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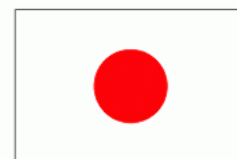
SIERRA LEONE FOOD SECURITY MONITORING SYSTEM REPORT



World Food
Programme



Government of Sierra Leone



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CONTENTS

ACKNOWLEDGEMENT	i
TABLE OF CONTENT	ii
ACRONYMS	iii
LIST OF TABLES AND FIGURES	iv
HIGHLIGHTS	5
1. BACKGROUND	6
2. METHODOLOGY	6
3. HOUSEHOLD DEMOGRAPHICS	6
4. CLIMATIC AND WEATHER CONDITIONS	7
4.1 Findings of the Erratic Rainfall Assessment	7
5. MARKET ANALYSIS AND PRICE INFLATION	9
6. FOOD CONSUMPTION SCORE	10
6.1 Findings of Food Consumption Score at National	10
6.2 Findings of Food Consumption Score at District level	12
7. FINDINGS ON HOUSEHOLD FOOD EXPENDITURES AT DISTRICT LEVEL	12
8. HOUSEHOLD COPING STRATEGY	14
9. CONSUMPTION BASED COPING STRATEGIES	14
9.1 National level findings	14
9.2 District level findings	15
10. LIVELIHOOD-BASED COPING STRATEGIES	16
10.1 Livelihood findings at National level	17
10.2 Livelihood findings at District level	17
11. FOOD AND NUTRITION SECURITY AT NATIONAL AND DISTRICTS LEVELS	18
12. STATUS OF FOOD SECURITY IN SIERRA LEONE 2018	19
12.1 Food Security findings at National level	20
12.2 Food Security at District level	20
13. KEY RECOMMENDATIONS TO IMPROVE FOOD SECURITY	25
14. BEST PRACTICES AND LESSONS LEARNT FSMS 2018	25
15. COMMON TERMS AND DEFINITIONS IN FOOD SECURITY	26

ACRONYMS/ABBREVIATIONS

CFSVA	Comprehensive Food Security and Vulnerability Analysis
CARI	Consolidated Approach for Reporting Indicators
CSI	Coping Strategy Index
EVD	Ebola Virus Disease
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
FSMS	Food Security Monitoring System
FSI	Food Security Index
FFA	Food for Assets
FFW	Food for Work
IVS	Inland Valley Swamps
IGA	Income-Generating Activities
MUAC	Mid Upper Arm Circumference
MICS	Multiple Indicators Clusters Surveys
MAF	Ministry of Agriculture and Forestry
rCSI	Reduced Copping Strategy Index
TSFP	Targeted Supplementary Feeding Programmes
WFP	World Food Programme
WHO	World Health Organization

PHOTO CREDITS

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Photo page 16: WFP/Filippo Pongelli

Photo page 18: WFP/Filippo Pongelli

Photo page 19: WFP/Evelyn Fey

LIST OF FIGURES

Figure 1. Chiefdoms that took part in the 2018 FSMS.....	6
Figure 2. Comparison between date of start of the season for 2018 and the long-term average	8
Figure 3. Maximum length of dry spells: July – September 2018.....	8
Figure 4 Prices of key staples in 2017 and 2018	9
Figure 5. Comparative prices of fish and meat Sep 17 vs Sep 18.....	9
Figure 6. Household food consumption, 2015 CFSVA.....	11
Figure 7. Households Food Consumption Score by districts, 2018.....	11
Figure 8. Proportion of household expenditure on food by district, 2015	13
Figure 9. Proportion of household expenditure on food by district, 2018	13
Figure 10. Reduced Coping Strategy Index by districts, 2018	15
Figure 11. Livelihood Coping Strategy by district, 2018 FSMS.....	17
Figure 12. GAM rate 2018 by district	18
Figure 13. Food security 2018 by district	20
Figure 14. Comparing levels of food security, FSMS 2018 to CFSVA 2015.....	21
Fig 15. Food security 2018 map by districts.....	22
Figure 16. Food Security by districts, FSMS 2018 and CFSVA 2015	24

LIST OF TABLES

Table 1. Sierra Leone FCS profile and status in 2018	10
Table 2. Categories of coping strategies	16
Table 3. Household coping strategies within last 30 days	16
Table 4. Consolidated approach for reporting indicators of food security (CARI)	19
Table 5. CARI console for Sierra Leone, 2018 FSMS	20



HIGHLIGHTS

Overall, the food security situation in Sierra Leone has improved since September 2015, with the proportion of the food insecure population decreasing from 49.8 percent to 43.7 percent. Demographically, around 3.2 million Sierra Leoneans are currently estimated to be food insecure in 2018.

