



IPC GUIDANCE NOTE EXPLORING LINKAGES BETWEEN ACUTE FOOD INSECURITY AND ACUTE MALNUTRITION

(April 2024)

WHAT DOES THE IPC TECHNICAL MANUAL VERSION 3.1 SAY ABOUT THE LINKAGES BETWEEN AFI AND AMN CLASSIFICATIONS?

- IPC Technical Manual Version 3.1 provides a conceptual framework and shows the linkages between food security and nutrition. The manual suggests that this conceptual framework should not be used to guide IPC analyses, but rather to inform further analyses of linkages between the different conditions. Refer to page 11 the IPC Technical Manual Version 3.1 for details.

WHAT DOES THIS RESOURCE ADD TO THE MANUAL?

- This document intends to provide guidance on how to explore the linkages between acute food insecurity and acute malnutrition, particularly when the IPC Acute Food Insecurity and Acute Malnutrition classifications for the same areas at the same point in time show different phase classifications.

EXPLORING LINKAGES BETWEEN ACUTE FOOD INSECURITY AND ACUTE MALNUTRITION WHEN CONDUCTING ANALYSES USING IPC AFI AND IPC AMN SCALES

• Section Use

This guidance note provides information on how to explore the linkages between IPC Acute Food Insecurity (AFI) and IPC Acute Malnutrition (AMN) scales. This document should be used when the AFI and AMN analyses show different phases for the same areas, especially when there is a difference of two or more phases between AFI and AMN classifications. It focuses on exercises in which IPC AFI and IPC AMN analyses are run concurrently or consecutively. Nevertheless, it may also be used in contexts where only IPC AFI analyses are conducted and there's divergence between AFI and AMN – e.g. AFI phases and AMN phases (based on the acute malnutrition thresholds in the AFI reference table) don't match.

• Section Contents

1. Introduction
2. Divergence between AFI and AMN
3. Exploring linkages between AFI and AMN
4. Scenario 1: area with high AFI but low AMN phase classifications
5. Scenario 2: area with low AFI but high AMN phase classifications
6. Scenario 3: area with corresponding AFI and AMN phase classifications
7. Analysis process for exploring the linkages between AFI and AMN
8. Communicating the linkages between AFI and AMN

CONTACTS

For queries or to request support contact the IPC Global Support Unit at info@ipcinfo.org.



Introduction

The IPC Acute Food Insecurity (AFI) and the IPC Acute Malnutrition (AMN) scales implemented in various contexts often show different AFI and AMN phase classifications. For example, according to the IPC AFI and IPC AMN analyses conducted in the nine districts of the Karamoja region of Uganda in 2020, only three districts were classified in corresponding phases across both scales. Similarly, of the 53 provinces included in the Cadre Harmonisé (CH) analysis in Burkina Faso, 22 provinces showed different phases compared to the IPC AMN. This divergence between the AFI and AMN classifications is often observed in all contexts where AFI and AMN are conducted simultaneously.

Conceptually, acute food insecurity is considered a contributing factor to acute malnutrition; deterioration in the acute food insecurity situation is expected to have an impact on acute malnutrition. In practice, however, this assumption does not always hold true.

In the case of the analyses conducted in Karamoja in 2020, three districts showed corresponding phase classifications in 2020. The acute food security situation deteriorated in one in 2021 and was then classified a phase higher in the IPC AFI, even though the IPC AMN classification remained the same. In the second district, while the acute malnutrition deteriorated and the district was classified at a higher phase in the IPC AMN analysis in 2021, the IPC AFI remained the same. These divergences between the IPC AFI and the IPC AMN scales have been observed in all countries where comparable data on AFI and AMN classifications exists. Furthermore, some areas remain in high IPC AMN phases over time, regardless of the changes in IPC AFI phase classification.

Therefore, there is a demonstrated need to provide guidance to IPC facilitators and analysts on how to explore the linkages between IPC AFI and IPC AMN classifications and provide explanations, particularly when the classifications show different phases over time.

