



World Food Programme

SAVING LIVES
CHANGING LIVES

Food Security Monitoring System Report

WFP Sierra Leone Country Office

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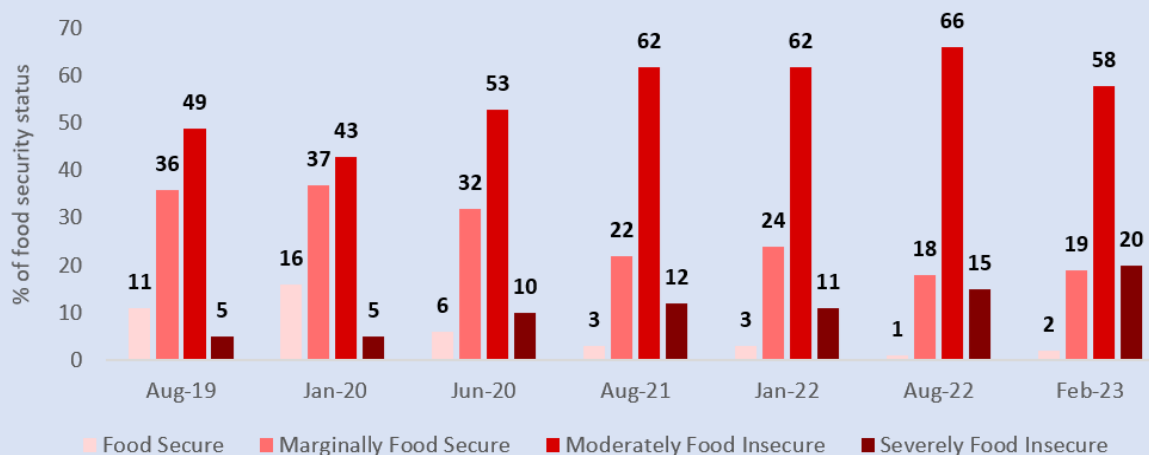
List of Acronyms

CARI	Consolidated Approach for Reporting Indicators of Food Security
CFSVA	Comprehensive Food Security and Vulnerability Analysis
CSI	Coping Strategy Index
ECMEN	Economic Capacity to Meet Essential Needs
FCS	Food Consumption Score
FSMS	Food Security Monitoring System
GAM	Global Acute Malnutrition
HDDS	Household Dietary Diversity Score
LCSI	Livelihood Coping Strategy Index
MAFS	Ministry of Agriculture and Forestry
MEB	Minimum Expenditure Basket
MoHS	Ministry of Health and Sanitation
MUAC	Mid Upper Arm Circumference
ODK	Open Data Kit
PEMSD	Planning Evaluation Monitoring and Statistics Division
rCSI	Reduced Coping Strategy Index
SMART	Standardized Monitoring and Assessment of Relief and Transitions
StatsSL	Statistics Sierra Leone
VAM	Vulnerability Analysis and Mapping

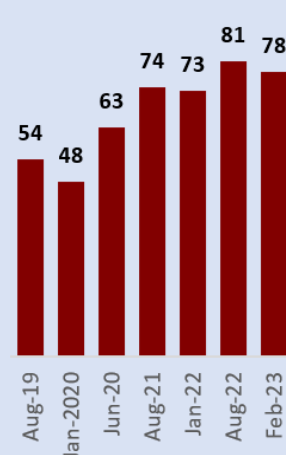
Key Findings

- A large majority (**78 percent**) of Sierra Leone’s population is food insecure. One in five households (**20 percent**) are severely food insecure.
- Despite this, the Global Acute Malnutrition rate in children under 5 (by MUAC) remains low and improved from 5 percent in August to 3 percent in February. There are district variations with Karene, Falaba and Western Area urban at 5-6 percent.
- **66 percent** of households reported spending more than **75 percent** of their total expenditure on food and when the shares of household that spend over half of their expenditure on food summed up the results add up to **95 percent** of Sierra Leonean households.
- The proportion of households that adopted emergency coping strategies was **23 percent** in the latest round of FSMS which is a **14 percentage points** increase from **9 percent** in January 2022.
- According to February 2023 survey results **21 percent** of the Sierra Leonean households have a poor food consumption score, which is a **6 percentage points** deterioration from the **15 percent** reported during the last post-harvest period in January 2022.
- Most households cannot afford a healthy diet which has implications on their health and nutritional status in the long run.
- **Larger household size and agriculture as a source of income** were often the common characteristic of households with high levels of food insecurity.
- The Districts of **Falaba, Koinadugu, Moyamba and Pujehun** have highest levels of vulnerability across the majority of the indicators.

Sierra Leone Food Security Trends (FSMS)



Total Food Insecure



Recommendations

Considering the level of food insecurity levels due to lack of access to nutritious food because of the numerous economic vulnerabilities such as high food prices, high food inflation and the continuous depreciation of the local currency coupled with the root causes, low productivity of rural households involved in agriculture and the poor agricultural practices will further exacerbate the situation if the following recommendations are and not addressed:

- Expand shock responsive social protection programmes and revise transfer values to be in line with current costs of Minimum Essential Needs.
- Provide emergency assistance to most vulnerable households to support food and nutritional intake.
- Increase investment in agriculture, directed at small holder level, by providing credit facility in the form of farming inputs such as improved seeds, chemical fertilisers, and improved farm tools.
- Expand soil and water conservation farming techniques; soil testing; market linkages of smallholder farmers to improve access to improved seeds and organic fertilizer
- Emphasis on climate smart agriculture and encouraged smallholder farmers to embark on perennial farming and diversify crops.
- Increased investment in reducing post-harvest losses and affordable value-added agricultural technics.

Background & Context

WFP, in collaboration with Ministry of Agriculture and Food Security conduct Food Security Monitoring System (FSMS) surveys bi-annually during the lean season (July-September) and post harvests (January-March) to monitor the food insecurity situation across the country. Overall, household food insecurity and vulnerability have worsened over the past ten years¹. Like many other fragile economies around the globe, the rate of deterioration in Sierra Leone has been following a significantly steeper curve over the past 2 years due to negative impacts of the COVID-19 pandemic and the global food crisis since the start of the Russia – Ukraine war.

During the period leading up to the data collection, prices of the staple food commodities continued to increase in local markets, following suite with the trends in national macro-economic indicators. The price of rice has experienced an almost 45 percent increase in 2022 with a close disparity between local and imported rice which experienced price increases of 47 percent and 42 percent respectively. Price of Casava leaves increased by over 70 percent along with the price of Gari, the flour of the cassava root. Price of palm oil which local households utilize due to its comparatively higher availability and cheaper price, increased by 108 percent². These sharp increases in commodity food prices are reflected in the findings and should be seen as early signs of a wider and more severe food security crises in the coming months, leading up to the lean season as household income levels remain stagnant against higher expenditure costs.

In addition to increasing food commodity costs, recent macro-economic trends also impacted the agricultural production due to increased input costs such as fertilizers, seeds and high transportation costs to markets. Considering the nation's economy's dependence on agriculture sector, which constitutes over half of its GDP, these stressors translate into increased food insecurity levels in the majority of Sierra Leonean population living in both in rural and urban areas.

Objectives

The main objective of the FSMS is to provide accurate information about household food security and vulnerability levels in the country twice a year, during post-harvest, and lean seasons. Collected data provides insights at both national and district levels to enable targeted short and long-term programming. The main outcome is to support Sierra Leone's achievement of Sustainable Development Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Methodology of FSMS

A Total of 5120 households were surveyed across the nation and a minimum sample size per district was calculated as 306 for February 2023 FSMS data collection. The number of districts in Sierra Leone is 16 after the de-amalgamation of districts in 2017 and the Western Area was divided into two areas to accurately capture the difference between the conditions of households living in the city center and surrounding areas. In addition, the Global Acute Malnutrition rate of a total of 2,635 children aged 6-59 months by screening their Mid-Upper Arm Circumference (MUAC) to measure child nutrition status in all survey locations.

¹ Comprehensive Food Security and Vulnerability Assessment 2020.

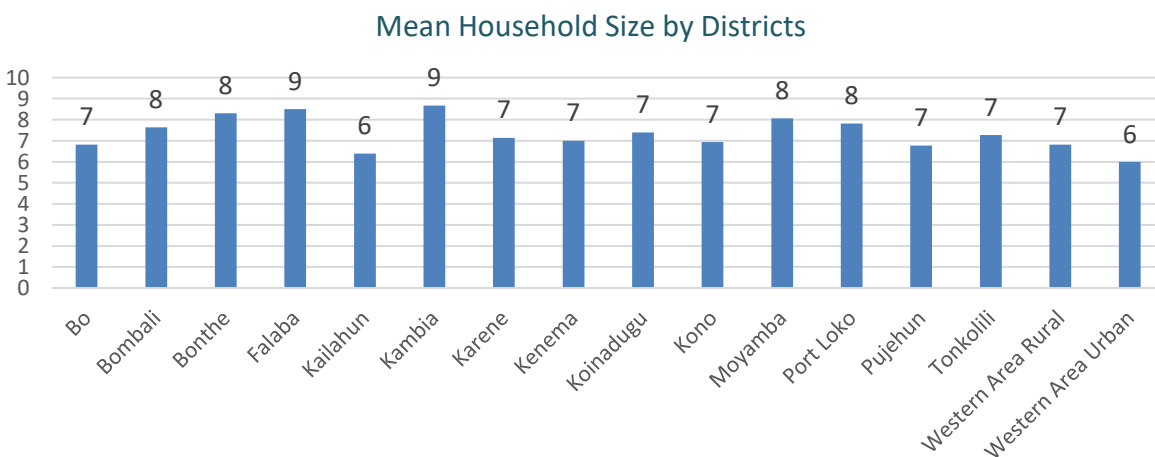
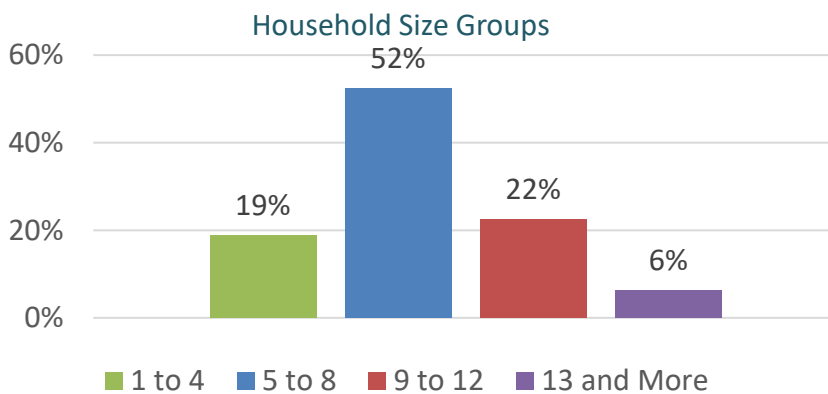
² WFP Sierra Leone Q4, 2022 Market Price Bulletin.

Data was collected digitally using tablets with to access the Open Data Kit (ODK) platform which contained the digital survey form comprised of food security indicators to guide enumerators when conducting interviews. Data collection was conducted by 120 enumerators and 16 senior enumerators who were trained prior to data collection and were supervised during by WFP RAM and national cooperating partner staff.

Households' Demographic Profile

Household Size

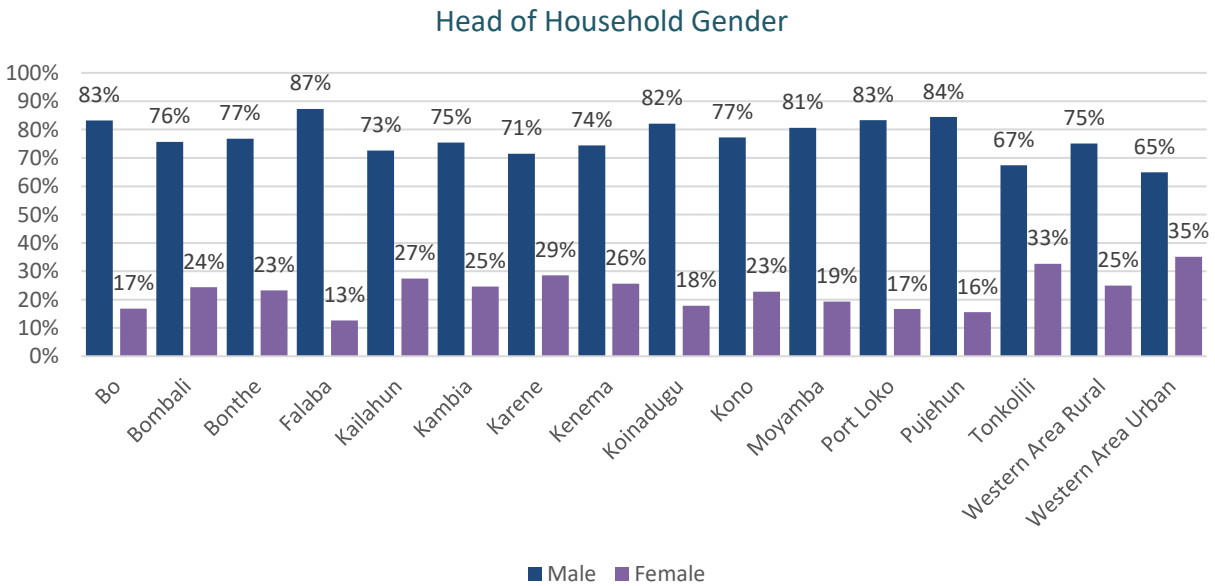
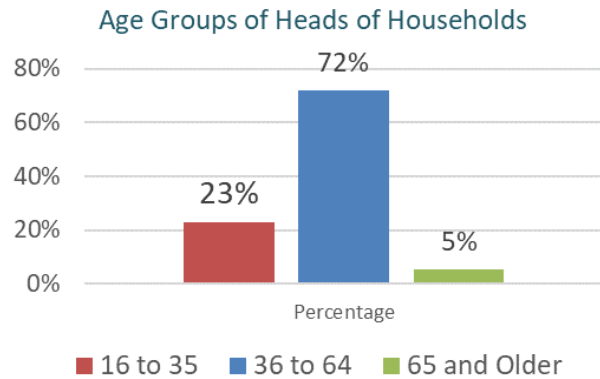
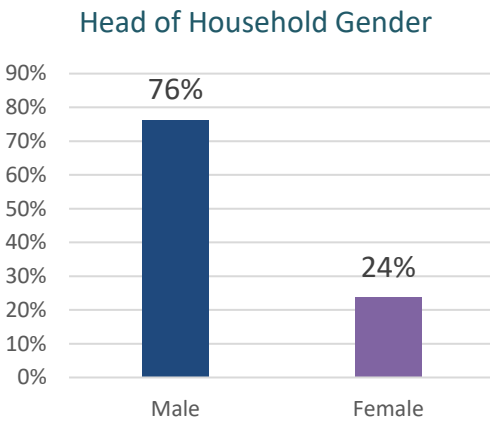
Amongst the 5120 participant households mean household size was 7.3 and when broken down into categories 52 percent were comprised of 5 to 8 members followed by 22 percent comprised of 9 to 12 members, 19 percent were comprised of 1 to 4 members and lastly 6 percent were comprised of 13 or more members. When examining the mean household sizes by districts, households in Bonthe, Falaba and, Moyamba had mean household sizes of 8 and above. On the lower end Western Area Urban had a mean household size of 6.