Similarly, at the national level, the proportion of severely food insecure households decreased from 8.6 percent in 2015 to 2.4 percent in 2018; representing 170, 210 Sierra Leoneans that are severely food insecure.

District wise, comparing 2015 CFVSA and FSMS 2018 food security situation, the analysis revealed the following decrease (moderate and severe food insecurity): Port Loko from 61.4 to 31 percent, Moyamba from 52 to 27 percent, and Western Area Rural from 41.5 to 26 percent.

However, the deterioration of food security was recorded in the following districts: Koinadugu (52 percent to 62 percent), Bonthe (53 percent to 58 percent) and Bo (37 percent to 46 percent) whilst Tonkolili district remained high at the same level (62 percent). Around 18 percent of total households were found to have poor food consumption scores whereby the consumption of a diversified diet to live a healthy life was

inadequate. In addition, almost half (45.7 percent) of the total population recorded a borderline food consumption score highlighting high levels of vulnerability amongst the population in the event of a shock.

Twenty-four percent of households revealed consuming less than three food groups within a given week, implying consumption of an inadequately nutritious diet with implications for health, educational attainment and wellbeing.

Around 35 percent of households resorted to negative coping strategies such as borrowing money or spending savings and selling of productive assets when faced with depletion of food stocks. In some cases, households resorted to more extreme, emergency coping strategies such as selling land or house to survive, potentially impacting on their mid to long-term food security status.

About 20 percent of the total households spent over three-quarters of their income on food, implying that they are “very poor” in terms of monetary wealth. Such high food expenditures on food imply extremely limited funds for other essential social expenditures, including healthcare and education.

1. BACKGROUND

In September 2018, the Ministry of Agriculture and Forestry (MAF), with the support of the World Food Programme (WFP), undertook the first round of a quarterly Food Security Monitoring System (FSMS) exercise.

The role of the FSMS is to provide up-to-date and reliable food and nutrition security data to guide responsive government policies and programmes to build food and nutritional resilience and enable the government and development partners to track changes in food and nutrition security over time.

2. METHODOLOGY

The FSMS exercise targeted all 14 of Sierra Leone's districts¹, with 18 sentinel sites identified per district and 12 randomly selected households interviewed by sentinel site. In total, the FSMS exercise interviewed 3,024 households to learn more about their food and nutrition security status.

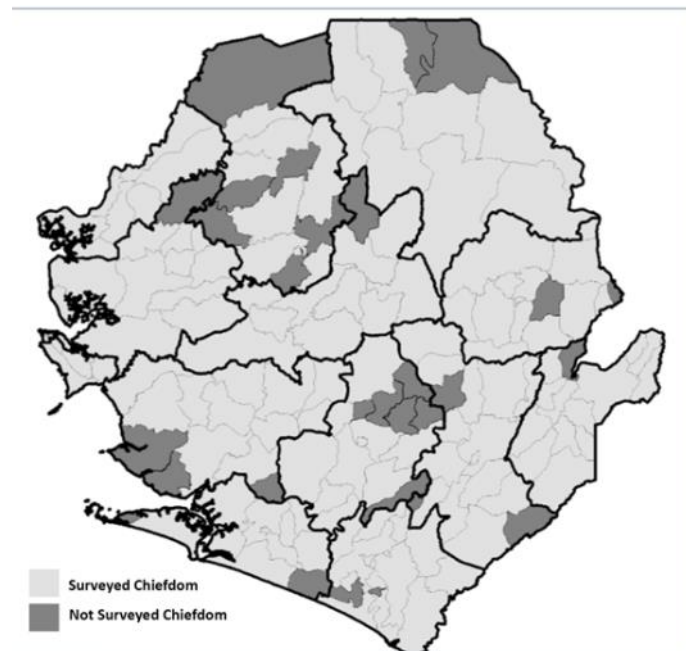
Data was collected by a team of 75 field staff, comprising of 14 supervisors from MAF, 14 nutritionists from the Food and Nutrition Directorate of the Ministry of Health and Sanitation (DFN). Their objective was to train enumerators in nutrition data collection in addition to collecting data. Other team members were 14 senior enumerators and 33 enumerators.

