TECHNICAL GUIDANCE FOR WFP

Consolidated Approach for Reporting Indicators of Food Security (CARI)

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What is new in the updated CARI guidance?

- Removal of the energy shortfall indicator from CARI console, as this indicator is not being used in the field and is not practical to be collected in WFP contexts.
- Removal of the less frequently used CARI terminologies, such as the food security index.
- Allowance for only two options to combine food security indicators in the CARI console, while the previous CARI version included six combinations.
- Addition of reduced Coping Strategies Index (rCSI) to the Food Consumption Score in the Current Status domain in the CARI console.
- Inclusion of Economic Capacity to Meet Essential Needs (ECMEN) indicator, to replace the poverty indicator in the CARI console.
- Updated standard household expenditure module, to measure Food Expenditure Share (FES) and ECMEN.
- Inclusion of updated livelihood coping strategies in the LCS-FS module and aligning the LCS-EN module accordingly.
- Updated list of coping strategies to include strategies commonly used in urban areas, and increased emphasis on the contextualization of the coping strategies.
- Inclusion of an updated guidance related to the uses of CARI versus Integrated Food Security Phase Classification (IPC) and Cadre Harmonisé (CH) food security figures.

- Elaborate on the concept of food security and what CARI measures versus what is not measured by CARI.
- Introduction of a standardized way for mapping CARI results on geographical administrative levels, that are lower than national level.
- Inclusion of the standard data collection modules, XLS forms, syntaxes of the food security indicators in the CARI console on the VAM resource center, as well as their technical guidance notes and training materials.

Possible implications of the updated methodology

The number of marginally food secure households could increase compared to the old CARI methodology. This is due to the re-classification of households with acceptable food consumption and high level of reduced Coping Strategies into the marginally food secure category, instead of the food secure category.

The number of food insecure households could increase due to the use of ECMEN which removes the assistance value from the economic capacity of households to meet essential needs.

When trend analysis is involved, a clear reference to methodologies used in each round of data collection must be made. In addition to potential influences from the change in the methodology used, and change in the percentage of food insecure households.
Purpose of technical guidance

The purpose of this guidance is to help analysts in carrying out food security needs assessments using an appropriate and fit methods to estimate the food security situation in a given population. The guidance explains WFP’s approach to conduct household-level food security classification, Consolidated Approach for Reporting Indicators of Food Security (CARI).

Specifically, the guide instructs users how to:

- **Collect data for CARI reporting console** by presenting standard questionnaire modules and instructions on how they can be adapted.
- **Construct the reporting console** by transforming standard WFP indicators to generate the overall food security classification.
- **Present and interpret console results.**

Section 2, 3 and 4 explain how the CARI reporting console is constructed. It describes which types of data are needed to produce the console's two food security domains: Current Status and Coping Capacity.

Sections 5 presents how to combine the two domains of the CARI (Current Status and Coping Capacity) using mock examples. The two different combinations scenarios are presented in this section.

Section 6 provides guidance on how to present and interpret CARI results. It explains how to report on the overall prevalence of food insecurity, and how to use the console to describe the experiences of households belonging to each food security classification. It also introduces a new standard mapping approach that integrates area classifications of food security and the prevalence of food security of CARI per area.

Section 7 provides links to the standard questionnaire guidance and modules required to generate the data for the CARI food security indicators. Analysts have to follow these documents when designing questionnaires and training enumerators.
1. Introduction to CARI

1.1 BACKGROUND AND DESCRIPTION

CARI analyzes primary data from a single Household survey and classifies individual households according to their level of food security. The approach culminates in a food security console which supports the reporting and combining of food security indicators in a systematic and transparent way, using information collected in a typical food security assessment. Central to the approach is an explicit classification of households into four descriptive groups: Food Secure, Marginally Food Secure, Moderately Food Insecure, and Severely Food Insecure. The classification provides a representative estimate of food security within the target population whether it is calculated at the national, district, region or livelihood zone level. In addition, the CARI is used to carry out vulnerability profiling of households and to identify targeting criteria for WFP programming.

Following the review of the old CARI guidance, published reports, literature, consultations with WFP Regional Bureaus and several Country Offices, the updated CARI methodology was developed in 2021 to overcome some of the technical and operational challenges of the older version.

1.2 WHAT IS FOOD SECURITY?

Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food, that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996).

The Food and Nutrition Security Conceptual Framework (Figure 1) adopted by the Comprehensive Food Security and Vulnerability Analysis (CFSVA) considers food availability, household food access, and individual food utilization as core elements of food security, and links them to households’ asset endowments, livelihood strategies, and political, social, institutional, and economic environment.

The strength of the household livelihoods approach lies in its ability to obtain a holistic and multidimensional profile of a micro-level context Food and Nutrition Security framework - food, nutrition, livelihood, and rights-realization - with strong regional and national contextualization, allowing for the scaling-up of interventions (Frankenberger et al., 2002). The food security status of any household or individual is typically determined by the interaction among a broad range of agro-environmental, socio-economic, and biological factors. The complexity of the food security problem can be simplified by focusing on three distinct, but interrelated, dimensions: aggregate food availability, household food access, and individual food utilization.

- **Food availability**: Food availability addresses the supply side of food security and is determined by the level of food production, stock levels and net trade. This includes also food aid.
• **Food access**: An adequate supply of food at the national or international level does not in itself guarantee household level food security. Individuals should have adequate resources for acquiring appropriate foods for a nutritious diet. This includes concerns about insufficient food access with a greater focus on incomes, expenditure, markets and prices.

• **Utilization**: Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals are the results of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food. All this combined with utilization of food through an adequate diet, clean water, sanitation and health care determines the nutritional status of individuals. This brings out the importance of non-food inputs in food security.

• **Stability**: Even if a household’s food intake is adequate at this moment, they could still be considered food insecure due to lack or hindered access to food on a periodic basis, risking their nutritional status. Adverse weather conditions, political instability, or economic factors (unemployment, rising food prices) may have an impact on the food security status. To be food secure, a household must have access to adequate food at all times.

### 1.3 WHAT IS THE CARI CONSOLE?

CARI is an approach used to aggregate different food security indicators into one index to report on population overall food security status. The **Food Security Console (or CARI console)** is the final output of the CARI, it presents the food security indicators into a summary table and distributes the percentage of population for each indicator based on a specific cut-off point. The console itself provides a clear snapshot of the rates of different types of a population's food security levels at quick glance.

