

CARI & IPC Factsheet: Technical Annex

This technical annex serves to accompany the Consolidated Approach to Reporting Indicators of Food Security (CARI) and Integrated Food Security Phase Classification (IPC) Fact Sheet, which summarizes the CARI and how it can be utilised within the IPC. This annex provides additional technical details on the differences between the CARI and the IPC, and a comparison of how each component indicator is used within each method for food security classification.

CARI & IPC: Inputs, Analysis and Results

As explained in the CARI IPC Fact Sheet, the CARI analyses primary data from a single household survey, while the IPC uses a “convergence-of-evidence” approach, incorporating and analysing a variety of secondary information. This is a fundamental difference between the two methods, though many other differences exist. Table 1 outlines the main differences between the CARI and the IPC, related to inputs, analysis and results.

Table 1: CARI & IPC Technical Comparison

| Aspects | CARI ¹ | IPC ² |
|----------------------------|---|---|
| Inputs | | |
| Sources of Information | The CARI analyses a set of primary data from a single household survey. | The IPC meta-analysis consolidates a variety of methods and secondary data. |
| Types of Data Incorporated | <p>Five indicators can be used within the CARI:</p> <ol style="list-style-type: none"> 1) Food Consumption Score 2) Food Energy Shortfall 3) Poverty Status 4) Food Expenditure Share 5) Livelihood Coping Indicator <p>Additional information can be used to develop the analytical narrative which underpins the CARI results.</p> | <p>The IPC considers a wide range of evidence related to food security, nutrition and livelihoods analysis.</p> <p>The entire body of food security evidence is divided into food security outcomes and food security contributing factors.</p> |
| Minimum Data Requirements | <p>To construct the CARI console, the survey tool must generate an acceptable minimum combination of the five food security indicators listed above.</p> <p>The CARI Technical Guidance shows the six possible combinations of food security indicators which will facilitate construction of the console.</p> | <p>The minimum evidence base for classification of the current situation is:</p> <ul style="list-style-type: none"> - 1 piece of reliable evidence for any of the food security outcomes + - 4 pieces of reliable evidence from different contributing factors or outcome elements <p>The minimum evidence base for classification of the projected situation is:</p> <ul style="list-style-type: none"> - At least 4 pieces of reliable evidence from different contributing factors or outcome elements. |

¹ For more detail on the CARI, refer to the Technical Guidance Paper:

https://resources.vam.wfp.org/sites/default/files/CARI_Final.pdf

² For more detail on the IPC, refer to the Technical Manual Version 2.0:

http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC-Manual-2-Interactive.pdf

| Analysis | | |
|-------------------------------|---|--|
| Unit of Analysis | The household is the unit of analysis in the CARI; each individual household is categorised into a food security group. | For Acute Food Insecurity, the IPC has two units of classification: (1) Area-based; and (2) Household Group-based, which are relatively homogenous groups of households with regard to food security outcomes. As a minimum standard, an IPC classification must be Area-based. |
| Temporal Analysis | CARI is based on cross-sectional data; it assesses the situation at a fixed point in time with no forecasting. | The IPC has two different time periods for situation analysis: (1) the current snapshot (i.e. at the time the analysis is conducted); and (2) a future projected snapshot. The future projection is based on the most likely scenario for any time period in the future (as short as a week or as long as a year). |
| Analytical Method | The outcomes of each indicator included in the CARI analysis are converted into a standard 4-point classification scale. An algorithm (provided in the CARI Technical Guidance) is used to assign each surveyed household into one of the four food security groups. | Rather than mathematical modelling, the IPC uses a "convergence-of-evidence" approach. This requires the analysts to critically evaluate the body of evidence, and, all things considered, make their best estimation of the severity of the situation based on the IPC Reference Table. |
| Analysts | A food security analyst(s), skilled in data analysis, can produce the CARI results. | The IPC enables technical consensus by forming a multi-stakeholder Technical Working Group (TWG) to conduct the analysis. The consensus-based process involves bringing together experts from different disciplines and perspectives to evaluate and debate the evidence, leading to the big-picture conclusions for the IPC. |
| Results | | |
| Classification: Groups/Phases | The CARI uses four food security groups: 1) Food secure 2) Marginally food secure 3) Moderately food insecure 4) Severely food insecure | IPC is based on five food insecurity phases: 1) Minimal/None 2) Stressed 3) Crisis 4) Emergency 5) Famine/Catastrophe |
| Classification: Area | The CARI classification provides a representative estimate of food insecurity within the target population. The food security console can be prepared for all geographic levels (i.e. national; urban/rural; district; livelihoods; etc) and other strata (e.g. livelihood activities, sex of household head). | A key criterion for the Area classification is that 20% of the population must be in that Phase or worse based on the Household Group classification. It is up to the IPC analysts to determine the spatial extent of the Analysis Area. The IPC is adaptable and applicable to any spatial size. |