Head of Household Demographics

76 percent of the survey participant households were headed by men and 24 percent were headed by women, further breakdown of heads of households disaggregated by gender and districts showed Western Area Urban had the least discrepancy between male and female headed households with values 65 percent and 35 percent respectively, on the other hand, Falaba had the highest discrepancy with 87 percent of the households headed by men and only 13 percent by women.

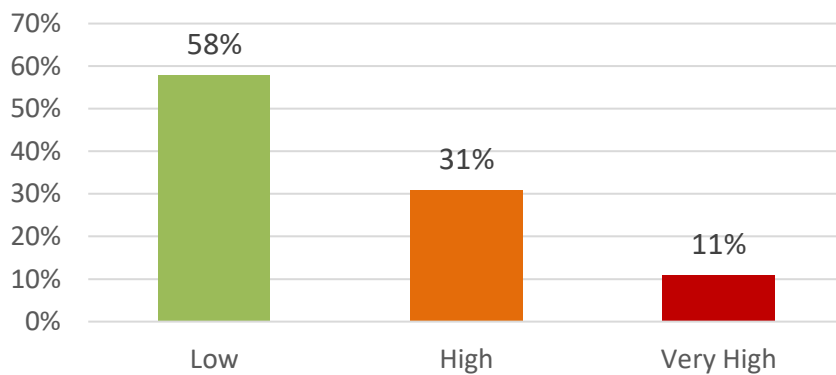
Distribution of head of households into age categories showed that 72 percent of the decision makers in the households were between the ages of 36 to 64 followed by 23 percent in the age group of 16 to 35 and lastly 65 years old and over with 5 percent. Amongst all districts Western Area Rural had the highest share for young heads of households with 30 percent between the ages of 16 to 35 and lowest share of head of households over the age of 65 with 1.3 percent. The district of Bonthe had the highest share of elderly head of households with 7.5 percent.



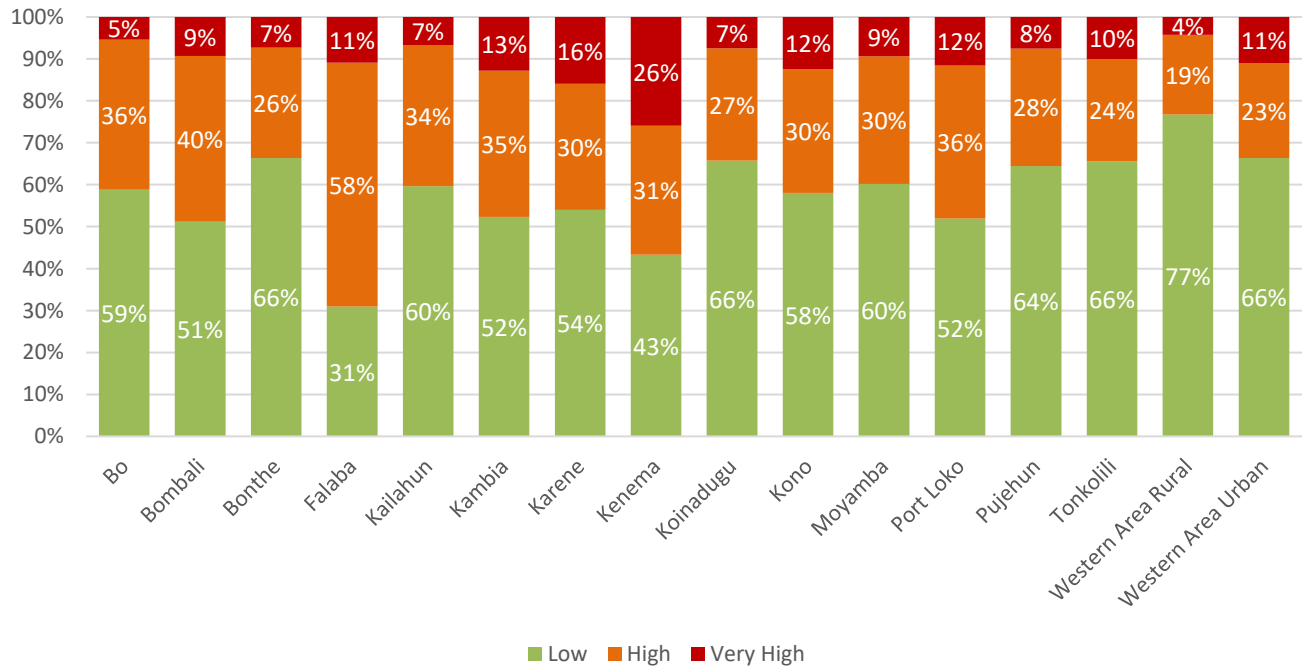
Dependency Ratio

Dependency ratio is an important indicator often included in the beneficiary selection methodologies for humanitarian assistance. The indicator is calculated by dividing the number dependents (children and elderly) by the number of able-bodied adults in targeted households. When examining the figure for FSMS participant households the results showed 58 percent of the households had a low dependency ratio of below 1.5 while 31 percent had a high dependency ratio of between 1.5 to 3 and lastly 11 percent of the households had a very high dependency ratio of 3 and above. When further disaggregated by districts Western Area Rural had the biggest share of its households within the low category at 77 percent while again Kenema and Karene had 26 percent and 16 percent of their households in the very high dependency ratio category.

Dependency Ratio of Households

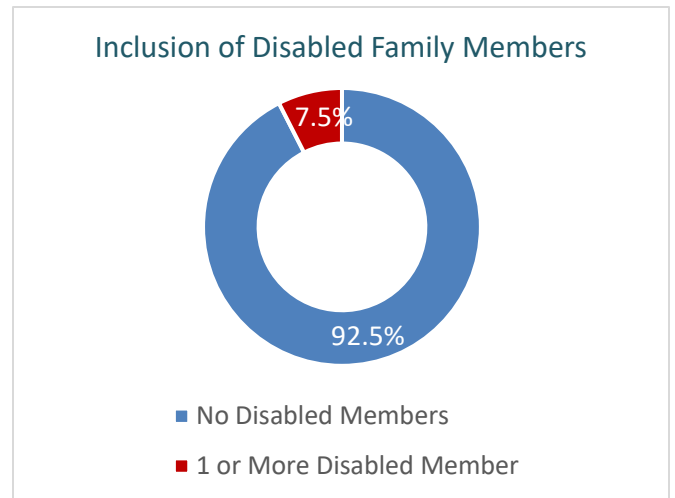
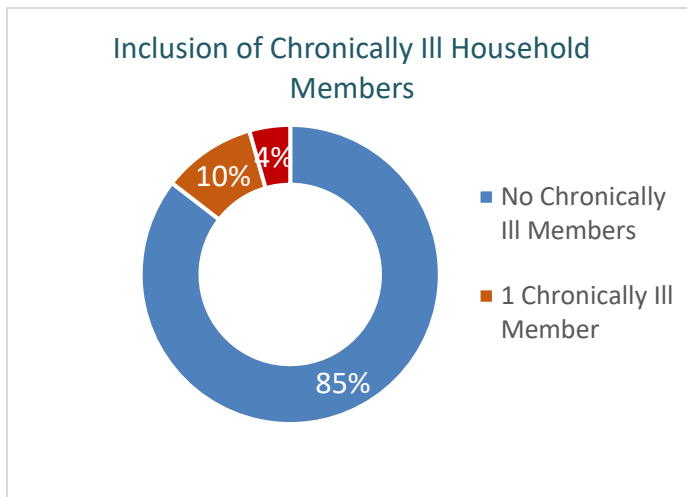


Distribution of Households by Dependency Ratios and Districts



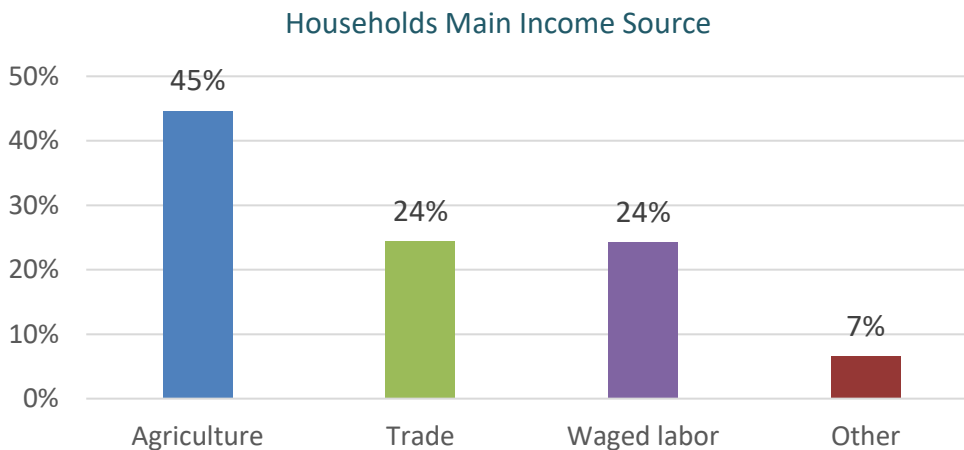
Disability and Prevalence of Chronical Illnesses

Furthermore, inclusion of disabled and chronically ill family members is also an important indicator often used for beneficiary selection methodologies. according to survey results 7.5 percent of the participant households included at least 1 disable household member and when examining the chronically ill family members 15 percent of the households included at least 1 family member who are chronically ill.

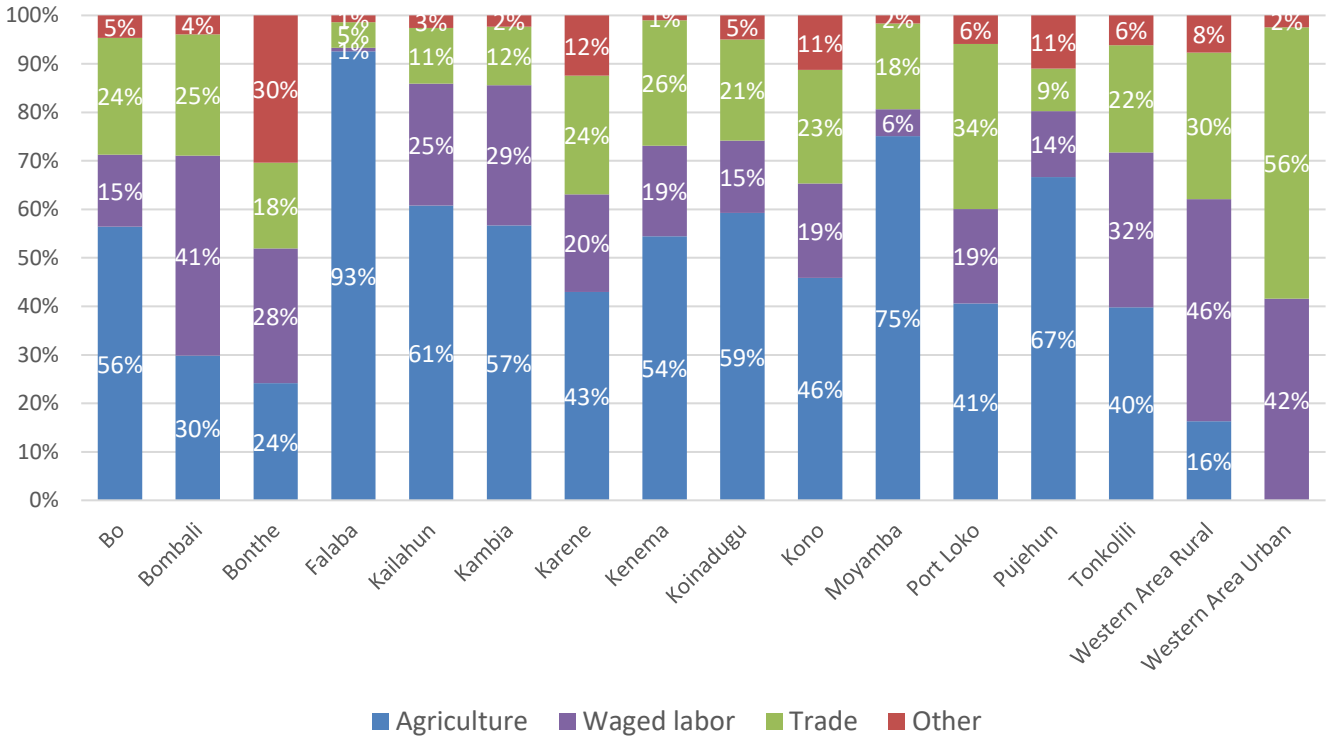


Household Income Source

The most common main income source for participant households was agriculture with 45 percent followed by trade and waged labor with 24 percent for both categories, lastly, 7 percent of the households stated that their main income was derived from other activities such as remittances, pension, and aid/gifts. Districts of Falaba and Moyamba had the highest shares for Agriculture as main income source for households with 93 and 75 percent respectively.