The CARI assesses availability and access to food through measuring the **Current Status** of household consumption. The CARI measures the ability of a household to stabilize consumption over time by measuring the **Coping Capacity** through economic vulnerability and livelihood coping strategies.

As previously mentioned, the two dimensions are assessed using a selection from four indicators (see Table 1), the combination of which produces CARI. Depending on which indicators are selected, a specific formula is used to determine the final food security outcome for each household.

### Table 1: Example of completed CARI reporting console

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally Food Secure (2)</th>
<th>Moderately Food Insecure (3)</th>
<th>Severely Food Insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Status</td>
<td>Food Consumption</td>
<td>Food consumption groups FCG and reduced Coping Strategies Index</td>
<td>21.1%</td>
<td>30.3%</td>
<td>36.2%</td>
</tr>
<tr>
<td>Economic Capacity</td>
<td>ECMEN (or Food expenditure share when ECMEN is not available)</td>
<td>10.1%</td>
<td></td>
<td>18.4%</td>
<td>71.5%</td>
</tr>
<tr>
<td>Coping Strategies</td>
<td>Livelihood Coping Strategies - Food Security</td>
<td>66.0%</td>
<td>19.0%</td>
<td>3.6%</td>
<td>11.4%</td>
</tr>
<tr>
<td><strong>CARI</strong></td>
<td></td>
<td>30.1%</td>
<td>27.0%</td>
<td>25.3%</td>
<td>17.6%</td>
</tr>
</tbody>
</table>
A useful way to think about the console is to consider each reported food security indicator as a building block, required to form the population's overall classification. The console (see Table 1) stacks these blocks together: each row represents an indicator and shows how the target population is distributed, for that indicator, across the console’s four standard categories: 1) Food secure, 2) Marginally Food Secure, 3) Moderately Food Insecure, and 4) Severely Food Insecure.

The final row of the console presents the population's overall food security outcome; this is described as the CARI. It is based on an algorithm which combines, at the household level, the results for each of the reported food security indicators.

The convergence of each food security indicator's category with the overall food security category will be explained in detail in Section 2.

1.3 CONSOLE DOMAINS AND FOOD SECURITY INDICATORS

The console’s domains represent several dimensions of food security. The Current Status domain (Table 1, top rows) employs food security indicators which measure the adequacy of households’ current food consumption. This domain reflects the access and availability of food for consumption at household level. This domain is based on the Food Consumption Score (FCS) and reduced Coping Strategies Index (rCSI). Section 3 of this guidance explains how these indicators are incorporated in the console.

The Coping Capacity domain (Table 1, middle rows) employs indicators which measure households’ economic capacity and livelihood coping strategies and reflects on how households can sustain their food security situation over time. This domain is based on a combination of the Livelihood Coping Strategies for Food Security (LCS-FS) and Economic Capacity to Meet Essential Needs (ECMEN) indicators. If ECMEN is not available then the Food Expenditure Share (FES) would suffice. Section 4 of this guidance explains how these indicators are incorporated to the console.

1.4 CARI AND THE INTEGRATED FOOD SECURITY PHASE CLASSIFICATION (IPC) AND CADRE HARMONISÉ (CH)

The Integrated Food Security Phase Classification (IPC) is a set of standardized tools that aims at providing a “common currency” for classifying the severity and magnitude of food insecurity. Essentially, each IPC takes the form of a national forum – comprised of Government, UN, NGOs, and civil society that conducts a joint food security analysis using secondary data to reach technical consensus on the nature and severity of that country’s food insecurity. Following the forum, the IPC results are consolidated into a report containing the key findings of the analysis and the ‘IPC severity phases’ map.

The IPC is endorsed by a number of international organizations, including WFP, which participates as a member of the IPC Global Steering Committee. The IPC approach combines conceptual frameworks on risk and vulnerability, sustainable livelihoods, and the UNICEF causal framework on nutrition with the four basic dimensions (availability, accessibility, utilization, and stability) of food security analysis.

Similar to the IPC, the Cadre Harmonisé (CH) relies on the existing food security and nutrition information systems already in place in most Sahel countries since 1985, and in other coastal countries of West Africa. Over the years, CH and IPC partners have been working closely to harmonise their tools and processes and promote cross-learning and mutual support in various areas of work, including technical development, analysis, quality assurance, communication, etc.

There are four fundamental differences between the CARI and the IPC/CH which are outlined below:

Unit of analysis: IPC/CH involve area level analyses (geographical classification of areas or groups of households) using a wide range of food security indicators, contributing factors and nutrition indicators. It estimates the food insecure population per area, while the unit of analysis in CARI is the household, and it includes household level indicators related to food security.
**Classification:** IPC/CH are based on five food insecurity phases (Minimal, Stressed, Crisis, Emergency, and catastrophe/Famine); the CARI uses four food security groups (Food Secure, Marginally Food Secure, Moderately Food Insecure, and Severely Food Insecure).

**Algorithm:** IPC/CH are a consensus-based process involving relevant stakeholders who together consider a number of information sources before determining a country’s food insecurity phases. The CARI must be based on a single survey dataset. Thus, the CARI applies a specific algorithm (detailed in this guidance) to assign each surveyed household into one of the four food security groups.

**Use:** IPC and CH are used to classify the geographical areas according to their food security status (phases 1 to 5) and estimate the number of people who are at different stages of food security (phases 1 to 5) in each area. CARI classifies the population into four groups (1 to 4) and estimates the number of people at different stages of food security (1 to 4) in each area. In addition, to identify the factors associated with food insecurity in a given population and could be used to identify targeting criteria (household criteria for targeting).

IPC/CH analyses are conducted by multiple food security partners (including WFP) and is endorsed by the government. Therefore, if IPC/CH is functional in a given country, WFP recommends the use of IPC or CH to report on the number of food insecure population in a given country and geographical distribution of food insecurity. CARI would be used for this purpose if IPC/CH are not present in the country or was not conducted on time and there is a need for urgent reporting on food security numbers. The Global Report on Food Crises also uses IPC/CH as a primary source for reporting on numbers, and CARI when IPC is not available.