| | | |
|-----------------------------|---|--|
| Classification: Population | The CARI analyses statistically representative survey data, thus can reliably estimate the actual number of food insecure households in a target population. | The IPC estimates the number of people in need of assistance based on secondary data and consensus. |
| Response Analysis | <p>The current version of the CARI Technical Guidance does not attempt to instruct analysts on how to recommend specific program responses based on a particular set of console results.</p> <p>In collaboration with WFP Programme colleagues, VAM plans to eventually prepare guidance on how to use CARI results to develop meaningful and actionable programme recommendations.</p> | <p>The IPC focuses on answering questions related to the situation analysis, and stops short of determining recommendations for specific action. This intentional limitation aims to ensure that the IPC analysis is neutral and minimally influenced by a wide range of potential biases associated with preferred types of food security response by any institution or agency.</p> <p>The Situation Analysis of the IPC provides a solid foundation for subsequent Response Analysis.</p> |
| Reporting and Communication | <p>The CARI reporting console will form one component of a broader food security analysis report.</p> <p>Food security assessments present additional sources of data which develop a richer context-based narrative, underpinning the CARI key findings.</p> | <p>The IPC enables Communicating for Action by using maps, charts, tables and text in a standardized Communication Template to present and describe core aspects of situation analysis</p> <p>The IPC Communication Template includes four parts: (1) the first page of graphics (including a map); (2) a second page of summary text; (3) population tables; and (4) Sections A,B, and C from the Analysis Worksheets for all areas included in the analysis</p> |

CARI & IPC: Indicators and Classification

As explained in the CARI-IPC Fact Sheet, all component indicators of the CARI can be used within IPC analysis. Table 2, which can also be found in the Fact Sheet, and shows where each CARI component indicator fits into the IPC Analysis framework.

Table 2: CARI Component Indicators within the IPC Analytical Framework

| CARI Component Indicator | IPC Analytical Framework | |
|--------------------------------|--------------------------|---|
| 1. Food Consumption Score | Household Outcomes | Food Consumption Score |
| 2. Food Energy Shortfall | | Food Quantity |
| 3. Poverty Status | Indirect Evidence | Hazards and Vulnerability: Percentage of population under the national poverty line |
| 4. Food Expenditure Share | | Access: Percentage of income spent on food |
| 5. Livelihood Coping Indicator | | Livelihood Change: Ownership of productive assets and recent changes in ownership |

The manner in which CARI is utilized during IPC analyses may vary, depending on the wider body of evidence available. If the CARI Food Security Index, i.e. the aggregated results, is included within the IPC analysis, WFP VAM recommends that the food security groups translate to the IPC phases as illustrated in Table 3 below.³

Table 3: CARI Classifications and IPC Phases

| CARI Classifications | | IPC Area Phases | IPC Household Group Phases |
|---|-----|-----------------|----------------------------|
| 1 = Food secure | →→→ | 1 = Minimal | 1 = None |
| 2 = Marginally food secure | →→→ | 2 = Stressed | 2 = Stressed |
| 3 = Moderately food insecure | →→→ | 3 = Crisis | 3 = Crisis |
| 4 = Severely food insecure | →→→ | 4 = Emergency | 4 = Emergency |
| No CARI Classification below severely food insecure | | 5 = Famine | 5 = Catastrophe |

If the IPC analysts choose to separately consider each of the CARI component indicators, Tables 4-8 below provide the comparison of how each indicator is classified within the CARI food security groups and the IPC phases.

Table 4 demonstrates that the results of the Food Consumption Score are treated the same way within the CARI and the IPC. Note that the CARI only classifies the three standard food consumption groups (Acceptable, Borderline and Poor), which means that Marginally Food Secure is not associated with any food consumption group. However, the IPC uses an “acceptable but deteriorating” consumption for Phase 2 classification.