Households by Main Income Source and by Districts



Food Security Indicators

Food Consumption Score

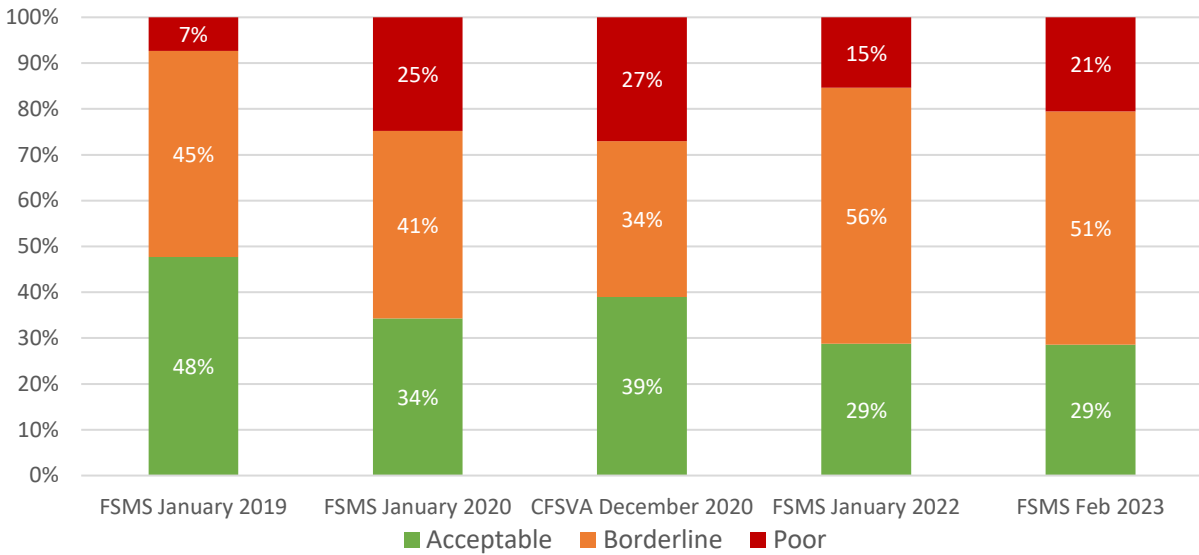
The Food Consumption Score (FCS) assesses the quantity and quality of diets consumed by the households participated in the survey. The indicator allows for measuring the dietary diversity, food consumption frequency and the relative nutritional value of the food items consumed³. The FCS is computed from a 7-day recall period and the number of times food items consumed during these 7 days. The months leading the data collection, December to February is the period when food availability at household level is likely to be highest within the year due to own crop production.

According to latest survey results 21 percent of the Sierra Leonean households fall within the poor food consumption score category, which is a 6 percentage points deterioration from the 15 percent reported during the last post-harvest period in January 2022 and 14 percentage points deterioration from January 2019.

Although the findings for share of households with acceptable food consumption levels remained the same at 29 percent compared to the same period last year, it should be noted the current figure is still 19 percentage points lower compared January 2019 findings and 15 percentage points lower compared to January 2020 just prior to onset of global pandemic.

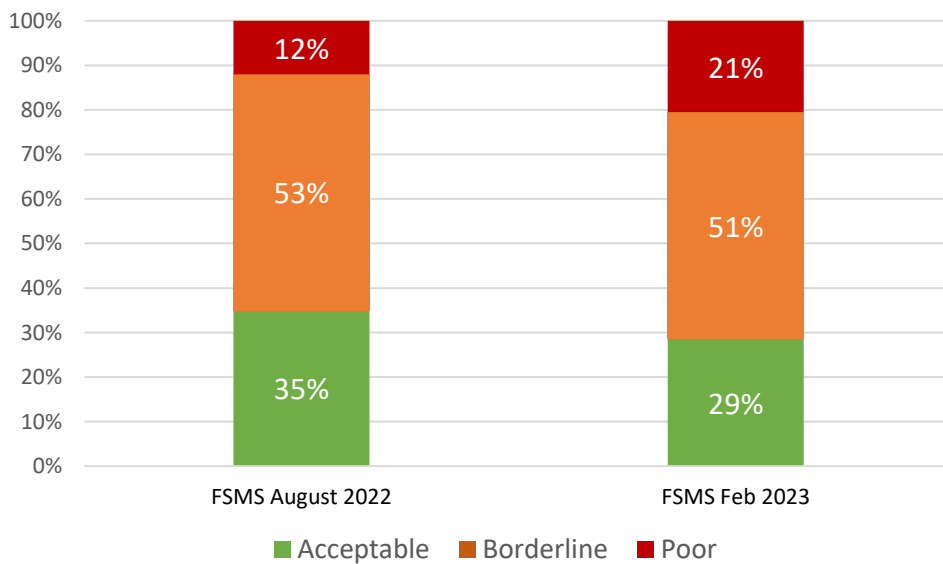
³ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

FCS Trends in Post Harvest Seasons



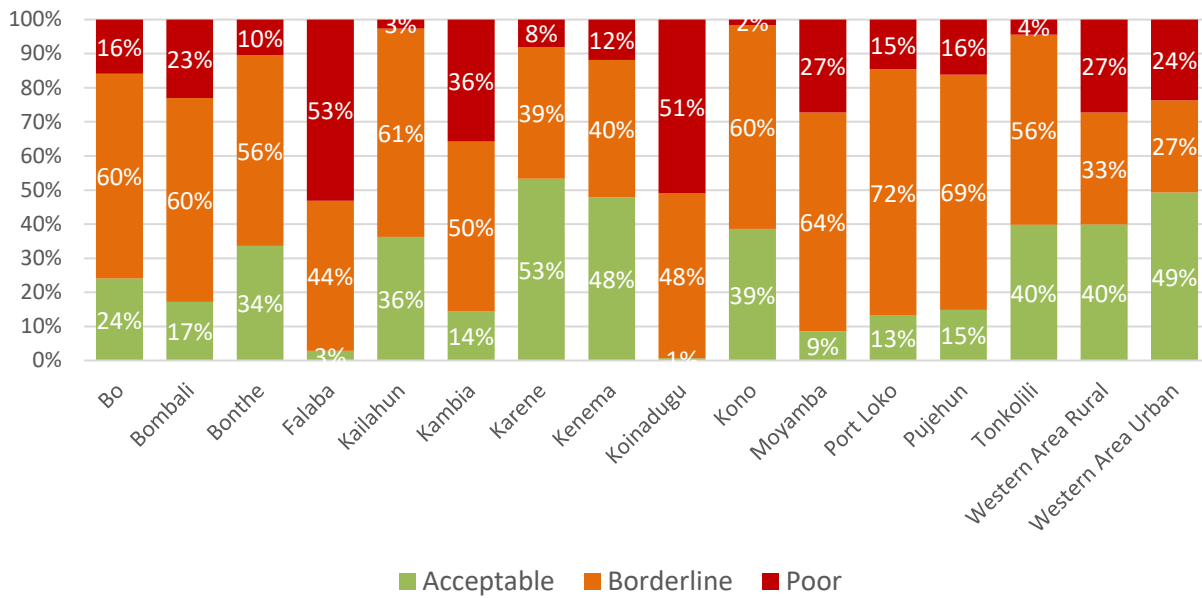
The deterioration in food consumption scores was also observed when compared to the findings of the FSMS conducted in August 2022, during the lean season, when 12 percent of the households were within the poor food consumption score category and according to latest round this group now represent at 21 percent of the households. This finding reflects an amalgamation of the trends observed during the previous rounds of FSMS where economic stressors are now impacting the food security levels beyond the offset of seasonal effect of agricultural production cycle.

Food Consumption Scores August 2022 vs February 2023



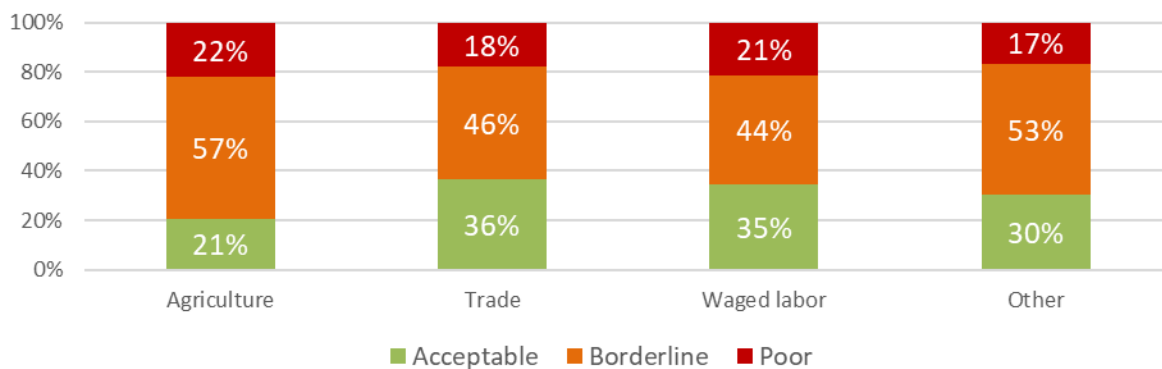
When the results were disaggregated by districts, findings revealed an alarming picture for Falaba, Koinadugu and Moyamba districts where less than 10 percent of the households were within the acceptable food consumption bracket with 3 percent, 1 percent, and 9 percent respectively. Furthermore, the former two districts also contained the highest shares of households in poor food consumption score group with Falaba at 53 percent, Koinadugu at 51 percent, with addition of Kambia at 36 percent.

Food Consumption Score Groups by Districts



On the other hand, when looking at the districts with the lowest share of households in poor food consumption category, the findings included the districts of Kono with 2 percent, Kailahun with 3 percent, Tonkolili with 4 percent and lastly Karene with 8 percent.

Food Consumption Score by Household Income Source



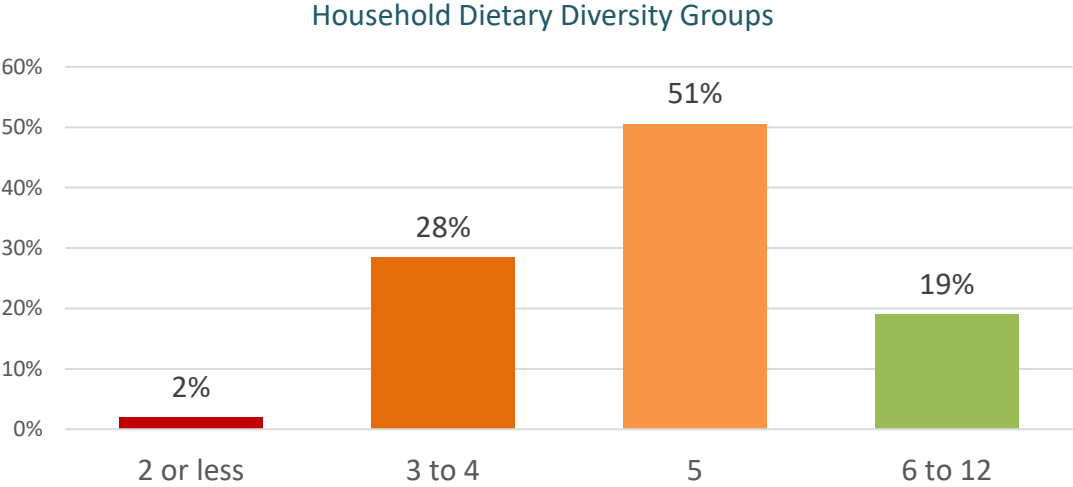
When participant households' food consumption scores are cross tabulated by their main income source the figures showed that households who mainly depend on agriculture for their income have considerably lower food consumption scores compared to others. Only 21 percent of households deriving their income from agriculture have acceptable food consumption scores whereas for those who derive their income from trade, waged labor and by other means this figure was 36 percent, 35 percent, and 30 percent respectively.

It should be noted that Food Consumption Score is a proxy indicator that does not provide information on the amount of food consumed or the caloric intake received, these findings are reported under minimum expenditure basket and economic capacity to meet essential needs sections later in the report.

Household Dietary Diversity Score

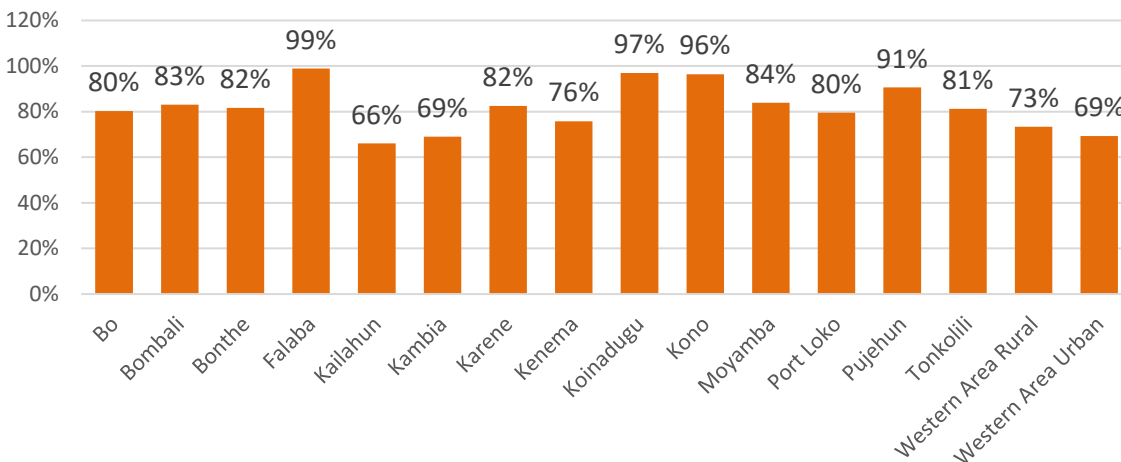
Household Dietary Diversity Score (HDDS) assesses the number of unique foods consumed by household members during the 24 hours preceding the survey interviews. HDDS can be used as a proxy measurement of household food access and quality of diets consumed ⁴.