IPC/CH analyses are done at area level and cannot be used for household profiling, therefore in all cases whether IPC/CH are used or not, CARI is the recommended method that identifies the profile of food insecure households. This is a very important step for WFP targeting and prioritization that cannot be achieved through IPC/CH analysis only.

Theoretically, **Figure 2** shows how the Research, Assessment and Monitoring (RAM) division in WFP headquarters considers the final CARI categories to link up with the IPC phases. However, the numbers of food insecure people and area classification could be different if both IPC and CARI are conducted in the same country as each method follows a different approach. For more details on the differences between CARI and IPC please check this document.

### 1.6 LIMITATIONS OF THE CARI APPROACH

While standardized indicators are helpful for agencies or donors that work globally across
several countries or regions, taking action on the ground often requires more specialised information, developed to capture local nuances.

The intention of this approach, however, is to provide a set of standard indicators, to make information on a number of dimensions available in an aggregated way. However, VAM surveys collect additional data (i.e., perception-based questions, other sectoral-related data), beyond what is suggested here for the food security console. Analysts must continue to present these additional sources of data as they can be useful for informing programmatic decisions. The contextual information is also crucial for developing the analytical narrative which underpins the key findings.

As any composite indicator, summarizing multiple data from different dimensions into one summary indicator could result in loss of information. Looking at the final CARI aggregation only would not allow for distinction between a household with poor consumption, but adequate Coping Capacity, and a household in the opposite situation. It is difficult to explain the vulnerability dimension by looking only at aggregate CARI results.

A third concern has to do with assessing the food security of households who are receiving in-kind food assistance. In such operations, the reported food expenditures data will be influenced by households' spending on food compared to non-food items. The FES will be underestimated if the inputted value of food assistance is not included in the calculation, meaning spending less on food and more on non-food items. The CARI will classify households receiving assistance as food secure while they are not. Therefore, assistance should be included in the calculation of FES with a caveat that analysts cannot evaluate the vulnerability status of the household in absence of assistance. Similarly, we cannot remove the impact of food assistance from the food consumption score indicator to know the food consumption status of the households in absence of assistance. ECMEN indicator overcomes this challenge by looking at the household capacity excluding assistance in reference to a recognized threshold (Minimum Expenditure Basket (MEB) and Survival Minimum Expenditure Basket (SMEB)).
2. Constructing the CARI Console

2.1 WHEN TO USE THE CARI CONSOLE?
The CARI methodology is designed to be used for WFP food security assessments which aims to estimate the number of food insecure households in a target population and identify the profile of food insecure population. The method is suitable for national and regional assessments, as well as more specific locations, such as refugee settlements.

The CARI console requires data sourced entirely from a single household-level survey. Suitable survey tools include standard WFP assessments (including Comprehensive Food Security and Vulnerability Analyses, Emergency Food Security Assessments, Essential Needs Analysis and comprehensive Food Security Monitoring Systems) and some non-WFP surveys (for example, Multi Sectoral Needs Assessment and Living Standards Measurement Study). The inclusion of CARI questionnaire modules in light food security monitoring systems is encouraged.

2.2 WHICH FOOD SECURITY INDICATORS DOES CARI REQUIRE?
To construct the CARI console, the survey tool must generate an acceptable minimum combination of food security indicators. Table 2 shows the two possible combinations of food security indicators which will facilitate construction of the console. These CARI combinations have been determined to be adequate for measuring food security. Each grouping should contain two indicators to measure the Current Food Consumption (i.e. Food Consumption Score and reduced Coping Strategies Index); at least one indicator measuring economic capacity (either the ECMEN or FES indicators); and, the Livelihood Coping Strategies – Food Security (LCS-FS) indicator. Each combination has been deemed to contain sufficient information for establishing the household's level of food security.

Table 2: Acceptable CARI food security indicator combinations and descriptions

<table>
<thead>
<tr>
<th>Indicator Combo</th>
<th>Food Security Indicators</th>
<th>Coping Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economic capacity to meet essential needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food expenditure share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Livelihood coping strategies – food security</td>
<td></td>
</tr>
<tr>
<td>Combo 1</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Reduced coping strategies index</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Measures current food consumption.</td>
<td>Measures short-term coping measures to meet basic food needs.</td>
</tr>
<tr>
<td>Indicator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combo 2</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Measures economic vulnerability.</td>
<td>Measures economic vulnerability.</td>
</tr>
<tr>
<td></td>
<td>Measures the medium and long-term capacity for future productivity</td>
<td></td>
</tr>
</tbody>
</table>

Households are allocated into groups based on the variety and frequency of foods consumed. Households receive a score based on the frequency of applying reduced coping strategies. Households’ expenditure value compared to minimum expenditure basket. Households categorised based on severity of applied livelihood coping strategies due to lack of food.

(see section 3.1) (see section 3.2) (see section 4.1.1) (see section 4.1.2) (see section 4.2)
best choice to calculate CARI. However, indicator combination 2 (Current Status measured by FCS and rCSI, Coping Capacity measured by FES and LCS-FS) will be the second choice for CARI measurement – in the absence of a Minimum Expenditure Basket or a comparable threshold that are needed for ECMEN calculation (see Table 2).

2.3 CONVERTING FOOD SECURITY INDICATORS INTO A 4-POINT SCALE
A central stage of the console methodology involves converting the outcomes of each console indicator into a 4-point standard classification scale. The 4-point scale assigns a score (1-4) to each category, as shown below:

<table>
<thead>
<tr>
<th>4-point scale category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Secure</td>
<td>1</td>
</tr>
<tr>
<td>Marginally Food Secure</td>
<td>2</td>
</tr>
<tr>
<td>Moderately Food Insecure</td>
<td>3</td>
</tr>
<tr>
<td>Severely Food Insecure</td>
<td>4</td>
</tr>
</tbody>
</table>

Within each of the two domains (Current Status and Coping Capacity), the 4-point scale indicator scores are then averaged to establish the household-level summary indicators. These summary indicators are then averaged to establish household's overall food security classification.

The averaging procedure for adapting the console scores into the overall food security classification is explained below in Section 2.4.

Sections 3 and 4 of this guidance explain in detail the steps involved for converting the stand-alone results of each food security indicator into the 4-point scale.