The primary purpose of these guidelines is to better communicate the differences between the IPC AFI and IPC AMN classifications where they exist.

Divergence Between Acute Food Insecurity and Acute Malnutrition

Based on the existing academic and grey literature, the relationship between acute food insecurity and acute malnutrition is unclear (see [AFI-AMN literature review discussion note](#)). Although different food consumption indicators [e.g., Household Dietary Diversity Score (HDDS) and Food Consumption Score (FCS)] from cross-sectional surveys can be found to be associated with acute malnutrition, the relationship is not consistent in all contexts. The same food security indicator associated with acute malnutrition in one survey from an area at one point in time, is not associated with acute malnutrition at a different point in time in the same area. Another [analysis between AFI and AMN phases in Guatemala](#) shows an inverse relationship between acute food insecurity and acute malnutrition. Even when there is an association between one food security indicator and acute malnutrition, it is not necessarily an indication of causality. It should be noted that food insecurity is one of the several drivers of acute malnutrition and that the relationship between acute malnutrition and acute food insecurity are context specific and temporally dependent. It is therefore important to conduct a trend analysis.

This guidance note is therefore intended to help IPC facilitators and analysts to identify what elements to look at when reviewing the results of the IPC AFI and the IPC AMN analysis and how to provide a narrative explanation on both in the IPC communication briefs. This guidance note is not intended to provide information on how to find correlations or associations between different acute food security indicators and acute malnutrition.

Divergence is defined as **difference of at least two phases or more between the IPC AFI and IPC AMN classifications**. While it is necessary to explore the linkages when there are at least two phases or more difference between the IPC AFI and IPC AMN classifications, this guidance may also be used to explore the differences between the classifications when there is one phase difference. However, it should be noted that a difference of one phase between the IPC AFI and IPC AMN is considered not unusual in any setting.



EXPLORING THE LINKAGES BETWEEN AFI AND AMN

In order to better help the IPC facilitators and analysts exploring the linkages between the IPC AFI scales, this guidance note is structured into three scenarios based on the different IPC phases:

- 1. Scenario 1:** area with high AFI phase and low AMN phase (divergence)
- 2. Scenario 2:** area with low AFI phase and high AMN phase (divergence)
- 3. Scenario 3:** area with corresponding AFI and AMN phases classifications (no divergence)

While it is more important to focus on scenarios one and two, all IPC AFI and IPC AMN analyses should always provide specific information on areas that are classified in Phase 3 or above and fall under scenario three. It should be noted that the following criteria should be met before the AFI-AMN relationships are explored:

- a. Both AFI and AMN analyses are conducted for the same unit of analysis.** If this is not the case, data will first need to be aggregated (or disaggregated) to a comparable level and classification needs to be done before the linkages are explored. For example, if AFI classification is done at admin level 3 and AMN classification is carried out at admin level 2, food security classifications and population estimates from all admin level 3 units need to be aggregated to the respective admin level 2 before the linkages between AFI and AMN are explored. Provided that there is adequate sample size, the nutrition data may also be disaggregated to admin level 3 and comparison could be made – refer to IPC Technical Manual Version 3.1 for details on disaggregating nutrition data.
- b. Both AFI and AMN should cover similar periods of analysis.** To better explain the similarities and differences between AFI and AMN, they should both cover similar seasons, where there is seasonality. If the IPC AFI and AMN analyses cover different analysis periods, it is difficult to explore linkages between them – see below.

If the above conditions are not met, it would be difficult to compare the results of the two analyses (e.g. AFI and AMN) as there may be other factors that may come in play.

It should be noted that the exploration of the linkages between AFI and AMN are conducted with the assumption that **both AFI and AMN classifications are done correctly** and that the final AFI and AMN classifications should not be changed based on the divergence between the classifications.