As a results of the underdeveloped infrastructure, lack of machinery for application of modern agricultural techniques and widespread utilization of traditional smallholder agricultural practices, access to a diverse and nutritionally rich diet is out of reach for majority of Sierra Leoneans. The findings from the survey reflects this reality in sharp contrast as 81 percent of the households reported consuming 5 or less different food items. which is below the acceptable levels furthermore 8 percent of the households reporting consuming 3 or less types of food items.



⁴ FANTA Project; Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide.

Share of Households with Dietary Diversity Score of Five or Less



Reduced Coping Strategy Index

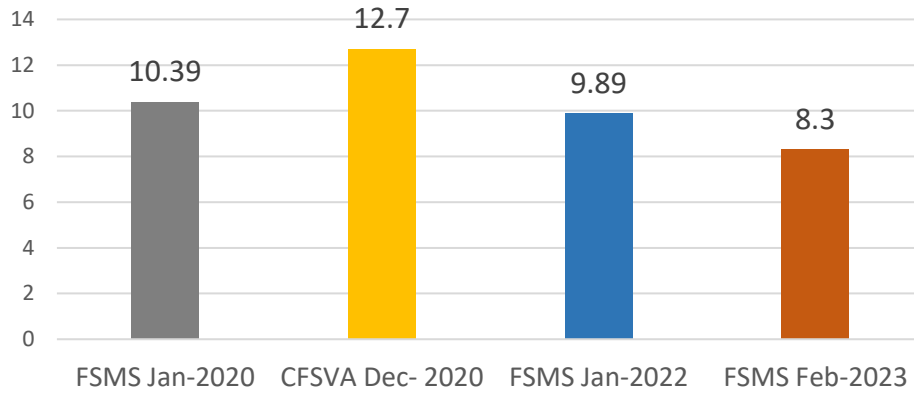
The Reduced Coping Strategy Index (rCSI) is an indicator used to measure the impacts of hardships faced by households on their food consumption habits. The index measures the frequency and severity of the food consumption related coping mechanisms the households engaged in the 7 days reference period prior to the survey⁵. The index is based on five coping strategies as follows:

- i. Rely on less preferred and less expensive food
- ii. Borrow food or rely on help from relative(s) or friend(s)
- iii. Limit portion size at meals
- iv. Restrict consumption by adults for small children to eat
- v. Reduce number of meals eaten in a day

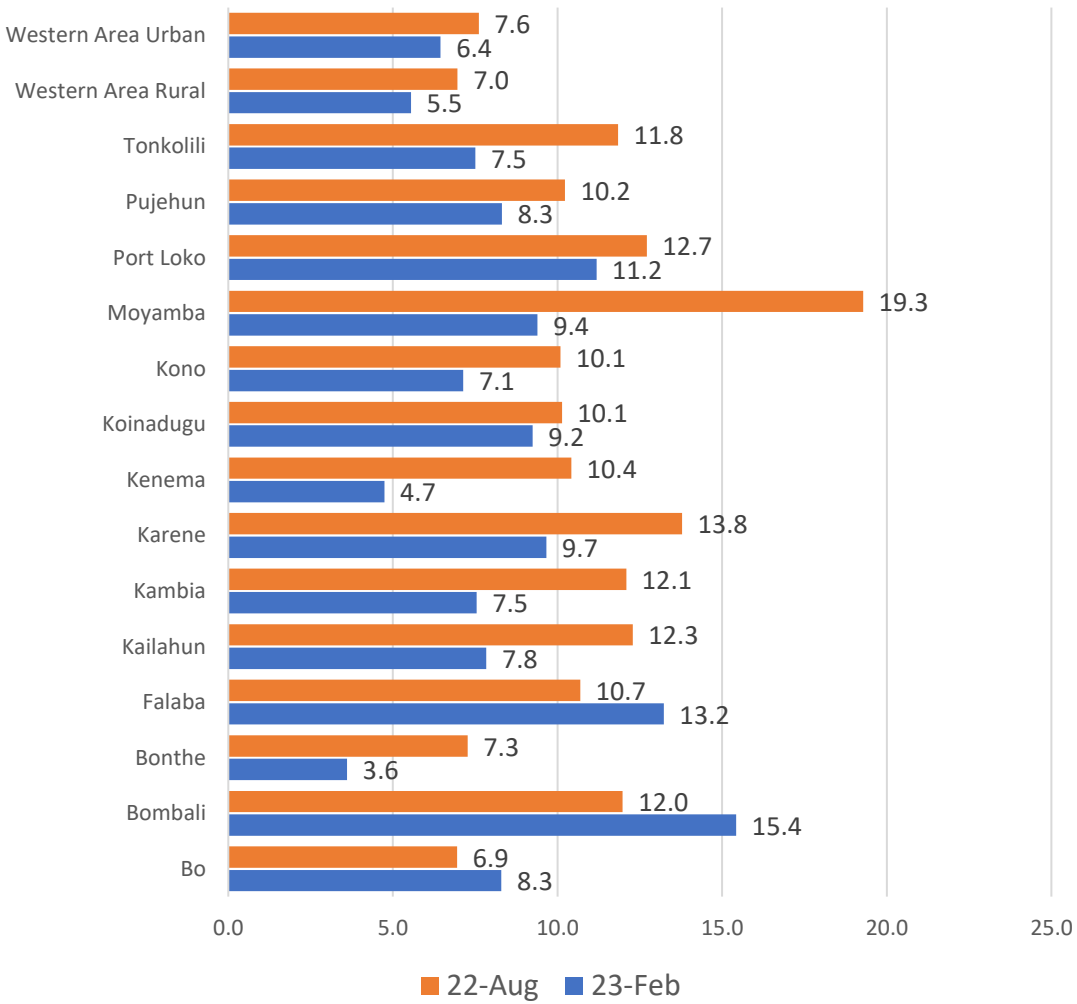
Higher rCSI scores indicates higher vulnerability levels for the households. The national average rCSI score in February 2023 was 8.3. When the results are disaggregated by geographic location, Bombali district reported the highest average rCSI score of 15.4 and the following districts had above the national average rCSI score with Falaba 13.2, Port Loko 11.2, Karene 9.7 Moyamba 9.4 and Koinadugu 9.2

⁵ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

rCSI Post Harvest Trends

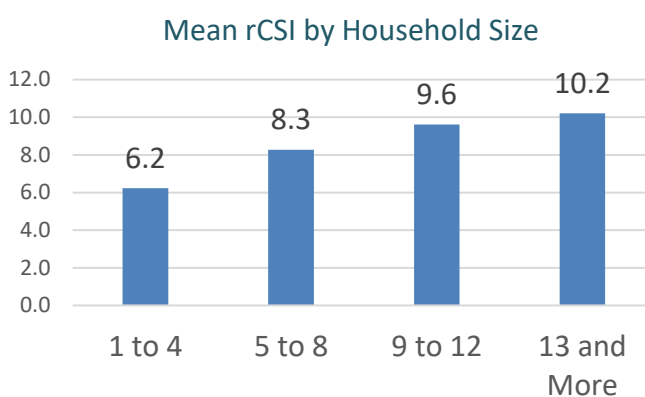
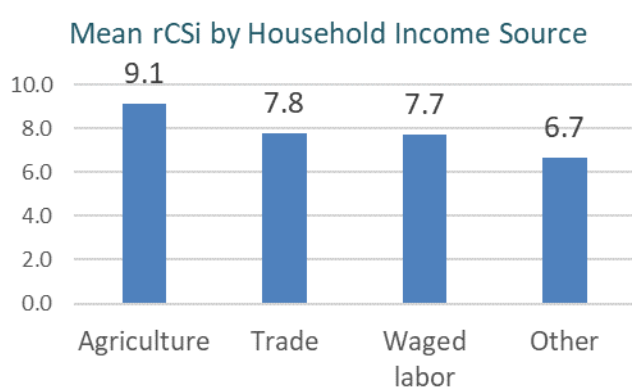


Mean rCSI by Districts



When examining the average rCSI value by household size, a positive correlation becomes visible where the households with more members had considerable higher rCSI scores. According to survey results households comprised of 1 to 4 members had an average rCSI score of 6.2 below the national average figure, households with 5 to 8 family members had an average rCSI score of 8.3 at national average and households with 9 to 12 members and 13 and more members had average rCSI scores of 9.6 and 10.2 respectively at above national average levels.

When examining the rCSI values of households according to their main sources of income, only those who rely on agriculture had average scores above the national figure with 9.1 and the remaining households had average rCSI values below the national levels.



Livelihood Coping Strategies

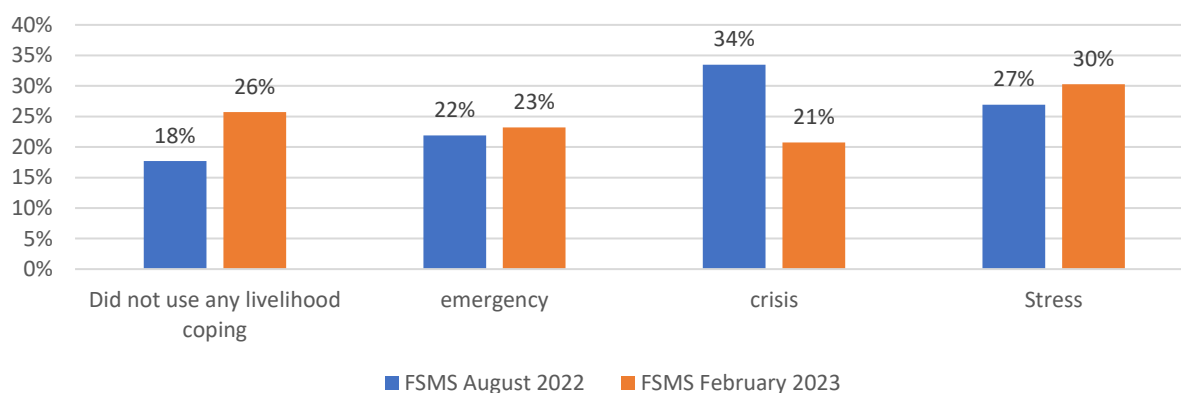
Livelihood coping strategies is an indicator used to understand medium and longer-term coping capacity of households in response to lack of food or lack of money to buy food (or essential needs) and their ability to overcome challenges in the future⁶. The indicator is derived from 10 questions regarding the households' experiences with livelihood stress and asset depletion to cope with food shortages. The questions consist of at least 4 stress coping strategies, 3 crisis coping strategies and 3 emergency coping strategies that are most relevant for the Sierra Leone context. Stress strategies indicate a reduced ability to deal with shocks because of a current reduction in resources or increase in debts. Crisis strategies are often associated with the direct reduction of future productivity. Emergency strategies also affect future productivity but are more difficult to reverse or more dramatic in nature than crisis strategies. The following 10 questions were asked for each category:

⁶ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

Stress	Crisis	Emergency
Sold household assets/goods	Sold productive assets or means of transport	Sold house or land
Purchased food on credit	Reduced health and educational expenditures	Begged
Spent savings	Withdrawn children from school	Sold last female breeding stock, eat seed stocks
Borrowed money		

The proportion of households that adopted emergency coping in the current period was 23 percent and is far higher than the same period last year February 2022 at 9 percent, However, comparing the emergency coping to the lean season last year in August 2022 the result shows a marginal increase from (22 percent) to (23 percent). This could be attributed to deterioration of household assets and income levels that were experienced because of continued bad years of economic performance further worsened by the global events such as COVID-19 pandemic and the war between Russia and Ukraine.

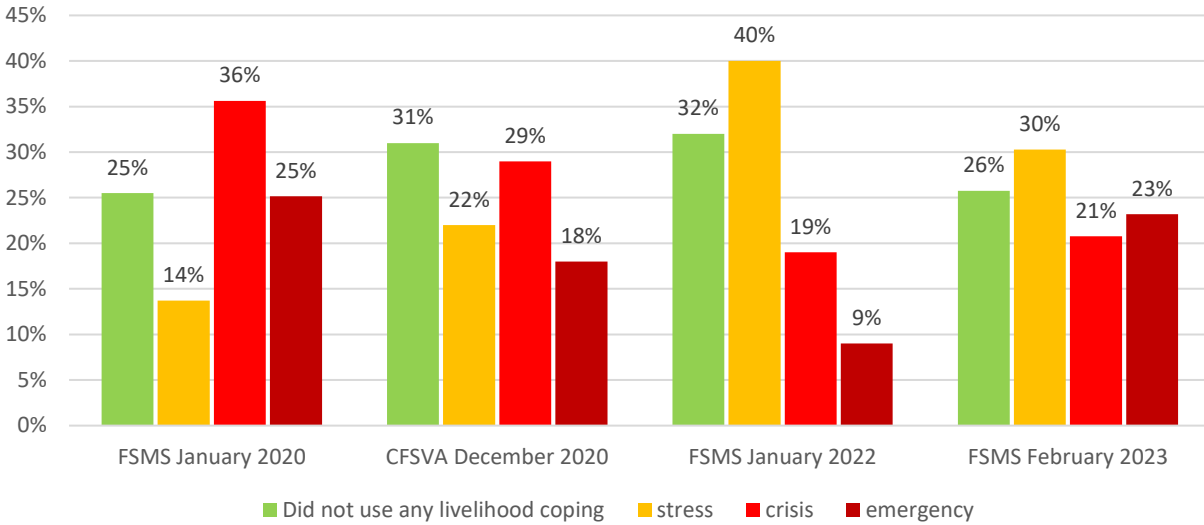
LCSi Lean and Post Harvest



Regarding the crisis coping strategies the latest adoption rate was also higher when compared to same period last year with 21 percent of participant households reported adopting crisis coping strategies in the latest survey compared to 19 percent in February 2022. When examining the LCSi figures by location Falaba (77 percent), Kambia (39.3 percent), Karene (35.6 percent) and Port Loko (32.6 percent) were the districts with the highest proportion of households reporting adoption of emergency coping strategies.