Distribution of sentinel sites, by chiefdom

The data collection was undertaken during the month of September, coinciding with the end of the lean season when access to and availability of food is constrained by the peak of the heavy rains and low local agricultural production levels. As the last comparable food security data collection exercise - the Comprehensive Food Security and Vulnerability Analysis (CFSVA 2015) - was also conducted in September, to an extent both datasets are readily comparable as they were collected during the same seasonal period.

However, it should be noted that the CFSVA 2015 was undertaken in the immediate aftermath of the Ebola Virus Disease (EVD) outbreak, thus during a distinctly different operational context which directly impacted on the food and nutrition security findings.

Figure 1. Chiefdoms that took part in the 2018 FSMS



3. HOUSEHOLD DEMOGRAPHICS

According to the Population and Housing Census 2015 projection report, the population of Sierra Leone is about 7,716,424; of which 3,787,568 are male and 3,928,856 are female².

According to the 2017 Multiple Indicators Cluster Survey (MICS) results; 68.7 percent of households are headed by men whilst 31.3 percent are headed by women. Around 28.7 percent of the total household heads are between the age of 18 and 34 years, 60.5 percent are between the ages of 35 and 64; while about 10.5 percent are aged 65 and above³.

¹ Based upon the previous administrative arrangement of Sierra Leone's districts

² 2015 Sierra Leone Population and Housing Census Projection Report

³ 2017 Sierra Leone Multiple Indicators Cluster Survey



4. CLIMATIC AND WEATHER CONDITIONS

Data collection was undertaken during the month of September, coinciding with the end of the lean season. It should be noted that the rainy season of 2018 was not typical in terms of rainfall pattern and intensity, with significant rainfall deficits recorded at the beginning of the rainy season (see map overleaf), particularly affecting the northwest region.

4.1 Findings of the Erratic Rainfall Assessment

- MAF and Food Security Working Group partners undertook a rapid assessment in July 2018 to assess the impact of erratic rainfall patterns on agricultural production, which was triangulated in the FSMS through data collected from the Agricultural Business Centers (ABCs) and farmer-based organizations (FBOs).
- The assessment found that food crop farmers across the five sampled districts (Kambia, Koinadugu, Tonkolili, Moyamba and Kailahun) were heavily affected by the unseasonal rainfall patterns.
- The proportion of affected households affected grow rice 67.8 percent, groundnuts 63.3 percent, cassava 37.7 percent, vegetables 25.1 percent, maize 18.6 percent and sweet potatoes 16.1 percent.
- The prevalence of erratic rainfall was cited most commonly as the leading cause for poor crop germination and or seedling development of the affected crops.
- Around 51.1 percent of the total 67.8 percent affected households lost over half of their rice seedlings across the districts due to the erratic rainfall.
- Across the districts, farmers reported over half of their cassava stems were lost. However, the highest reported losses were among groundnut farmers, whereby out of the total 63.3 percent groundnuts-affected households. Among the affected groundnut farmers, 60.3 percent of them lost half or more of their seedlings.
- Considering that groundnut is a crop predominantly cultivated by women, it is anticipated that high seedling losses will reduce incomes during next year's lean season, with anticipated knock-on effects in terms of food security.
- Unseasonal rains were also found to have an impact on livestock farmers, with some reporting disease outbreaks, resulting in livestock mortality and morbidity.

Figure 2. Comparison between date of start of the season for 2018 and the long-term average