SCENARIO 1: AREA WITH HIGH AFI PHASE AND LOW AMN PHASE

Example

According to the CH analysis of 2022 in Sierra Leone; Kailahun province was in IPC AFI Phase 3 (Crisis) in terms acute food security while acute malnutrition levels indicated IPC AMN Phase 1 (Acceptable).

In this scenario, the severity of the acute malnutrition was lower compared to the severity of acute food insecurity. The following should be considered when exploring the linkages between AFI and AMN in this context.

- 1. Review the historical data on acute food insecurity and acute malnutrition** and how the historical data (from the same season) compares to the current situation – i.e., whether acute food insecurity has been higher than acute malnutrition or if there's sudden deterioration in acute food insecurity currently. If there's recent deterioration in acute food insecurity, this may potentially affect the acute malnutrition projections. If the acute food insecurity has historically been higher compared to the acute malnutrition, it may be an indication that the acute malnutrition situation is mitigated by other factors such as better care practices, improved public health conditions, etc. An analysis of historical trends of these contributing factors would help explain the divergence between acute food insecurity and acute malnutrition in these cases.
- 2. Compare the *indicative food consumption phase* with the **IPC AMN phase**** rather than the final AFI phase. In some cases, the indicative food consumption phase is aligned well with the final AFI phase (whereas in other cases the final AFI phase may be higher than the indicative food consumption phase because of livelihood issues, which are less related to acute malnutrition compared to food consumption). Additionally, where historical data exist, it would be useful to look at the relationship between household food consumption (i.e. HDDS) with child food consumption such as Minimum Acceptable Diet (MAD) of children over time (two-three data points in the past with both household and child food consumption data) and check if MAD has changed in relation to HDDS in households with children under five years-of-age.
- 3. Check if the households in the area of analysis prioritize children over adults for food** since in some contexts, at times of scarcity, adults restrict their food intake to feed their children. The data on reduced Coping Strategies Index (rCSI) would provide further evidence on this, i.e., rCSI Q4: 'restrict consumption by adults in order for small children to eat'. If households are exercising this coping mechanism, it's likely to protect the food intake of children and in turn may protect their nutritional status. Note that this analysis is applicable only among households with children.
- 4. Review the public health data** to see if they may help explain the low acute malnutrition levels. Public health data includes functionality of health facilities and coverage, WASH, micronutrients supplementation, immunization, health seeking behaviour, etc. Improved public health indicators would indicate better nutrition outcomes for children despite the poor food insecurity situation and thus help explain the divergence between the AFI and AMN phases. Immunization and micronutrient coverage could be obtained from surveys as well as Health Information Management Systems. WASH data that could be used are percentages of households using drinking water from protected sources, percentages of households using improved latrines, etc. See AMN for additional details on other relevant public health indicators to consider. Where data is available, long term acute malnutrition should be first looked at to see if the acute malnutrition has been persistently low.
- 5. Review the coverage of large-scale humanitarian and social protection interventions targeting children.** If there's large case interventions such as blanket supplementary feeding, micronutrient supplementation, etc., this may mitigate the impact of food insecurity and protect child nutritional status. Note that caring practices, utilization of health care, and maintenance of a healthy environment should also be taken into account when reviewing the large-scale interventions mentioned above.



- 6. Consider potential time-lag explanations between AFI and AMN.** Since acute malnutrition is a secondary outcome, it may take time to manifest. In contexts where there is high acute food insecurity and low acute malnutrition at the time of the analysis, acute malnutrition situation may deteriorate in the future, e.g., during the projection period, especially when there is no adequate response to address acute food insecurity.
- 7. Review the classifications** to think through whether a higher IPC AFI phase is the most appropriate classification for the analysis period. In the absence of evidence substantiating a reasonable conclusion (such as those identified above) that differing classifications are justified, analysts should think carefully through their justification for a higher AFI phase.