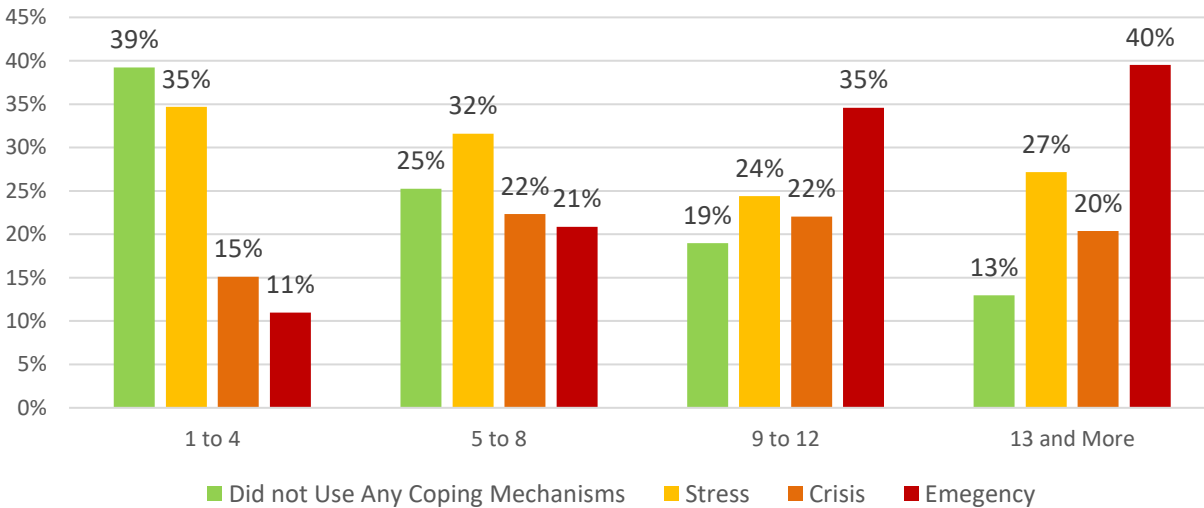
The latest results also show that the proportion of households that did not employ any livelihood coping strategies was lower at 26 percent compared to the same period a year ago in February 2022 at 32 percent (Figure 6). When compared to August 2022 lean season only 18 percent at that time did not adopt any livelihood coping strategies which may suggest a seasonality effect due to agricultural production cycle.

Adoption of Livelihood Coping Strategies in Post Harvest Seasons



Similar to rCSI, LCSi indicator also showed a positive correlation with households’ size according to latest results. Above 35 percent of larger households comprised of 9 or more members adopted crisis coping mechanisms above the national average. Only 11 percent of smaller households comprised of 1 to 4 members adopted crisis coping mechanism while 21 percent of medium sized households adopted crisis coping mechanism at slightly lower rate than the national average value.

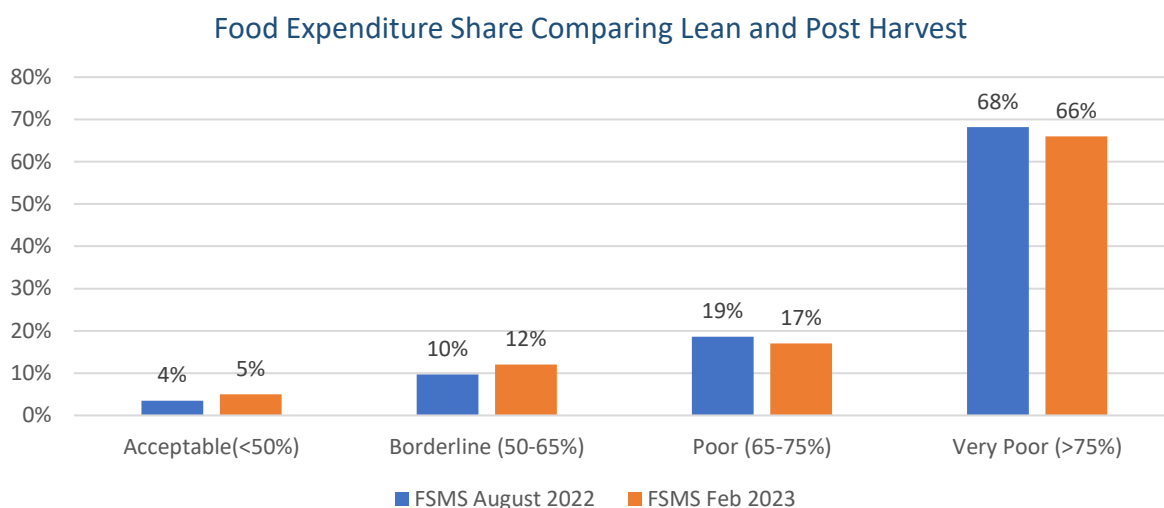
Adoption of Livelihood Coping Strategies by Household Size



Food Expenditure Share

The food expenditure share measures the economic vulnerability of households based on the premise that the greater the expenditure on food when compared to other essential needs, the more economically vulnerable the household is. When the level of income reduces or when prices increase, the share of food expenditure as a proportion of total expenditure also increases. For poor households this means reducing expenditure on other essential non-food items and services, such as education and health, eating less or eating less preferred foods that are cheaper⁷.

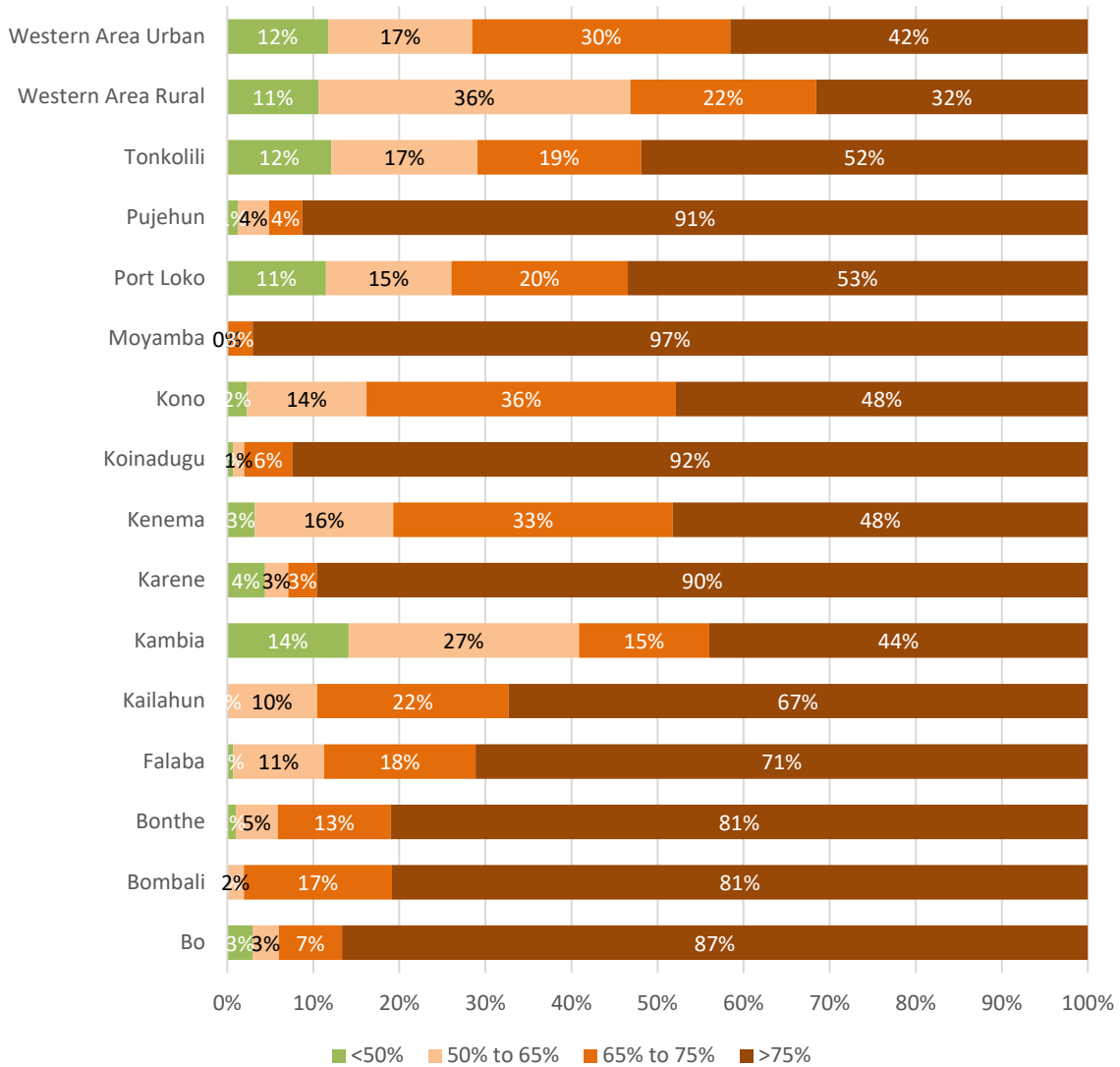
66 percent of the survey participant households reported spending more than 75 percent of their total expenditure on food, and 25 percent on all other essential needs. Although the results show a slight decrease compared to 68 percent from the last assessment conducted in August 2022 the latest figure remains very high as the latest figures was captured after the harvest season which once again points to diminishing impact of seasonality from the agricultural production cycle. Furthermore, it should be noted when the shares of household that spend over half of their expenditure on food summed up the results add up to 95 percent of Sierra Leonean households.



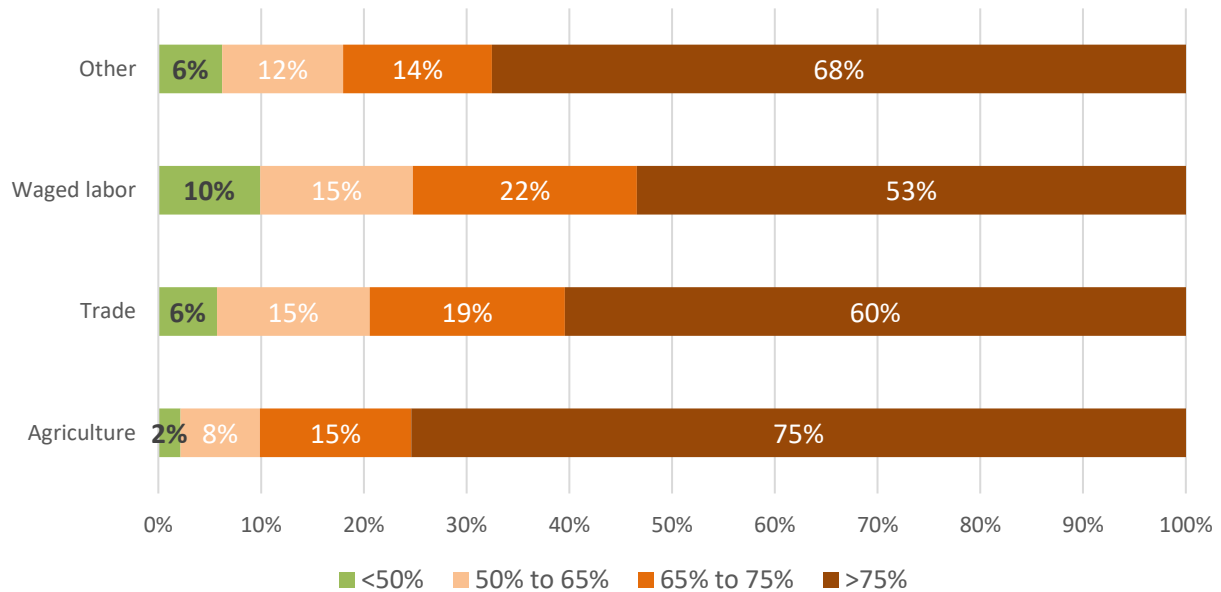
Districts that reported the highest share of their populations with food expenditure spending above 75 percent of their total household expenditure included Moyamba with 97percent, Koinadugu with 92 percent, Pujehun with 91 percent and Karene with 90 percent. These are some of the poorest and most vulnerable districts in the country which relies more on crop production and are prone to climatic and economic shocks. The impact of recent spike in fertilizers prices may point to lower levels of household income hence the higher share of food expenditure.