2.4 CALCULATING THE OVERALL FOOD SECURITY CLASSIFICATION
Once all the available food security indicators in the console have been converted to the 4-point scale, the overall food security classification for a household can be easily calculated.

The steps to calculate the overall food security classification for a household are described here:

1. Calculate the ‘summary indicator of Current Status’ by averaging the household's console score (i.e., 4-point scale) for the indicators in the Current Status domain (CS).

2. Calculate the ‘summary indicator of Coping Capacity’ by averaging the household's console scores (i.e., 4-point scale) for available indicators in the Coping Capacity domain (CC).

3. Average these results together: (CS+CC)/2

4. Round to the nearest integer number, which will always fall between 1 and 4. This number represents the household's overall food security outcome.
Table 3: Description of the overall WFP food security classifications

<table>
<thead>
<tr>
<th>Food Secure</th>
<th>Marginally Food Secure</th>
<th>Moderately Food Insecure</th>
<th>Severely Food Insecure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to meet food needs without engaging in reduced and livelihood coping strategies for food security</td>
<td>Has minimally inadequate food consumption, relies on reduced coping and applies stress coping strategies to secure food needs</td>
<td>Has food consumption gaps and unable to meet required food needs without applying crisis coping strategies</td>
<td>Has extreme food consumption gaps, OR has extreme loss of livelihood assets will lead to food consumption gaps, or worse</td>
</tr>
</tbody>
</table>

The final row of the reporting console is used to present the overall results for the population in a summary indicator: Table 3 provides a description of the four categories belonging to CARI.

The precise formula used to calculate the food security status of a household will vary depending on which indicators have been employed in the console. This link includes the formulas for calculating the overall food security classification for each of the two acceptable console indicator combinations.

The flow chart scenarios (A and B) depict graphically how the different indicator inputs of the CARI console are combined to provide the domain summary. The summary of ‘Current Status’ and ‘Coping Capacity’ are then averaged to provide the overall food security classification.

Figure 3a and 3b: the CARI console components
3. Current Status domain

The CARI console’s Current Status domain (i.e., the top section of Table 1) reports on the adequacy of households’ food consumption at the time of survey. The console measures food consumption by using two indicators:

- **Food Consumption Score (FCS)**
- **reduced Coping Strategies Index (rCSI)**

*Table 4* provides a quick indication of how the Current Status standard indicator is converted to the 4-point scale. The remainder of this section elaborates on this table, explaining in detail how to collect the data for the indicator, and how to transform the indicator results into the console.

### 3.1 FOOD CONSUMPTION SCORE (FCS)

The CARI console uses WFP Food Consumption Groups (based on the FCS) as a descriptor of a household’s Current Status of food consumption. The FCS is a proxy of households’ food access and a core WFP indicator used to classify households into different groups based on the adequacy of the foods consumed in the week prior to being surveyed.

*This link* includes the food consumption questionnaire modules and contains instructions on how it should be administered to obtain an accurate FCS.

### 3.2 REDUCED COPING STRATEGIES INDEX (RCSI)

In the current version of CARI, the reduced Coping Strategies Index is considered in the calculation, to assess and compare the level of stress faced by households due to shortages of food. It also allows us to distinguish between households with acceptable food consumption ‘classified under food secure’ and those who are ‘marginally food secure’. The previous version of
CARI methodology did not include this index as there were no agreeable thresholds. By now, several studies have been conducted to identify the rCSI thresholds and have already been adopted by IPC outcome indicators reference table.

This link presents the reduced Coping Strategies questionnaire module and contains instructions on how it should be administered to obtain an accurate reduced Coping Strategies Index (rCSI).

### 3.3 CONVERTING FCS AND RCSI TO CARI SCALE

The steps to convert FCS results to the CARI console’s 4-point scale are described below. A relevant SPSS syntax example can be found here. To convert the FCS to the CARI, the analyst must:

1. Calculate the Food Consumption Score and categorise each household into one of the three Food Consumption Groups: Poor, Borderline, or Acceptable. This should be done using the country’s standard Food Consumption Group thresholds. For more information on constructing the Food Consumption Groups, go here.

2. Use Food Consumption Groups to create a new variable in your dataset converting each household’s food consumption into the corresponding 4-point scale as shown in table 4. To do this:
   - Convert ‘Acceptable’ households to ‘Food Secure’ and assign these households a score of 1 (Food Secure).
   - Convert ‘Borderline’ households to ‘Moderately Food Insecure’ and assign these households a score of 3 (Moderately Food Insecure).
   - Convert ‘Poor’ households to ‘Severely Food Insecure’ and assign these households a score of 4 (Severely Food Insecure).

3. Using rCSI score convert ‘Food Secure’ households to ‘Marginally Food Secure’ household if they have reduced Coping Strategies Index of 4 or more and assign them a score of 2.

4. Run a basic frequency for the new converted variable, to determine the population’s distribution across the categories.

5. Add frequency results to the ‘Food Consumption Score’ row of the console (as illustrated in Table 4).
4. Coping Capacity domain

The console’s Coping Capacity domain aims to measure households’ resilience to shocks. The CARI console considers two dimensions of household Coping Capacity:

1. **Economic vulnerability and**;
2. **Livelihood Coping Strategies**

Table 5 provides a quick indication of how the Coping Capacity standard indicators are converted to the 4-point scale. The remainder of this section explains in more detail how to convert the presented indicators into the CARI console.

### 4.1 ECONOMIC VULNERABILITY

In the CARI console, a household’s economic vulnerability is determined using either the ECMEN or, in case not available – the share of household expenditures spent on food. While ECMEN provides a stronger estimate of household vulnerability, it is unlikely to be available for all WFP assessments, especially in the absence of a Minimum Expenditure Basket (MEB) and Survival Minimum Expenditure Basket (SMEB) to be used as thresholds for expenditure. **It is important to note that only one of the two ‘economic capacity’ indicators should be used** (i.e., either FES or ECMEN, but not both).

#### 4.1.1 Economic Capacity to Meet Essential Needs (ECMEN)

The ECMEN indicator identifies the percentage of households whose expenditures exceed the MEB. The MEB is defined as what a household requires to meet their essential needs, on a regular or seasonal basis, as well as costs. It covers those needs that households meet fully or partially through the market. The MEB serves as a monetary threshold that can be used to assess a household’s economic capacity to meet their needs. To compute the ECMEN, household expenditures are used as a proxy for household economic capacity against the MEB and SMEB of the same population group. Both, economic capacity and MEB are usually calculated on a per capita basis.