SCENARIO 2: AREA WITH LOW AFI PHASE AND HIGH AMN PHASE

Example

Burkina Faso CH analysis of 2022 classified both Bale and Banwa provinces in IPC AFI Phase 1 (None/Minimal), although both districts were classified in IPC AMN Phase 3 (Serious).

In this scenario, the acute malnutrition situation shows worse conditions compared to the acute food insecurity situation in the unit of analysis. It should be noted that when an IPC AMN classification indicates Phase 4 or higher (i.e., when GAM based on WHZ is at or above 15 percent), food insecurity is likely to be one of the key drivers of acute malnutrition. The following may be used to explore the linkages between the AFI and AMN in this scenario:

- 1. Review the historical data on acute food insecurity and acute malnutrition** and how the historical data (from the same season) compares to the current situation, i.e., whether acute malnutrition has been higher than acute food insecurity or if there's sudden deterioration in acute food insecurity currently. If there's recent deterioration in acute malnutrition, it could be the result of deteriorating non-food security-related conditions, but analysts should communicate the evidence used to justify this conclusion if deemed to be case.
- 2. Review the health data to check if there have been any disease outbreaks** such as cholera, measles, etc., affecting children in the unit of analysis. High incidences of childhood illnesses are likely to contribute to high acute malnutrition levels and help explain the higher levels of acute malnutrition phases compared to acute food insecurity – as referred to as the non-food security related factors in the IPC AFI Food Security Analytical Framework.
- 3. Review other public health data** to see if the functionality of health facilities and coverage, existence and coverage of WASH interventions, immunization coverage, etc. High acute malnutrition in a context where acute food insecurity is low is likely a manifestation of non-food security related factors. A review of public health interventions and their coverage may help explain the high AMN phase in comparison to the AFI phase.
- 4. Review the feeding and caring practices towards children.** This includes breastfeeding practices, maternal care and nutrition, health seeking behaviour, healthy environment (mental and physical health) as well as women's workload and mental state, etc. If the feeding and caring practices are poor in the unit of analysis, this is likely to result in high acute malnutrition cases.

5. **Review the household level food consumption indicators (e.g. HDDS, FCS, etc.) and compare them with child dietary intake such as MMF, MDD, and MAD.** Note that this is applicable only among households with children. It has been noted in some contexts that child food consumption is often poor even when the food consumption at the household level is generally adequate. This may imply lack of knowledge in appropriate child feeding practices at the household level. It should be noted that children may be prioritized for food in some contexts, the quality and quantity of food they receive may still be not adequate compared to their requirements.
6. **Review the food assistance provided to households in the area** as the low acute food insecurity may be the result of high levels of food assistance, particularly in camp settings. Additionally, also review the items included in the food assistance to see if they are appropriate for children. In these cases, the coverage and ration sizes of Humanitarian Food Assistance (HFA) should be identified so as to clearly indicate what is considered high levels of HFA.
7. **Review the coping capacity of households** to mitigate food insecurity. Households typically resort to different livelihood and food coping strategies to address food gaps, such as relying on social network, use of savings, cutting the number of meals per day, or attempting to diversify income sources. Some of these coping strategies may lead to worsening care and feeding practices, contributing to increasing malnutrition levels.
8. **Review the coverage of humanitarian and social protection interventions targeting children** e.g. blanket supplementary feeding, micronutrient supplementation, etc. If there are no such interventions or interventions have low coverage, this may have a negative impact on child nutritional status. It should be noted that the poor coverage may be transitory, which may be reflected in a sudden high AMN phase and low AFI phase, or constant where the AMN phase has been higher over time compared to the AFI phase.
9. **Review the classifications** to think through whether a lower AFI phase is the most appropriate classification for the analysis period. In the absence of evidence substantiating a reasonable conclusion (such as those identified above) that differing classifications are justified, analysts should think carefully through their justification for a lower AFI phase.