⁷ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

Household Food Expenditure Share by Districts



Food Expenditure Share by Income Source

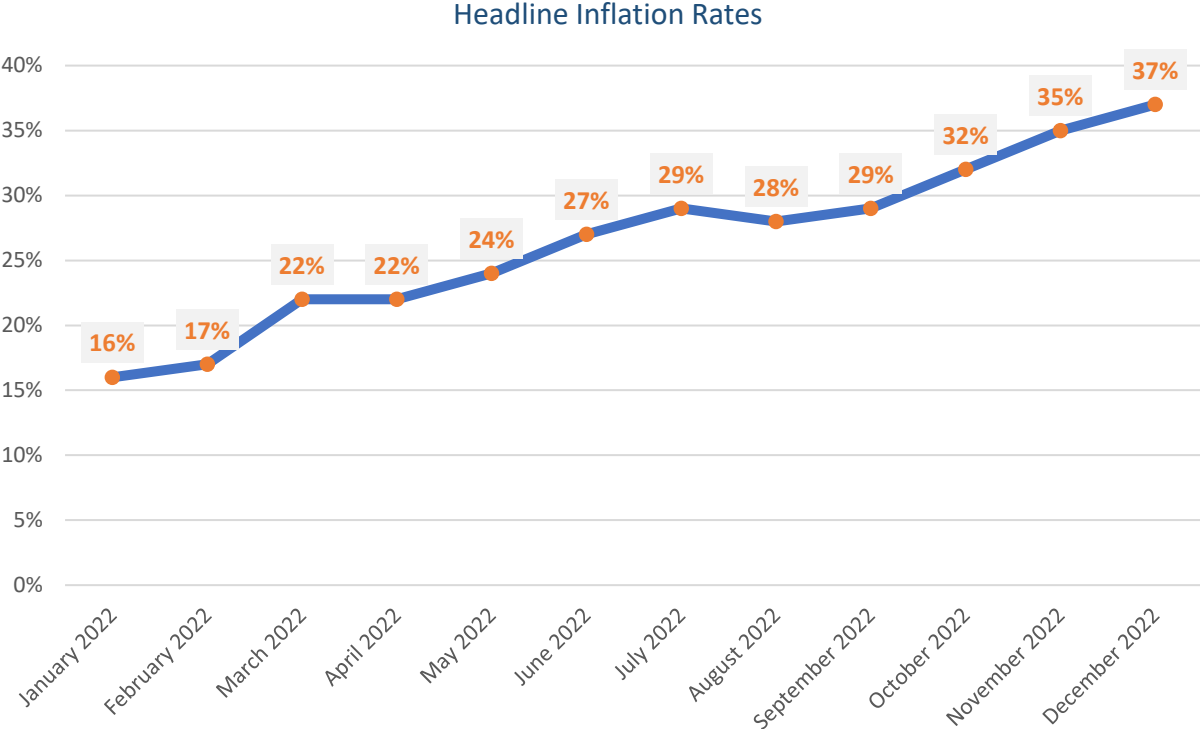


When examining the food expenditure share levels by disaggregating the households by their main income source households who rely on agriculture once again showed higher vulnerability levels like their consumption and livelihood coping mechanism rates. 75 percent of households with their main income as agriculture spent three quarters of their total expenditure on food while this figure was 68 percent, 60 percent, and 53 percent for households with main income sources of other (*remittances, pension, gift/aid*), trade and waged labor respectively.

Market Conditions

Inflation

General Inflation rate reached 37 percent (YoY) in December following the upward trends from November at 35 percent (YoY) and October 33 percent (YoY). When looking at the quarterly averages, 2022 figures clearly present a deepening market prices crises where average quarterly inflation rose by over 16 percentage points from 18 percent in Q1 2022 to 34 percent in Q4 2022 whereas the previous year recorded 5 percentage points increase from 9 percent in Q1 2021 to 15 percent in Q4 2021. In addition to the stark contrast from the previous year, in 2022 the country experienced inflation rates higher than any other year in the past two decades⁸.

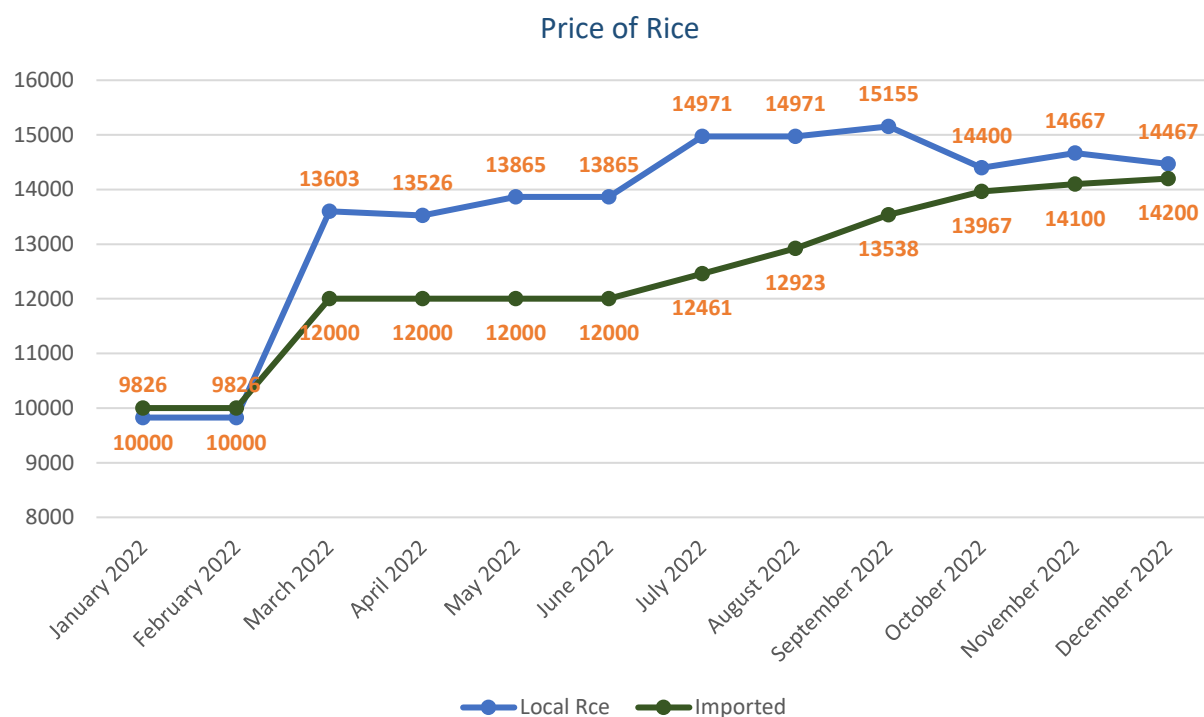


The current levels of the historically high inflation rates in Sierra Leone underlines the severity of the impact from COVID-19 pandemic and its subsequent negative effects on its local economy as well as the recent sharp increases of food prices in global markets due to the supply chain constraints caused by the conflict between Russia and Ukraine. The high levels of general inflation rates also constitute a hindrance for the recovery of local economy in the short run by decreasing the purchasing power of Sierra Leonean population. While the trends in general inflation rate is already alarming, inflation rate for food and non-alcoholic beverages reached 46.7 percent (YoY) in the final month of 2022, the continued steep increases in food commodity prices threatens to worsen the already declining food security levels in the country.

⁸ WFP Sierra Leone Q4, 2022 Market Price Bulletin.

Food Commodity Prices

The price of rice has experienced almost 45 percent increase in 2022 with a close disparity between local and imported rice which experienced price increases of 47 percent and 42 percent respectively. Price of Casava leaves, a commodity often consumed in Sierra Leonean meals, increased by over 70 percent along with the price of Gari, the flour of the cassava root. Prices of cooking oils that local households utilize such as palm oil and vegetable oil increased by 108 percent and 56 percent respectively, however it should be noted that due to its cheaper price and availability Palm oil is consumed at a significantly higher rates compared to vegetable oil. Prices of vegetables such as Okra and Onions increased by 29 percent and 39 percent respectively from the beginning of the year however prices of both commodities increase at higher rate from the third quarter to fourth quarter of 2022 by 45 percent for Okra and 51 percent for Onions. Lastly prices of smoked sardines and Bonga fish increased by 129 percent and 31 percent respectively⁹.

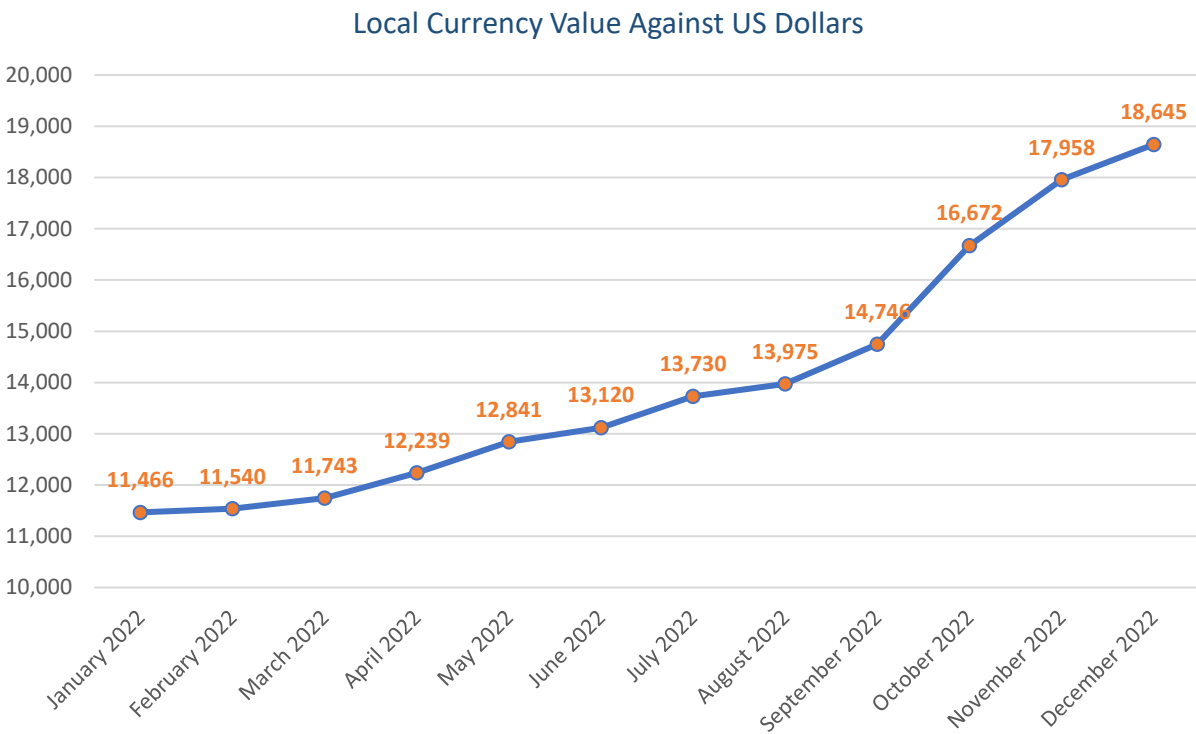


⁹ WFP Sierra Leone Q4, 2022 Market Price Bulletin.

Commodity Item	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Annual Price Change
Black Eye Beans	22,419	22,419	22,419	22,419	22,877	22,877	23,327	23,327	23,327	21,746	20,769	20,385	-9%
Bonga	78,003	78,003	141,117	141,117	141,117	141,117	141,117	141,117	141,117	108,838	105,505	102,172	31%
Broad beans	9,319	9,319	9,319	9,319	9,319	9,319	9,319	9,319	9,319	16,296	16,790	17,284	85%
Cassava	3,633	3,633	4,239	4,137	4,216	4,216	4,216	4,216	5,275	4,189	4,171	4,374	20%
Cassava Leaves	3,076	3,076	5,933	5,933	5,933	5,933	5,933	5,933	5,933	5,480	5,807	5,321	73%
Gari	4,274	4,274	4,274	4,274	4,274	4,274	4,274	4,274	4,274	6,556	7,061	7,364	72%
Groundnut Shelled	16,783	16,783	20,279	20,279	20,978	20,978	24,008	24,008	24,008	17,980	18,182	18,485	10%
Maize	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	15,556	17,778	18,366	184%
Meat - Beef	82,906	84,615	121,367	121,367	121,367	121,367	121,367	121,367	121,367	95,556	98,517	100,000	21%
Oil Palm	12,903	12,903	14,764	15,632	15,632	17,369	17,990	17,990	19,230	25,269	25,215	26,882	108%
Oil Vegetable	24,689	27,543	32,258	32,258	32,258	33,250	34,491	34,491	37,221	37,849	38,839	38,495	56%
Okra	19,230	19,230	19,230	19,230	19,230	19,230	19,230	19,230	19,230	26,370	32,507	24,819	29%
Onions	15,070	15,070	15,070	15,070	15,070	15,070	15,070	15,070	15,070	24,048	23,011	21,020	39%
Pepper Dry	87,179	87,179	100,000	100,000	100,000	100,000	100,000	100,000	100,000	81,778	93,778	97,333	12%
Pigeon Pea	16,681	16,681	18,424	18,424	18,507	18,507	19,099	19,099	19,099	14,953	15,377	15,052	-10%
Potato Leaves	2,243	2,243	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,060	3,855	3,708	65%
Rice Imported	10,000	10,000	12,000	12,000	12,000	12,000	12,461	12,923	13,538	13,967	14,100	14,200	42%
Rice Local	9,826	9,826	13,603	13,526	13,865	13,865	14,971	14,971	15,155	14,400	14,667	14,467	47%
Salt	3,846	3,846	3,846	3,846	3,846	5,096	8,136	8,136	8,136	7,996	9,409	10,527	174%
Smoked Herring	19,230	19,230	19,230	19,230	19,230	19,230	19,230	19,230	19,230	43,916	48,609	44,077	129%
Sugar	14,615	14,615	14,615	14,615	14,615	14,615	14,615	14,615	14,615	19,778	19,833	20,083	37%

Currency Exchange Rates

The depreciation of the national currency gained acceleration in 2022 bringing the value of SLL to 18.645 against the US Dollar in December 2022 with an annual loss of 61 percent of its value. Compared to changes in the currency value last year, which was 10 percent, the rapid decline in 2022 underlines the fragile state of its economy against the political and economic shocks in the international markets. As a net importer country Sierra Leone relies on imported goods for meeting the supply demands of its local economy and the decreasing value of the local currency continues to be a significant hindrance for access to vital commodities including food and medicine¹⁰.