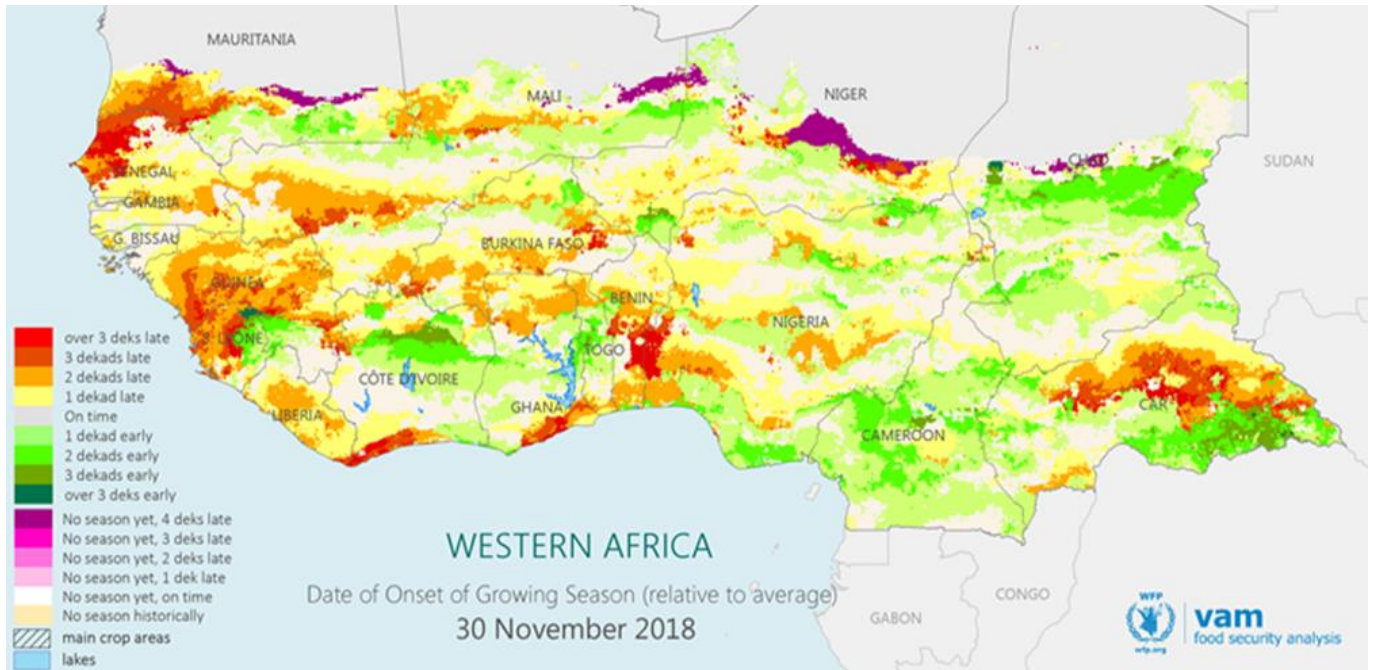
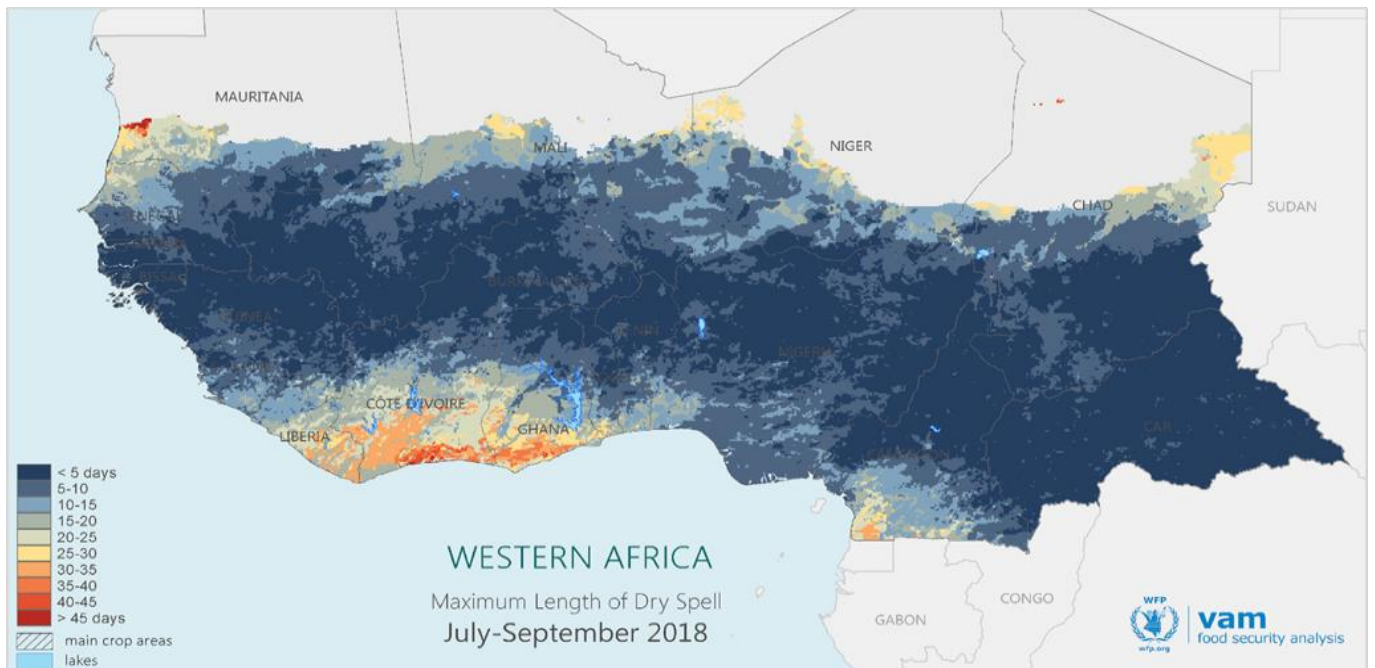