SCENARIO 3: AREA WITH CORRESPONDING AFI AND AMN PHASE CLASSIFICATIONS

In this scenario, both the acute malnutrition situation and the acute food insecurity situation in the unit of analysis are at the similar levels of severity. At the most severe IPC phases, this would mean Famine, but any Phase 3 or above should be identified and communicated separately in the IPC communication brief.

All areas that fall at or above Phase 3 should be identified and separately highlighted in the IPC communication brief. Additionally, key contributing factors to acute food insecurity and acute malnutrition should also be identified and included in the IPC communication brief.

Where available, historical data on the relationship between acute food insecurity and acute malnutrition should be reviewed and compared to see if they have been in consistently similar IPC phases in the past. If the AFI and AMN phases were dissimilar in the past, compared to the current classification, the outcome (e.g., AFI or AMN) that has deteriorated/improved should be identified and explored further using the approaches outlined in scenarios one and two above, as relevant. The analysis process for exploring the linkages between AFI and AMN is detailed below.



ANALYSIS PROCESS FOR EXPLORING LINKAGES BETWEEN AFI AND AMN

During the analysis, at the group level, analysts should explore the possible and likely linkages between acute food insecurity and acute malnutrition using these guidelines and try to make reasonable comments on that relationship given the evidence available.

If the AFI and AMN analyses are conducted simultaneously, sufficient time should be allocated in the agenda for a joint discussion between analysts on the linkages between the acute food insecurity and acute malnutrition. The discussion should include both AFI and AMN specialists as well as representatives from the health and WASH sectors and should be conducted on a consensual basis.

If AFI and AMN analyses are not conducted concurrently, a dedicated session should take place towards the end of the analysis on the linkages between acute food insecurity and acute malnutrition, particularly focusing on areas which show divergence between AFI and AMN. This discussion should involve all relevant sectors and should be conducted on a consensual basis. However, TWGs should take care to provide explanations that reflect the analysis conducted by the analysis groups, while avoiding a post-hoc justification not considered when the analysis was conducted.

Note that a separate guidance note on process integration with further details is being finalized at present and link to this document will be included in this guidance note as soon it is released.