³ Refer to the CARI Technical Guidance for the IPC-CARI Cross walk, which provides a detailed description of the CARI food security groups alongside the IPC Phases

Table 4: Food Consumption Score

| Food Consumption Score | | | |
|---|------------|------------------------------------|--|
| CARI Household Classification | | IPC Household Group Classification | |
| Food Secure | Acceptable | Phase I: None | "Acceptable" consumption ; stable |
| Marginally Food Secure | | Phase 2: Stressed | "Acceptable" consumption (but deteriorating) |
| Moderately Food Insecure | Borderline | Phase 3: Crisis | "Borderline" consumption |
| Severely Food Insecure | Poor | Phase 4: Emergency | "Poor" consumption |
| No CARI Classification below severely food insecure | | Phase 5: Catastrophe | [Below] "poor" consumption |

Table 5 explains how the Food Energy Shortfall indicator is used within both the CARI and the IPC. The IPC focuses on kilocalorie consumption in relation to a 2,100 kcal per person per day threshold. The CARI, however, uses both 2,100 kilocalories and the Minimum Daily Energy Requirement (MDER) for the country, which is calculated by the Statistics Division of the Food and Agriculture Organisation.

The CARI thresholds align closely with the IPC thresholds, but the methodology differs. Refer to the CARI Technical Guidance for more detail on how to use the MDER to calculate Food Energy Shortfall.

Table 5: Food Energy Shortfall

| Food Energy Shortfall | | | |
|---|---|------------------------------------|--|
| CARI Household Classification | | IPC Household Group Classification | |
| Food Secure | Kcal p/d \geq 2100 | Phase I: None | Adequate (2,100 kcal pp/day); stable |
| Marginally Food Secure | Below 2,100 kcal, but above midpoint of country-specific minimum daily energy requirement (MDER) and 2,100 kcal | Phase 2: Stressed | Minimally adequate (2,100 kcal pp/day) |
| Moderately Food Insecure | Above MDER, but below midpoint of MDER and 2,100 kcal | Phase 3: Crisis | Food gap; below 2,100 kcal pp/day OR 2,100 kcal pp/day via asset stripping |
| Severely Food Insecure | Below MDER | Phase 4: Emergency | Large food gap; much below 2,100 kcal pp/day |
| No CARI Classification below severely food insecure | | Phase 5: Catastrophe | Extreme food gap |

The IPC does not provide universal thresholds for evidence considered "contributing factors." The remaining three CARI component indicators are considered by the IPC to be contributing factors, thus no comparison is possible.

Table 6: Poverty Status

| Poverty Status | | | |
|---|---|------------------------------------|---|
| CARI Household Classification | | IPC Household Group Classification | |
| Food Secure | Total expenditure > poverty line | Phase I: None | No universal thresholds specified; each contributing factor must be analysed within its livelihood, social and historical contexts. |
| Marginally Food Secure | | Phase 2: Stressed | |
| Moderately Food Insecure | 100% food poverty line \geq Total Exp \leq 100% of poverty line | Phase 3: Crisis | |
| Severely Food Insecure | Total Exp \leq 100% of food poverty line | Phase 4: Emergency | |
| No CARI Classification below severely food insecure | | Phase 5: Catastrophe | |

Table 7: Food Expenditure Share

| Food Expenditure Share | | | |
|---|------------|------------------------------------|---|
| CARI Household Classification | | IPC Household Group Classification | |
| Food Secure | <50% | Phase I: None | No universal thresholds specified; each contributing factor must be analysed within its livelihood, social and historical contexts. |
| Marginally Food Secure | 50 - <65% | Phase 2: Stressed | |
| Moderately Food Insecure | 65 - <75% | Phase 3: Crisis | |
| Severely Food Insecure | \geq 75% | Phase 4: Emergency | |
| No CARI Classification below severely food insecure | | Phase 5: Catastrophe | |

Table 8: Livelihood Coping Indicator

| Livelihood Coping Indicator | | | |
|---|-------------------------------|------------------------------------|---|
| CARI Household Classification | | IPC Household Group Classification | |
| Food Secure | None | Phase I: None | No universal thresholds specified; each contributing factor must be analysed within its livelihood, social and historical contexts. |
| Marginally Food Secure | Employed stress strategies | Phase 2: Stressed | |
| Moderately Food Insecure | Employed crisis strategies | Phase 3: Crisis | |
| Severely Food Insecure | Employed emergency strategies | Phase 4: Emergency | |
| No CARI Classification below severely food insecure | | Phase 5: Catastrophe | |

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