![Image of a woman planting crops](image)

**Table 5: Coping capacity dimension of the CARI Console**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally food secure (2)</th>
<th>Moderately food insecure (3)</th>
<th>Severely food insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Vulnerability</td>
<td>ECMEN</td>
<td>Total expenditure &gt; MEB</td>
<td>SMEB ≥ Total Exp ≤ MEB</td>
<td>Total Exp ≤ SMEB</td>
<td></td>
</tr>
<tr>
<td>Coping Capacity</td>
<td>Food Expenditure Share</td>
<td>&lt;50%</td>
<td>50-65%</td>
<td>65-75%</td>
<td>≥ 75%</td>
</tr>
</tbody>
</table>
To compare economic capacity against the MEB, expenditures of the household are aggregated in a specific way, that reflects the concept of economic capacity: The aggregation includes expenditures on all recurrent and regular food and non-food items made in cash, as well as the estimated value of consumption from own production. Any assistance or gifts (cash or in-kind) are excluded form the expenditure aggregate because these do not represent a household making expenditures from their own capacity. This allows to assess households’ economic vulnerability without biases introduced by households receiving assistance.

In order to convert ECMEN to a 4-point scale of the CARI scale, a second threshold – a Survival Minimum Expenditure Basket (SMEB)\(^1\) - is required. The SMEB is the absolute minimum amount required to maintain existence and cover lifesaving needs. First, together with the MEB, the SMEB can be used to classify households into different categories of economic capacity for meeting their needs.

For more information, please refer to the Minimum Expenditure Basket guidance note (WFP, 2020b) and the Chapter on ECMEN in the Essential Needs Assessment guidance note (WFP, 2020a, pp. 15-20).

\(^1\) The food MEB can be used as proxy for the SMEB if not available – however, constructing a SMEB including survival food and non-food needs is preferred (for methodology see WFP Minimum Expenditure guidance note (WFP, 2020b), p. 34.

Table 6: Console–Coping Capacity component, Economic Capacity to Meet Essential Needs (ECMEN)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally Food Secure (2)</th>
<th>Moderate Food Insecure (3)</th>
<th>Severely Food Insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Capacity</td>
<td>Economic vulnerability ECMEN</td>
<td>Economic capacity &gt; MEB</td>
<td>SMEB &gt; Economic capacity ≤ MEB</td>
<td>Economic capacity ≤ SMEB</td>
<td></td>
</tr>
</tbody>
</table>
4.1.3 Food Expenditure Share (FES)

In many WFP contexts, MEB information is not available, and the ECMEN indicator cannot be calculated. In this case economic vulnerability is measured using the ‘Food Expenditure Share’ indicator (FES). This indicator is based on the premise that the greater the importance of food within a household’s overall budget (relative to other consumed items/services) the more economically vulnerable the household.

The FES indicator is essentially constructed by dividing the total food expenditures by the total household expenditures. However, an important note is that both the numerator and denominator should include the value of non-purchased consumed foods (i.e. food consumed through own production or assistance during the recall period). By including both non-purchased foods and purchased foods within the overall FES estimate, the indicator considers households with different food access situations similarly. More information about FES can be found here.

Another caveat of this indicator, it does not work very well when there are other essential needs that are provided to the surveyed community for free, such as shelter in case of refugee context. Therefore, FES should be used carefully in for urban or refugee settings.

4.1.4 Converting Food Expenditure Shares to CARI scale

To convert the ‘Food Expenditure Share’ indicator to the 4-point scale, use the corresponding scores shown in Table 7.

4.2 LIVELIHOOD-BASED COPING STRATEGIES - FOOD SECURITY

The CARI uses the Livelihood-based Coping Strategies food security indicator as a descriptor of a household’s Coping Capacity.

The Livelihood-based Coping Strategies indicator for food security is derived from a series of questions related to households’ experiences with livelihood strategies due to lack of food during the 30 days prior to survey. Responses are used to understand mechanisms used by households to cope with internal and external shocks. The coping strategies describe households’ medium and long-term capacity for future productivity and food security. Households engaging in routine economic activities that do not involve severe coping strategies would be considered equivalent to food secure under this indicator.

In case an Livelihood Coping Strategies - Essential Needs (LCS-EN) module is collected, then the module can be used to calculate LCS-FS at the analysis stage, by considering the coping strategies severity for only the households (cases) that ticked ‘to buy food’ as one of the reasons for adopting these coping strategies. See relevant syntax here. After the calculation of an LCS food security indicator the households/cases that did not include food among the reasons for applying coping strategies will be classified in the CARI with the households that did not apply any of the coping strategies because it was applied for other reasons than food needs.

---

**Table 7: Console– Coping Capacity component, Food Expenditure Share**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally Food Secure (2)</th>
<th>Moderately Food Insecure (3)</th>
<th>Severely Food Insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Capacity</td>
<td>Income Status Food expenditure share</td>
<td>&lt; 50%</td>
<td>50% - &lt;65%</td>
<td>65% - &lt;75%</td>
<td>≥ 75%</td>
</tr>
</tbody>
</table>
4.2.1 Converting livelihood-coping strategies to CARI scale

The livelihood-coping strategies severity groups are used to re-classify households into the CARI’s 4-point scale based on the most severe coping strategies the household reported. The steps to build this indicator are described here.

For this process we are only interested in each household’s most severe (or maximum) strategy employed. For example, if a household applied any emergency coping strategies and at the same time applied any stress coping strategies, the household’s overall classification for the LCS-FS indicator would be emergency (as ‘emergency’ is more severe than ‘stress’ and therefore considered the maximum strategy adopted), and so that households would be assigned LCS-FS score of ‘4’ in the CARI console.

Similarly, if a household has not applied emergency coping and applied at least one of the crisis coping strategies, the household’s overall classification for the indicator would be ‘crisis’ (and it would be assigned a LCS-FS score of ‘3’ in the CARI console). If the household did not apply crisis nor emergency coping and applied at least on stress coping strategies, it will be assigned a LCS-FS score of ‘2’ in the CARI console. If none of the coping strategies are applied then the household will be assigned a score of ‘1’ in the CARI console.