¹⁰ WFP Sierra Leone Q4, 2022 Market Price Bulletin.

Minimum Expenditure Basket¹¹

The MEB serves a variety of purposes for humanitarian assistance operations as it can be used for identifying characteristics of vulnerable households who cannot afford their essential needs. The basket value is also used for monitoring the impact of economic trends on household's food consumption habits. The outcome of these use cases is integral to many WFP processes ranging from establishing a baseline for measuring households' economic capacity to meet its essential needs, included in this report in following section, and providing guidance during beneficiary selection methodologies as well as setting assistance amounts. For these purposes of reporting on the ECMEN indicator, included in the following section of the report, based on the data collected during the latest FSMS assessment an MEB value of 3300 SLE was established for a family comprised of 6 members. This figure was calculated based on the global guidance notes for humanitarian assistance operations including SPHERE standards and WFP Corporate guidance notes on the subject matter¹².

A reference cohort was selected from the survey participants households for constructing the food basket component of the MEB. In order to ensure mediocrity of the selected cohort only household with food consumption scores of above 35, who did not adopt crisis or emergency coping strategies and lastly, whose expenditure was between the highest and lowest groups were selected.

Household Total Expenditure (SLE)	Household Food Expenditure (SLE)	Household Non Food Item Expenditure (SLE)	Food Expenditure Share	Non Food Item Expenditure Share	Actual Daily Nutritional Intake per Capita (Kcal)	Monthly 2100 Kcal per Capita, Household Food Basket Cost SLE
1450	1068	382	74%	26%	1173	1890

The food basket was calculated based on the local populations' food consumption habits with adjustments for ensuring a 2100 Kcal daily dietary intake value per person per day and 12 percent of the daily energy intake sourced from protein in accordance with SPHERE standards.

Food Category	Food Item	Kcal per 100gr	2100 Kcal Per Capita Daily Consumption (gr)	Daily Cost Per Person (SLE)
Cereals	Rice	360	290	4.2
Tubers	Cassava	160	155	0.7
Pulses	Black Eye Beans	113	23	0.5
Vegetables	Cassava leaves	37	158	0.8
Oils Fats	Palm oil	884	71	1.9
AnimPro	Fish	321	21	2.2
Dairy	Milk	63	8	0.1
Sugar	Sugar	400	7	0.1

¹¹ It should be noted that national MEB is a multi-sectorial indicator which requires participation and agreement of wider food security and cash assistance working group stakeholders. The contents and the results of the MEB calculations presented in this report are subject to change upon presenting the findings to local and international stakeholders for review and suggestions.

¹² WFP Minimum Expenditure Baskets Guidance Note

The food basket was calculated based on the local populations’ food consumption habits with adjustments for ensuring a 2100 Kcal daily dietary intake value per person per day and 12 percent of the daily energy intake sourced from protein in accordance with SPHERE standards¹³.

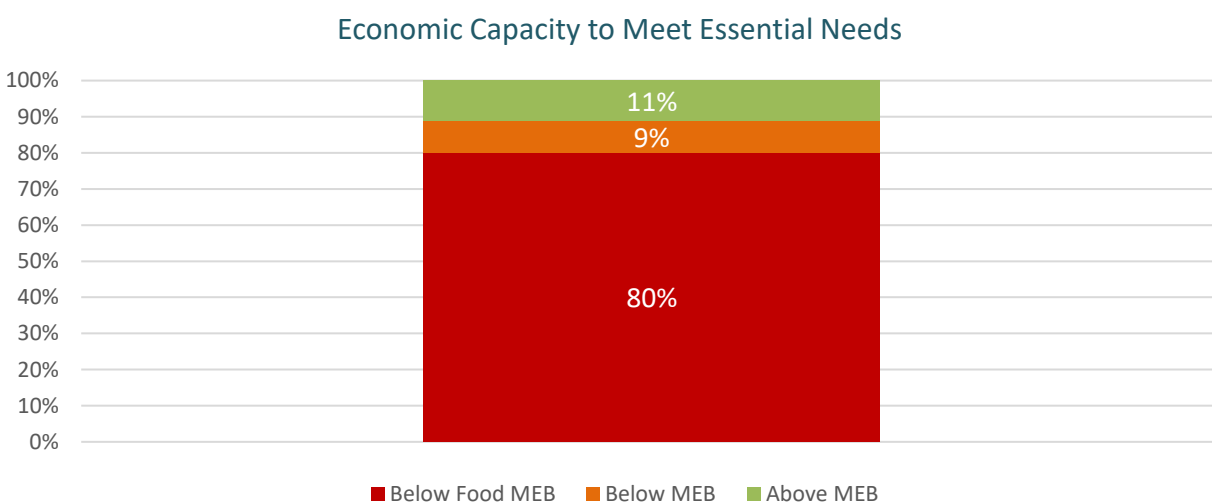
	SLE
Minimum Expenditure Basket Cost (Household Size; 6 Persons)	3300
Food Expenditure Cost	2442
Non Food Items Expenditure (<i>proxy figure based on actual NFI expenditures</i>)	858
Monthly Per Capita MEB Cost	550
Monthly Per Capita Food Basket Cost	407

¹³ SPHERE Standards Handbook.

Economic Capacity to Meet Essential Needs (ECMEN)

The economic capacity to meet essential needs (ECMEN) is a measure of the economic vulnerability of a population. It is defined as the percentage of households whose economic capacity is sufficient to meet their essential needs, as measured through the minimum expenditure basket (MEB). Households are considered to have the economic capacity to meet their essential needs if their consumption expenditures exceed the minimum expenditure basket (MEB)¹⁴.

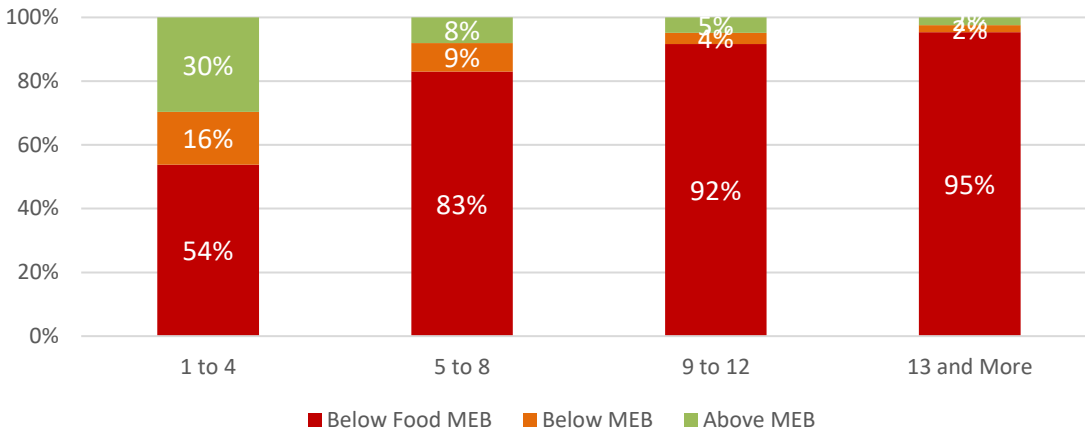
Based on the values of the MEB and its subcomponent Food Basket survey participant households' capacity for meeting their essential needs against their current expenditure levels was calculated and examined via different dimensions for providing insights and highlighting the characteristics of vulnerable households. The results showed that 80 percent of Sierra Leonean households cannot afford a 2100 Kcal diet based on the limits of their current expenditure budgets. Furthermore, 89 percent cannot meet their essential needs.



When the findings are cross tabulated for households' size groups a negative correlation becomes clear where the larger households fare worse. 70 percent of the households comprised of up to 4 members cannot meet their essential needs, which is 29 percentage points lower than the national average, whereas 96 and 97 percent of households comprised of 8 to 12 and 13 and more members cannot meet their essential needs.

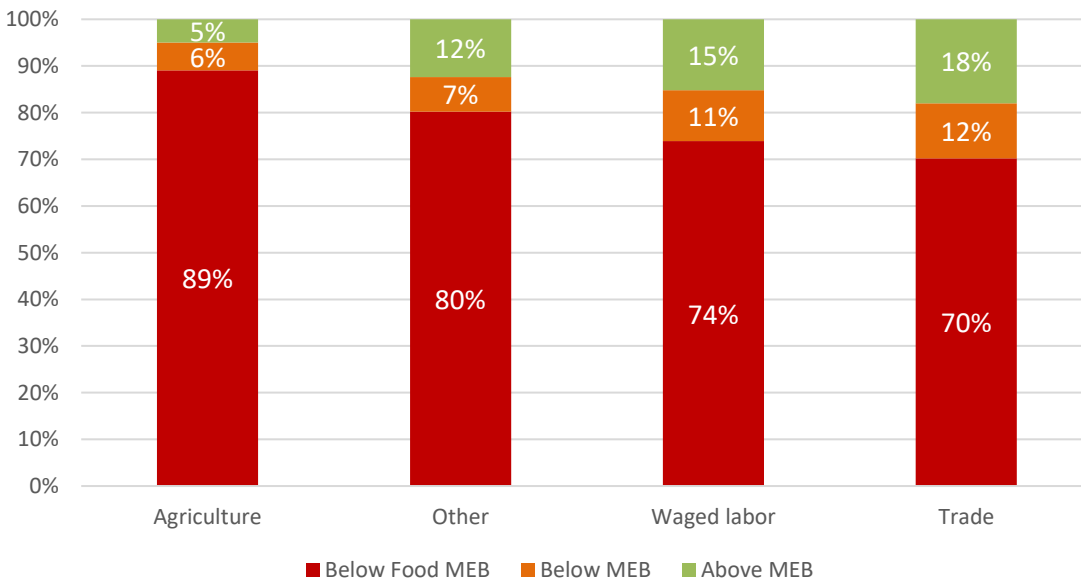
¹⁴ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

ECMEN by Household Size



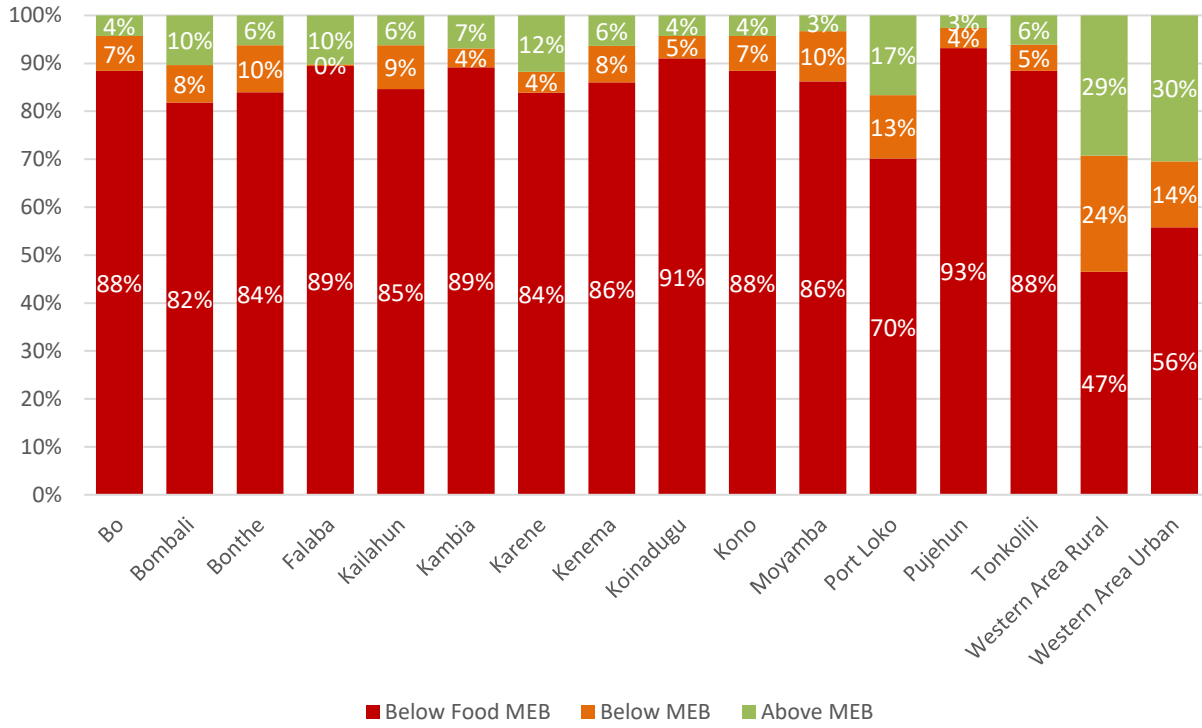
For the different types of income groups results showed that similar to other indicators 85 percent of those who rely on agriculture for their livelihoods cannot meet their essential needs, the highest amongst the category while 82 percent of households who earn their income through trading was unable to meet their essential needs.

ECMEN by Household Main Income Source



Furthermore, when the results were disaggregated by districts, Pujehun had the highest share of its population who cannot meet their essential needs at 97 percent and on the other end Western Area districts had share of their populations who cannot meet their essential needs below the national average with 71 and 70 percent for Rural and Urban areas respectively.

ECMEN by Districts



Consolidated Approach for Reporting Indicators of Food Security

The Consolidated Approach for Reporting Indicators of Food Security (CARI) is a methodology that is used to aggregate different food security indicators into one index to report on a population's overall food security status. The CARI assesses availability and access to food through measuring the status of household consumption, the ability of a household to stabilize consumption over time by measuring the Coping Capacity through economic vulnerability and livelihood coping strategies¹⁵. 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 the February FSMS survey.

The console classifies food insecurity into 4 categories i.e.

