contradictory or not meaningful results especially if different indicators are not converging. Good analysis capacity and information on households' livelihood situation and overall context is required.
- Situation in analogue years may have been affected by assistance, and this should be considered if using the approach of historical comparisons.

9. FUNCTION 3: COMMUNICATION OF PINHA ESTIMATES

The output of the PiNHA analysis is a population table with essentially three columns: analysis area, % of households in need of HFSA and number of people in need of HFSA. There is no breakdown of the PiNHA by IPC Phases 3, 4 and 5. The PiNHA table should be clearly labelled as 'Total population in need of humanitarian food security assistance for period xx.' If PiNHA is identified for both current and projection periods, two PiNHA tables should be prepared.

As explained, PiNHA estimates complement the standard IPC population estimates and hence do not replace them. If PiNHA estimates are prepared, both should be communicated in the IPC briefs but with clear indications on the nature of the population estimates.

Experience has shown that PiNHA estimates can be communicated in at least two ways in the IPC Analysis Brief: either as an additional column in the standard population table, or as a separate table as in the example below. It is up to the IPC Technical Working Group to select the method that best works for in the context. The numerical PiNHA information is always complemented by a text section in the IPC Analysis Brief, explaining the rationale, process, data used and key findings of the PiNHA analysis.

Table 3: Example table of PiNHA analysis results

Analysis area	Percentage of households in need of HFSA	Number of people in need of HFSA
Tahoma	35%	54,000
Keriga	40%	32,000
Boukara	30%	47,000



10. ANNEX

Example of PiNHA analysis based on PiNHA pilot in Haiti in November 2022

Area of analysis: Urban South

Population estimated in different phases:

Table 1					
Current Sept 2022 - Feb 2023					
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 3 +
25	30	30	15	0	45
Projected Mar - Jun2023					
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 3 +
25	30	30	15	0	45

Method 1

A. Summary table for direct evidence

Table 1A: Direct evidence (N=254)					
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 3 +
FCS	51%		28%	21%	
HDDS	84%		15%	1%	
rCSI	18%	43%	39%		
HHS	39%	17%	40%	2%	1%
LCS	25%	42%	26%	8%	

B. % of households in Phase 2 receiving assistance

Table 1B		
FCS	Phases 1-2	14%
HDDS	Phases 1-2	23%
rCSI	Phase 2	12%
HHS	Phase 2	5%
LCS	Phase 2	11%

C. Estimate PiNHA:

Considering the share of households in phase 3+ is 45% as per the IPC analysis results. Considering the share of households in Phase 2 that receive assistance as presented in table 1B. Provided that FCS and HDDS values of 14 and 23% also include households in Phase 1 with HFSA, it is likely that those values are overestimating the share of households in Phase 2 with HFSA. Based on this and the values of other indicators, it seems that the maximum share of households that could be allocated from Phase 2 to PiNHA is around 10%.

Method 2

The households in the sample were analysed to obtain the summary table of direct evidence of households not receiving assistance. The result is presented in the following table:

Table 2: Direct evidence (N=185)					
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 3 +
FCS	54%		28%	18%	
HDDS	89%		11%	1%	
rCSI	14%	44%	42%		
HHS	44%	17%	37%	2%	1%
LCS	22%	42%	28%	9%	

FCS is the only indicator that would indicate a plausible value for PiNHA given that it is the only one that shows a value above the share of households in ph3+ (i.e. 46%>45%).

Method 3

The ECMEN value was calculated for the Sud Urbain area and the result was 21%. Such a share of households would not be a plausible value because it is lower than the estimation of households in Ph3+ (i.e. 21%<45%). However, it is worth noting that the ECMEN was not a piece of evidence that was available during the IPC analysis of this area.

Method 4

The analysis team discussed the HFSA interventions in the area and most of its members concluded that poor targeting had been an issue, with an important share of households receiving assistance without being in a situation of real need.

Conclusion

Considering the results obtained in the different methods and the issues related to targeting of the assistance, the team concluded that the **PiNHA in the current and projected period would be 45 percent and as a result the PiNHA estimates were not different from the standard IPC estimates.**