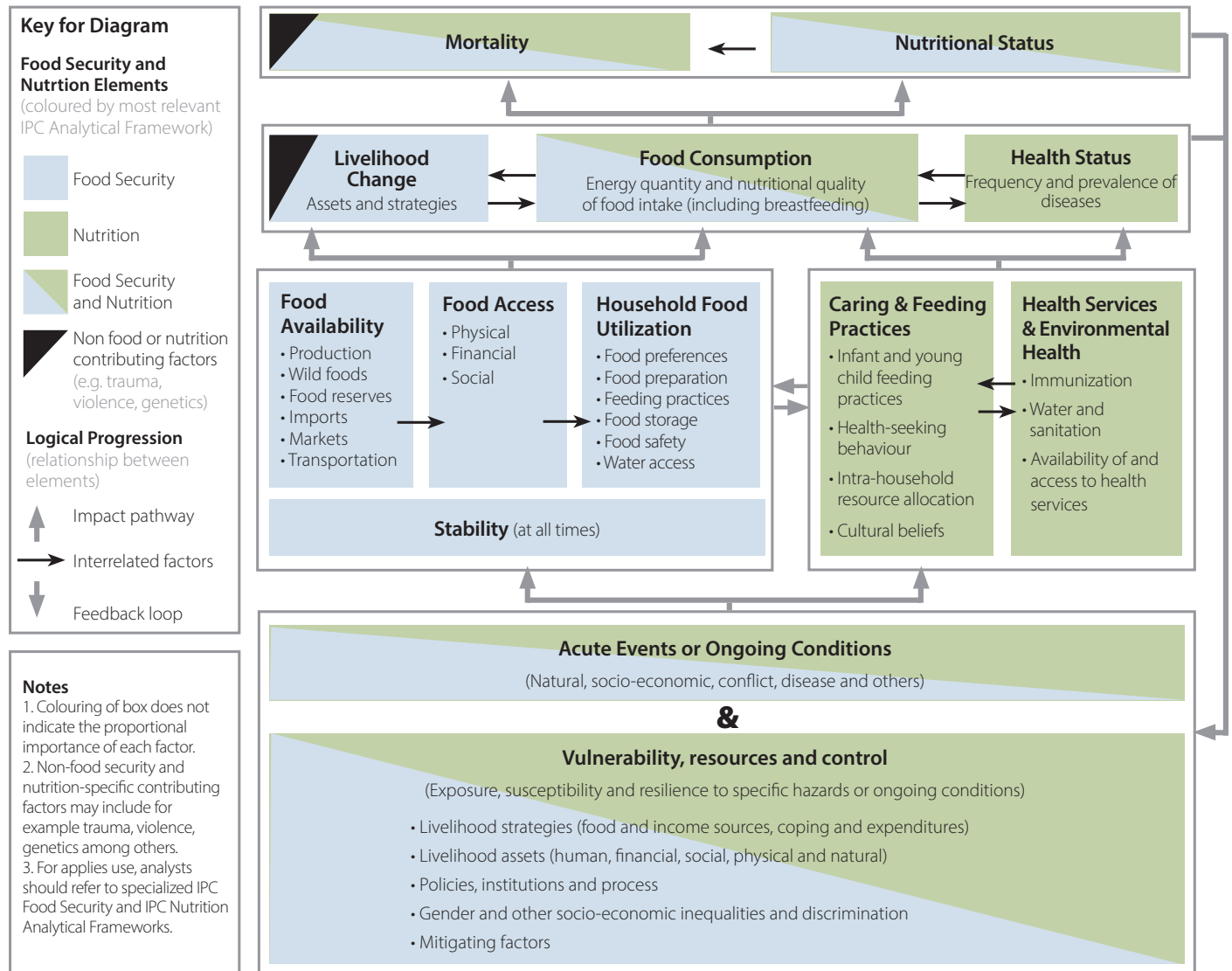
COMMUNICATING THE LINKAGES BETWEEN AFI AND AMN

Once the linkages between the acute food insecurity and acute malnutrition are identified, these should be communicated in the IPC communication brief using the dedicated section set aside for this.

In the case of a joint IPC AFI-AMN communication brief, these can be communicated towards the end of the brief after the overall acute food security and acute malnutrition situations. It is necessary to include a section titled “Linkages between IPC AFI and IPC AMN” and describe the linkages between acute food insecurity and acute malnutrition even in standalone communication briefs that are just focused on AFI or AMN. In this section, analysts should refer to key pieces of evidence that are used to explore the linkages between the acute food insecurity and acute malnutrition.