Table 8: Console – Coping Capacity component, Livelihood coping strategies for food security

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally Food secure (2)</th>
<th>Moderately Food Insecure (3)</th>
<th>Severely Food Insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Capacity</td>
<td>Livelihood coping strategies</td>
<td>Categories</td>
<td>Stress Strategies (e.g. sell non-productive assets)</td>
<td>Crisis Strategies (e.g. sell productive assets)</td>
<td>Emergency Strategies (e.g. sell land or last female animal)</td>
</tr>
</tbody>
</table>
Assessment reports should contain clear explanations of the CARI methodology for the reader. This requires analysts to explain in plain language which CARI indicators were used in the console, and how they have been averaged to calculate households’ final classifications. This explanation must accompany each completed version of the CARI console; clearly, these descriptions will vary between assessments depending on which CARI indicators have been used. See example of the description:

“Each household has been assigned to a food security group based on an averaging process using the 4-point scale attained for each indicator. Specifically, each household’s Food Security Classification is based on a simple average of their Current Status score and their Coping Capacity score. The Current Status is formed by the Food Consumption Score and reduced Coping Strategies Index. The Coping Capacity is formed from a simple average of the Economic Capacity to Meet Essential Needs or Food Expenditure Share score and the Livelihood Coping Strategy for Food Security. The Final CARI index rounded to classify each household into 4 categories (food secure, marginally food secure, moderately food insecure, and severely food insecure).”

These descriptions should also direct readers to a section within the assessment report which provides a more detailed description of the methodology. The section will need to explain the thresholds used for each indicator, and how exactly the indicators were combined to achieve the final result.

Tables 10 and 11 presents the average CARI score for all possible combinations of indicators in which households could be classified. The four colors represent the different food security classifications. The red cells represent the severity of food insecurity after rounding the numbers.

### Table 9 Mock food security outcomes for different indicator combinations

<table>
<thead>
<tr>
<th>Indicator Combo</th>
<th>Current Status (CS)</th>
<th>Coping Capacity (CC)</th>
<th>Formula</th>
<th>Final food security outcome for household Overall WFP Food Security Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>Poor food consumption (CARI scale 4)</td>
<td>SMEB &gt; Economic Share ≤ MEB (CARI scale 3)</td>
<td>Stress coping strategy (CARI scale 2)</td>
<td>CS = 4, CC = (3 + 2) / 2 = 2.5</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>Poor food consumption (CARI scale 4)</td>
<td>65% &lt;75% (CARI scale 3)</td>
<td>Crisis coping strategy (CARI scale 3)</td>
<td>CS = 4, CC = (3 + 3) / 2 = 3</td>
</tr>
</tbody>
</table>

(example indicator results in parentheses)
### Table 10: Weighted average of the CARI scale with the possible combinations of indicators (including ECMEN) used in the classification

**Food Consumption and Livelihood Coping Groups on 4-point scale**

<table>
<thead>
<tr>
<th>Economic Vulnerability Groups (Economic Capacity to Meet Essential Needs)</th>
<th>FCS Acceptable (1)</th>
<th>FCS Acceptable and rCSI &gt;=4 (2)</th>
<th>FCS Borderline (3)</th>
<th>FCS Poor (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(1)</td>
</tr>
<tr>
<td>1</td>
<td>1.00</td>
<td>1.25</td>
<td>1.50</td>
<td>1.75</td>
</tr>
<tr>
<td>3</td>
<td>1.50</td>
<td>1.75</td>
<td>2.00</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>1.75</td>
<td>2.00</td>
<td>2.25</td>
<td>2.50</td>
</tr>
</tbody>
</table>

### Table 11: Weighted average of the CARI scale with the possible combinations of indicators (including FES) used in the classification

**Food Consumption and Livelihood Coping Groups on 4-point scale**

<table>
<thead>
<tr>
<th>Economic Vulnerability Groups (Food Expenditure Share)</th>
<th>FCS Acceptable (1)</th>
<th>FCS Acceptable and rCSI &gt;=4 (2)</th>
<th>FCS Borderline (3)</th>
<th>FCS Poor (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(1)</td>
</tr>
<tr>
<td>1</td>
<td>1.00</td>
<td>1.25</td>
<td>1.50</td>
<td>1.75</td>
</tr>
<tr>
<td>2</td>
<td>1.25</td>
<td>1.50</td>
<td>1.75</td>
<td>2.00</td>
</tr>
<tr>
<td>3</td>
<td>1.50</td>
<td>1.75</td>
<td>2.00</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>1.75</td>
<td>2.00</td>
<td>2.25</td>
<td>2.50</td>
</tr>
</tbody>
</table>
6. Reporting, presentation, and interpretation

This section explains how to present CARI results in different formats and how to visualize CARI results. It also guides the mapping of food security in different regions as well as classifications of severity of food security in different geographical locations. This section also covers programmatic use of CARI and how it is linked to targeting and prioritization of food insecure population.

6.1 CARI CONSOLE

By clearly laying out the results of each food security indicator, the console helps to show how each dimension of food security contributes to the population's overall food security. In addition to presenting the console, analyst is also responsible for:

- describing which factors are influencing the overall food security outcome,
- calculating the final prevalence of food security within a population,
- determining which levels of representation which the console should be reported on (i.e. national, district, livelihoods).

The CARI reporting console should be prepared and presented at the beginning of each food security assessment report, ideally in the executive summary. This table explains the reporting process, using an example completed console (See Table 12).

6.2 FINAL PREVALENCE OF FOOD SECURITY

In addition to providing the population's distribution across the four food security classification groups, the console also generates an answer to the question: what percentage of the population is food insecure? This is based on a simple calculation of an overall reporting aggregate.

To calculate the overall prevalence of ‘food insecurity' in the population, simply sum together the rates of the two most severe categories ('Moderately Food Insecure' and 'Severely Food Insecure'). In the example console above, 47.4% of the population would be considered food insecure.