1) Food secure, 2) Marginally Food Secure, 3) Moderately Food Insecure, and 4) Severely Food Insecure as illustrated in table 2: For the CARI analysis the following indicators were collected and used:

- i. Food consumption score,
- ii. reduced Coping Strategy Index (rCSI)
- iii. Food expenditure share and
- iv. Livelihood coping

The food security analysis was done using the revised CARI guidelines and the most noticeable updates applied during this analysis are 1. Addition of reduced Coping Strategies Index (rCSI) to the Food Consumption Score in the Current Status domain in the CARI console; 2. Updated standard household expenditure module, to measure Food Expenditure Share (FES) and Economic Capacity to Meet Essential Needs (ECMEN); 3. Introduction of methodology to calculate Livelihood Coping Strategies.

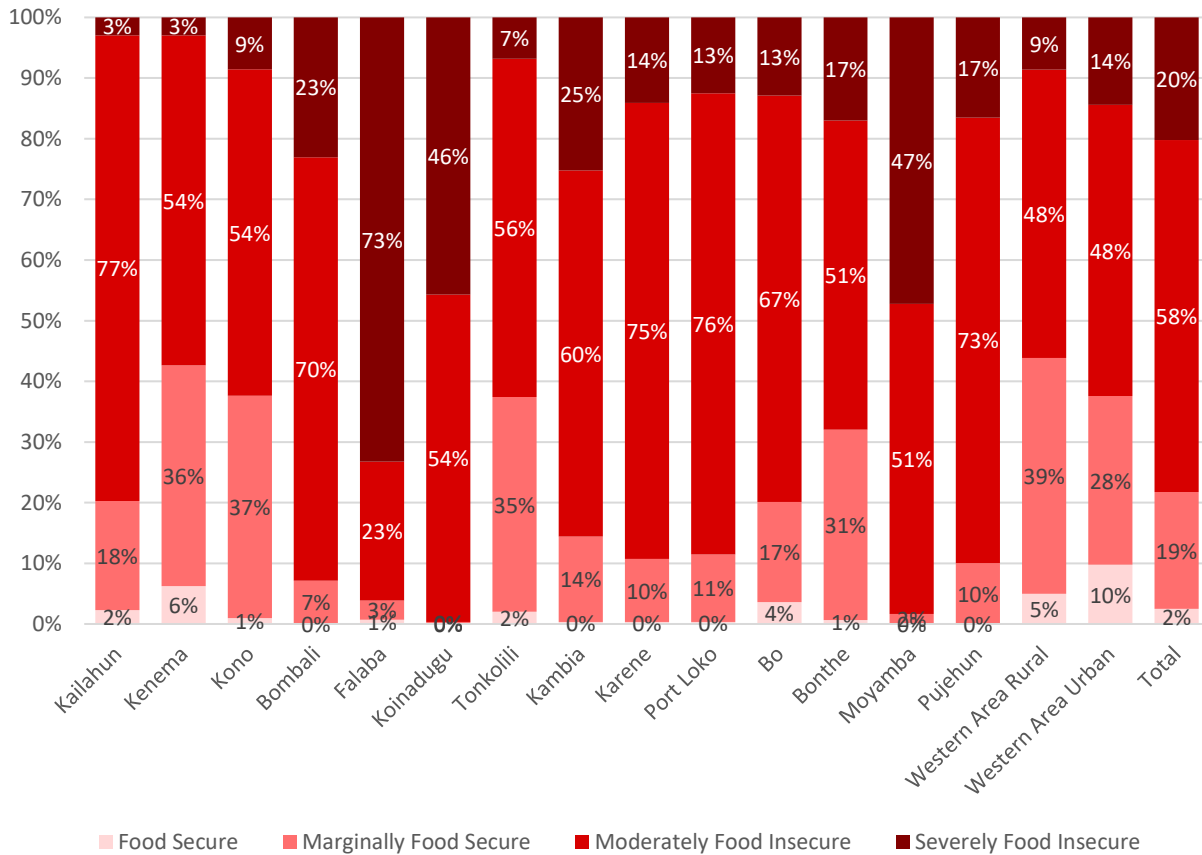
Food Security (LCS-FS) from the Livelihood Coping Strategies module used for Essential Needs (LCS-EN). And lastly 4. Inclusion of updated livelihood coping strategies in the LCS-FS module and aligning the LCS-EN module accordingly. One major implication that has been noted is the increase of marginally food secure households 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.

This current analysis will be used a reference point to the methodology used and according to the current results (FSMS February 2023), 78 percent of Sierra Leone's population is food insecure. Among the food insecure, 20 percent of households are severely food insecure, and 58 percent are moderately food insecure.

The findings of the survey shows that about one in five, 20 percent, of the households are severely food insecure with the highest proportion reported in Falaba with 73 percent, Moyamba with 47 percent and Koinadugu with 46 percent. These are some of the areas that reported higher proportion of households consuming poor diets and resorting to emergency coping strategies. About 58 percent of the households were classified to be moderately food insecure and have difficulties to meet their minimum dietary requirements. All the districts reported a high proportion of households who were moderately food insecure of above 50 percent except for Western rural (48 percent) and Western urban (48 percent).

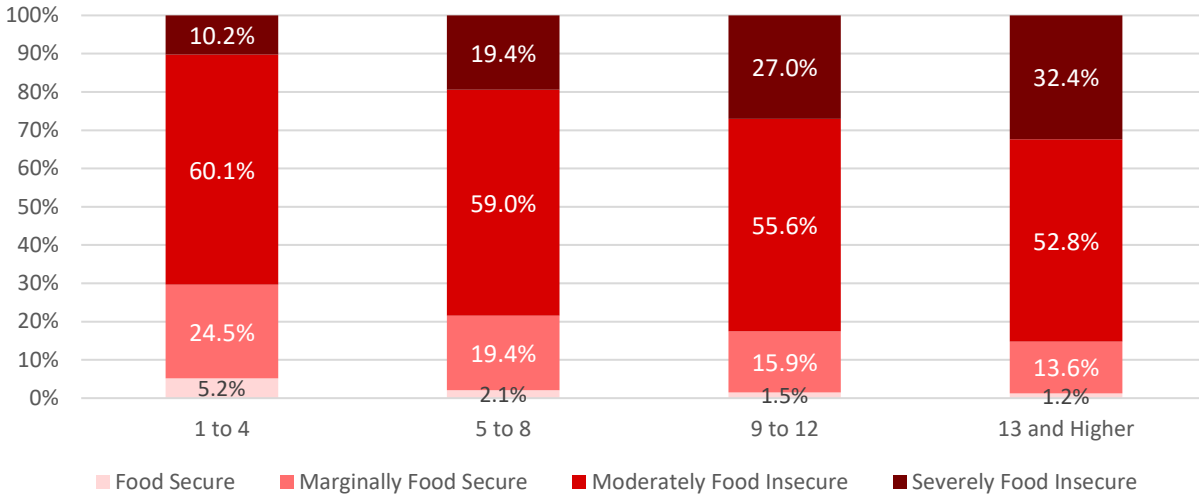
¹⁵ Technical guidance for the Consolidated Approach for Reporting Indicators of Food Security.

Food Security Classification by districts



The results also showed that households with large family size are more prone to severe food insecurity, out of the 20 percent severe food insecure households, households with more than 13 members accounts for 32.4 percent of severe food insecurity, households' size within 9 to 12 accounts for 27 percent severe food insecurity whilst household within 1 to 4 members account for only 10 percent of severe food insecurity indicating the size of the households has a direct effect of the overall food insecurity and food security level of the households. Gender desegregation had a minimal effect on the food security level of the households, although the overall results shows that household headed by men are slightly more prone to food insecurity with 20,5 percent as compared to female headed households with 19,2 percent.

CARI Food Security Classification by Household Size



However, physical, and mental impairment within the household had a direct negative impact on the food security status of households. The result shows that household with physical or mental impairment person(s) accounted for more severely food insecure persons with 23 percent compared to household without physical or mental disability with 20 percent and among the food secure, households with no physical or mental impairment recorded the highest with 2.6 percent as compared to the physical or mental impairment households with 1.6 percent.

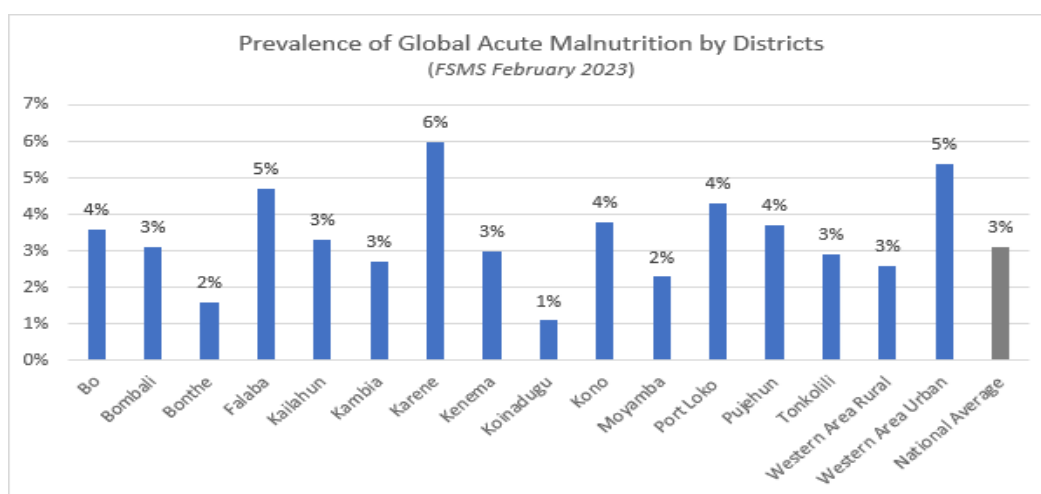
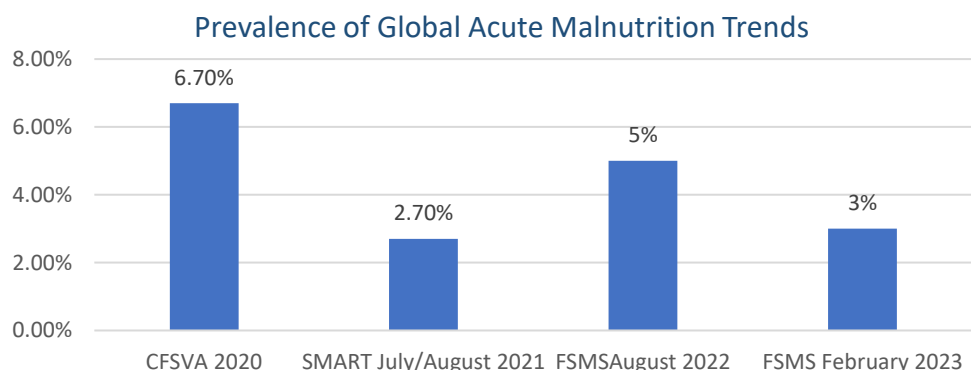
	Domain	Indicator	Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
Current Status	Food Consumption	<i>Food Consumption Groups and rCSI</i>	Acceptable	Acceptable and rCSI >=4	Borderline	Poor
			13%	16%	51%	20%
Coping Capacity	Economic Vulnerability	<i>Food Expenditure Share</i>	<50%	50% - <65%	65% - <75%	≥75%
	Livelihood Coping Strategies	<i>Livelihood Coping Strategies – Food Security</i>	None	Stress	Crisis	Emergency
			9%	12%	18%	61%
			26%	30%	21%	23%
CARI			2%	19%	58%	20%

Global Acute Malnutrition

In addition to food security indicators, field teams collected Global Acute Malnutrition (GAM) data through Middle Upper Arm Circumference measurements (MUAC) from children aged between 6 months and 59 months¹⁶. The measurements were supervised by trained enumerators from the Ministry of Health and Sanitation’s Food and Nutrition Directorate. These measurements are used to determine the impact of nutritional deficiencies in children’s diets which hinders their physical development and growth.

The result of the analysis showed some improvement when compared with the data collected in the 2022 August FSMS, the GAM rates decreased from 5 percent to 3.1 percent in February 2023, which can be attributed to seasonality, considering the post-harvest season which is also the dry season with less waterborne diseases. However, the trend analysis from the previous SMART survey shows a slight deterioration of the GAM rate from 2.7percent in July 2021 to 3.1 percent in February 2023.

The result also shows an improvement when compared to the CFSVA 2020 from 6.7 percent in December 2020 to 3.1 percent in February 2023 this is because of the COVID-19 pandemic that had a negative impact on child wellbeing in 2020. See trend results of GAM in figure 12.1. Overall, Karene (6 percent), Falaba (5 percent) and Western Area Urban districts (5 percent) recorded the highest GAM rates across the country.



¹⁶ UNHCR Emergency Handbook; Acute malnutrition threshold.

Recommendations

Considering the level of food insecurity levels due to lack of access to nutritious food because of the numerous economic vulnerabilities such as high food prices, high food inflation and the continuous depreciation of the local currency coupled with the root causes, low productivity of rural households involved in agriculture and the poor agricultural practices will further exacerbate the situation if the following recommendations are and not addressed:

- Expand shock responsive social protection programmes and revise transfer values to be in line with current costs of Minimum Essential Needs.
- Provide emergency assistance to most vulnerable households to support food and nutritional intake.
- Increase investment in agriculture, directed at small holder level, by providing credit facility in the form of farming inputs such as improved seeds, chemical fertilisers, and improved farm tools.
- Expand soil and water conservation farming techniques; soil testing; market linkages of smallholder farmers to improve access to improved seeds and organic fertilizer
- Emphasis on climate smart agriculture and encouraged smallholder farmers to embark on perennial farming and diversify crops.
- Increased investment in reducing post-harvest losses and affordable value-added agricultural technics.



**World Food
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