Annex 1: IPC AFI Analytical Framework

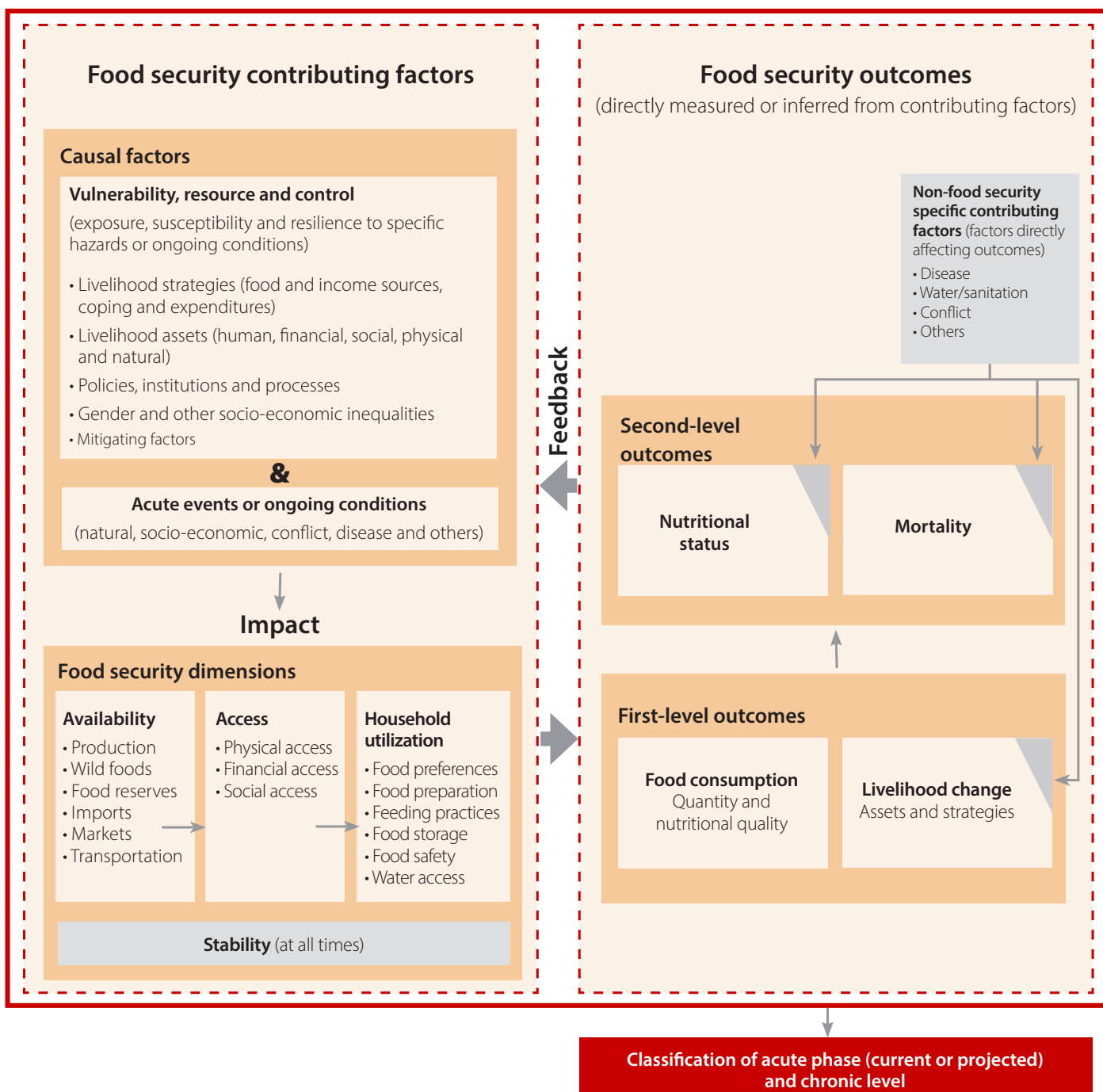
Figure 7: The IPC Integrated Food Security and Nutrition Conceptual Framework (Tool 1)