Table 12: Example of a completed CARI console

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>Food Secure (1)</th>
<th>Marginally Food Secure (2)</th>
<th>Moderately Food Insecure (3)</th>
<th>Severely Food Insecure (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Status</td>
<td>Food Consumption</td>
<td>Acceptable</td>
<td>Acceptable and rCSI&gt;=4</td>
<td>Borderline</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Food consumption groups and rCSI</td>
<td>21.1%</td>
<td>30.3%</td>
<td>36.2%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Coping Capacity</td>
<td>Economic Vulnerability</td>
<td>Economic capacity &gt; MEB</td>
<td>SMEB &gt; Economic capacity ≤ MEB</td>
<td>Economic capacity ≤ SMEB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economic capacity to meet essential needs</td>
<td>10.1%</td>
<td>18.4%</td>
<td>71.5%</td>
<td></td>
</tr>
<tr>
<td>Livelihood coping strategies</td>
<td>Livelihood coping strategies - food security</td>
<td>No coping</td>
<td>Stress</td>
<td>Crisis</td>
<td>Emergency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66.0%</td>
<td>19.0%</td>
<td>3.6%</td>
<td>11.4%</td>
</tr>
<tr>
<td>CARI</td>
<td></td>
<td>30.1%</td>
<td>27.0%</td>
<td>25.3%</td>
<td>17.6%</td>
</tr>
</tbody>
</table>
6.3 REFERENCE POPULATION

The food security console can be prepared for all geographic levels (e.g., national; urban/rural; district; livelihoods; etc) and other strata (e.g., livelihood zones, sex of household head). The executive summary should present, at minimum, the console for the main target population. For instance, in the case of a CFSVA, this would normally be the national population. Results by other strata -along with the consoles- can be presented in later sections of the report, along with the reporting on individual food security indicators.

6.4 FOOD SECURITY DOMAINS

Once the overall food security status is reported, it is important to explain which factors contributed most, to each of the four food security classifications. To do this, analysts can use information generated by the console to help describe the food security issues facing the population.

One useful way to explore how the domains interact within the different food security categories is to create a population distribution table representative of all the possible indicator combinations, syntax can be found here. Tables 13 and 14 provide examples of distribution tables, created using the current status and coping capacity indicators.

Each cell represents the share of households (out of 100%). This analysis step allows the analyst to better understand and explain CARI results through concluded thresholds from a combination of indicators, that form the four CARI classifications.

Creating a population distribution table will not necessarily be useful for inclusion within an assessment report, but can help analysts to form summary statements, to describe the experience of households within each of the different food security categories. It also helps identify unusual situations; for instance, if a high share of the 'Severely Food Insecure' households also had
'Borderline' food consumption (rather than poor food consumption).

Below are some example statements which can be made about the severely food insecure households shown in Table 13:

- Overall, 100% of the severely food insecure households are spending below the MEB.
- Almost 63% out of those severely food insecure households spend below the SMEB.
- 25% of the severely food insecure households have borderline consumption, however, are spending below the SMEB and applying emergency coping strategies.
- Although 16% of the severely food insecure households are relying on stress coping strategies, they were found to have poor food consumption and are spending below the SMEB.

The population distribution table is useful for generating a high-level analytical narrative to accompany the console. However, this is not a substitute for traditional techniques for reporting on the indicators contained in the console. It is important that all indicators used in the console are also separately reported on in later sections of the assessment, using their traditional thresholds and reporting methods.

### Table 13: Console indicators, % population distribution table

<table>
<thead>
<tr>
<th>Economic Vulnerability Groups (ECMEN)</th>
<th>FCS Acceptable (1)</th>
<th>FCS Acceptable and rCSI &gt;=4 (2)</th>
<th>FCS Borderline (3)</th>
<th>FCS Poor (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
</tr>
<tr>
<td>1</td>
<td>6.8%</td>
<td>12.8%</td>
<td>1.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>2</td>
<td>6.8%</td>
<td>12.8%</td>
<td>1.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>3</td>
<td>1.5%</td>
<td>3.1%</td>
<td>2.1%</td>
<td>7.1%</td>
</tr>
<tr>
<td>4</td>
<td>3.7%</td>
<td>2.3%</td>
<td>6.9%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

### Table 14: Console indicators, % population distribution table

<table>
<thead>
<tr>
<th>Economic Vulnerability Groups (FES)</th>
<th>FCS Acceptable (1)</th>
<th>FCS Acceptable and rCSI &gt;=4 (2)</th>
<th>FCS Borderline (3)</th>
<th>FCS Poor (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
<td>Summary of livelihood coping strategies</td>
</tr>
<tr>
<td>1</td>
<td>5.0%</td>
<td>7.8%</td>
<td>1.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>2</td>
<td>6.8%</td>
<td>1.3%</td>
<td>0.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>3</td>
<td>1.5%</td>
<td>1.1%</td>
<td>2.1%</td>
<td>7.1%</td>
</tr>
<tr>
<td>4</td>
<td>3.7%</td>
<td>2.3%</td>
<td>5.3%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
6.5 PRESENTING CARI ON A MAP

In this current version of CARI, a standard mapping approach has been developed. This approach integrates both the area classification at the administrative subdivision level and prevalence of food security of the CARI in each area. The area is classified into four classes of food security based on the CARI prevalence of food security in the area. The food security situation of the most food insecure 25% of the population will be used to classify each area. The color codes in Red, Green, Blue (R,B,G) order of area classification given the respective CARI prevalence are indicated in Table 16. At the end, the area classification of each administrative subdivision is labelled.

Then, a second layer of food security information is generated and imposed on the background map. This prevalence of food security layer is presented as pie charts, to visualise the four population classifications of food security for each administrative subdivision. Pie charts will present the four food security classification levels according to the CARI standard color code as shown in the table below.

Additional pie chart that includes the overall food security classification for the total population in a country can be presented next to the map.

Finally, proportions of the four components of CARI are labelled at their respective proportion and populations are placed in the centre of pie charts. The pie charts are then place on top of their respective administrative divisions after having defined a mask. The masks will take the colors of the backgrounds of the pie chart to create a “doughnut chart” (figure 4).

NB: this new mapping approach of CARI was inspired by IPC mapping (20% rule) and the work of the VAM team in the Regional Bureau for Western Africa (RBD).

---

### Table 16: Color coding for areas based on CARI prevalence of food insecurity

<table>
<thead>
<tr>
<th>Area Classification</th>
<th>Color Code (RGB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 75% of population in the area are food secure</td>
<td>255, 255, 212</td>
</tr>
<tr>
<td>More than 25% of the population in the area marginally food secure, moderately or severely food insecure</td>
<td>255, 255, 82</td>
</tr>
<tr>
<td>More than 25% of the population in the area either moderately or severely food insecure</td>
<td>245, 204, 2</td>
</tr>
<tr>
<td>More than 25% of the population in the area severely food insecure</td>
<td>199, 166, 0</td>
</tr>
</tbody>
</table>

### Table 17: Color coding for prevalence of food security

<table>
<thead>
<tr>
<th>Food Security Classification</th>
<th>Color Code (RGB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Secure</td>
<td>255, 215, 215</td>
</tr>
<tr>
<td>Marginally Food Secure</td>
<td>255, 110, 110</td>
</tr>
<tr>
<td>Moderately Food Insecure</td>
<td>215, 0, 0</td>
</tr>
<tr>
<td>Severely Food Insecure</td>
<td>130, 0, 0</td>
</tr>
</tbody>
</table>
6.6 PRESENTING CARI IN BAR CHART

The prevalence of food security can be presented in bar chart diagram using the standard color codes to display the share of population at different severity levels of food security. Bar chart allows the presentation of CARI results over time, compare geographical regions or population groups.
6.7 PROGRAMMATIC RESPONSE

This guideline presents an approach for reporting on food security using the food security console; it does not attempt to instruct analysts on how to recommend specific program responses based on a particular set of console results. The programmatic response options are highly context-specific and should always be tailored to address issues of access, availability and utilisation. For these reasons, the standard practice for forming useful and practical programming recommendations should be followed (WFP, 2009).

CARI findings are useful to conduct a profiling of food insecure population in a given area, which gives CARI an edge over the IPC area level classification and other food security indicators that classifies population at geographical/stratum level and does not provide in-depth information on the household profile of food insecure population. CARI can be used as the dependent outcome indicator on which eligibility criteria for targeting purposes are developed.

The development of eligibility criteria is the analytical process of identifying the right combination of household characteristics and other criteria. Regardless of the targeting approach, targeting criteria must be:

- Correlated with the main outcome indicator, in this case CARI;
- Be feasible to apply and appropriate for implementation; and
- Have cut-off points for inclusion and exclusion that result in the lowest possible targeting design errors.

To achieve this, the following steps should be implemented:

1. Review the programmatic objectives of the activity to ensure that the targeting approach is based on the intended outcomes of WFP assistance. If the activity aims to improve food security, then the characteristics of households/individuals moderate or severe food insecurity measured by CARI should be used to inform the eligibility criteria;

2. Run cross-tabulations to identify statistically significant relationships between potential eligibility criteria and outcome indicators of interest, in this case CARI;

3. If warranted, further analyse the continuous variables that are correlated with food insecurity in order to identify potential cut-off points. For example, if there is a clear difference in food security among households with fewer than five members compared to those with five or more members, this could be used as an eligibility criterion. The same logic applies to dependency ratios, the number of children, elderly household members, etc.

4. Ensure that the results of consultations with communities and other stakeholders have been taken into consideration; this could mean adding criteria that were not captured through the needs assessment, for example related to specific protection concerns in the community;

5. When a final set of potential criteria have been identified, a binary “eligibility variable” can be generated and applied to the needs assessment dataset to determine which households within that sample that would be included and which excluded, in order to estimate and analyse:

   - The proportion of included vs. excluded households
   - The proportion of food insecure households that would be excluded (design exclusion errors)
   - The proportion of food secure households that would be included (design inclusion errors)

6. potential ways to mitigate these design inclusion and exclusion errors; this is done by analysing the characteristics of wrongfully included/excluded households to understand how they could be captured/excluded.

Step 5 is part of the broader analysis to validate the targeting approach and criteria, which is explained in more detail in the Targeting Guidance (WFP, 2021).
7. Standard modules and Guidance notes

The table below contains the WFP-endorsed standard modules for inclusion in surveys designed to measure food security. Together, these modules can be used to generate the required data for estimating the CARI food security prevalence.

VAM officers should refer to this table and online guidance of each during the design phase of household surveys, as well as in preparation for enumerator training.

<table>
<thead>
<tr>
<th>Module</th>
<th>Guidance notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Consumption Score</td>
<td>Food Consumption and sources guidance</td>
</tr>
<tr>
<td>reduced Coping Strategies</td>
<td>reduced Coping Strategies Index guidance</td>
</tr>
<tr>
<td>Food Expenditure Share</td>
<td>Food Expenditure Share guidance</td>
</tr>
<tr>
<td>Economic Capacity to Meet Essential Needs</td>
<td>Essential needs guidance</td>
</tr>
<tr>
<td>Livelihood Coping Strategies for Food Security</td>
<td>Livelihood coping strategies - food security indicator guidance</td>
</tr>
<tr>
<td>Livelihood Coping Strategies for Essential Needs</td>
<td>Livelihood coping strategies - essential needs indicator guidance</td>
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References


Acronyms

CARI - Consolidated Approach for Reporting Indicators of Food Security
CC – Coping Capacity
CH – Cadre Harmonisé
CS – Current Status
CSFVA - Comprehensive Food Security and Vulnerability Analysis
ECMEN - Economic Capacity to Meet Essential Needs
EFSA – Emergency Food Security Assessment
ENA – Essential Needs Analysis
FAO – Food and Agriculture Organization of the United Nations
FCG – Food Consumption Group
FES – Food Expenditure Share
FS – Food Security
FSMS – Food Security Monitoring Systems
IPC – Integrated Food Security Phase Classification
LCS – Livelihood Coping Strategies
LCS-EN – Livelihood Coping Strategies for Essential Needs
LCS-FS – Livelihood Coping Strategies for Food Security
MEB – Minimum Expenditure Basket
NGO – Non-governmental Organization
RAM – WFP Research, Assessment and Monitoring division
rCSI – reduced Coping Strategies Index
SMEB – Survival Expenditure Basket
UN – United Nations
UNICEF - United Nations Children’s Fund
VAM – Vulnerability Assessment and Mapping
WFP – World Food Programme

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