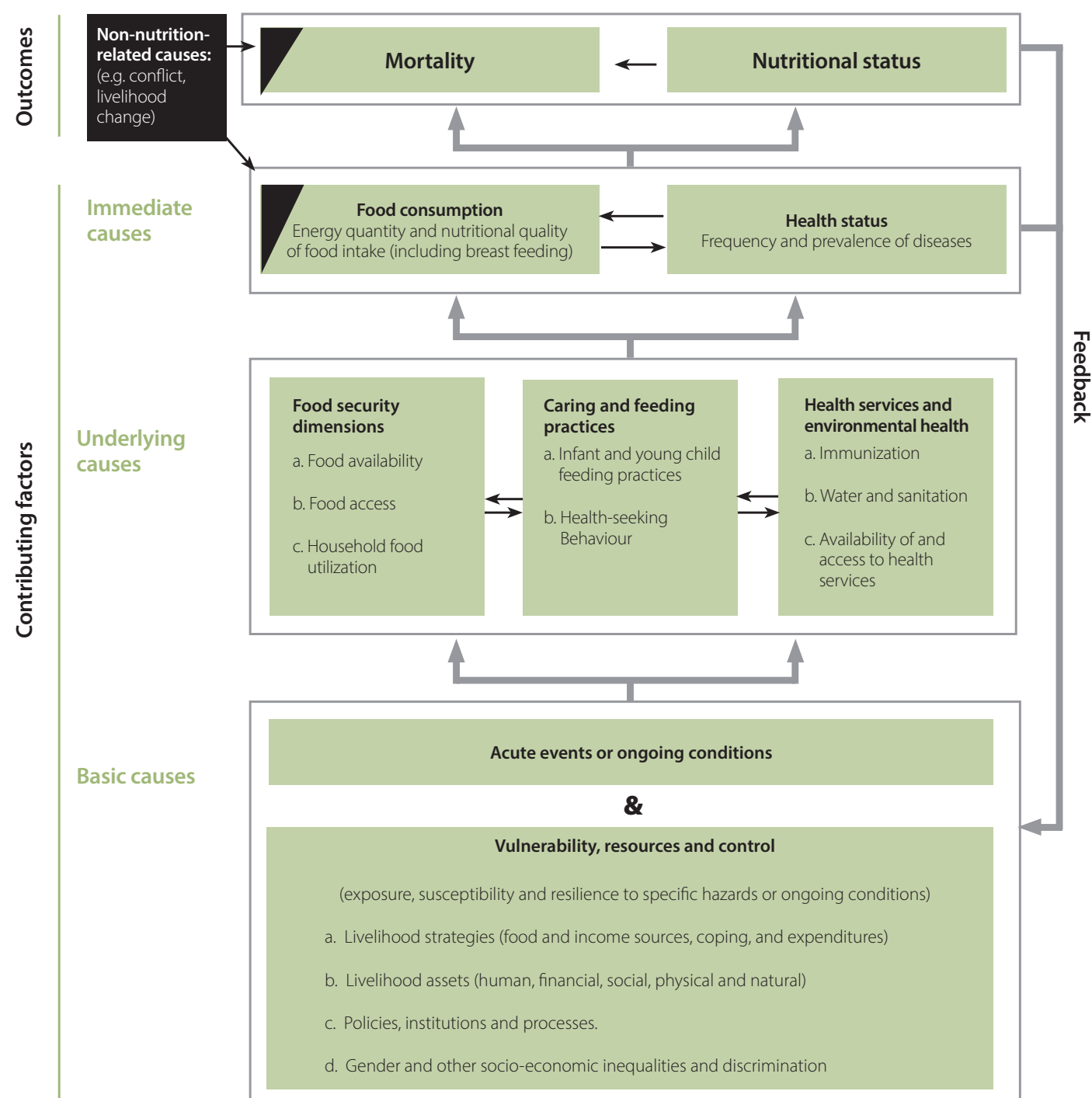
Annex 2: IPC AFI Analytical Framework

Figure 23: The IPC Food Security Analytical Framework (Tool 2)



Annex 3: IPC AMN Analytical Framework

Figure 125: The IPC Acute Malnutrition Analytical Framework (Tool 2)





LIST OF ACRONYMS

AFI:	Acute Food Insecurity
AMN:	Acute Malnutrition
CH:	Cadre Harmonisé
FCS:	Food Consumption Score
HDDS:	Household Dietary Diversity Score
HFA:	Humanitarian Food Assistance
GAM:	Global Acute Malnutrition
IPC:	Integrated food security Phase Classification
MAD:	Minimum Acceptable Diet
MDD:	Minimum Dietary Diversity
MMF:	Minimum Meal Frequency
rCSI:	reduced Coping Strategies Index
WASH:	Water, Sanitation, and Hygiene
WHZ:	Weight-for-Height Z-score