Figure 3. Maximum length of dry spells: July – September 2018



5. MARKET ANALYSIS AND PRICE INFLATION

The following findings were analyzed from figure 2 below:

- Price of one kilogram of imported rice was SLL 4,744 in 2017 which slightly increased by 3 percent (SLL 4,877) in one year (between September 2017 and September 2018);
- Price of one kilogram of locally produced rice increased by 10 percent from SLL 5,011 in September 2017 to SLL 5,511 in September 2018;
- In contrast to rice, the price of cassava almost doubled, from SLL 1,400 in September 2017 to over SLL 2,500 in September 2018. This was due to high demand and affordability to purchase cassava than rice;
- Price of one kilogram of bonga fish increased by approximately 25 percent, from SLL 20,000 in 2017 to SLL 24,500 in 2018;
- Similarly, the price of one kilogram of meat increased by 20 percent, from SLL 31,000 in September 2017 to SLL 37,000 in September 2018;
- According to the September 2018 CPI press release by Statistics Sierra Leone, food and non-alcoholic beverages inflation slightly increase from 19.62 in August to 20.41 percent in September 2018. The inflation rate increased by 0.79 percentage point year-on-year.

Figure 4. Prices of key staples in 2017 and 2018

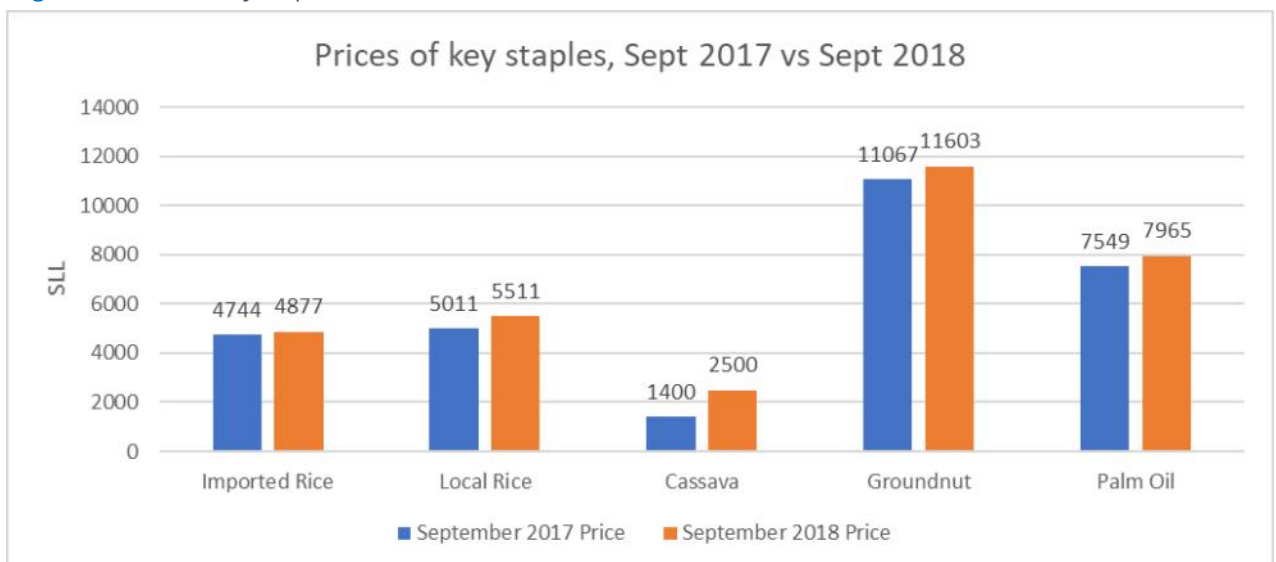
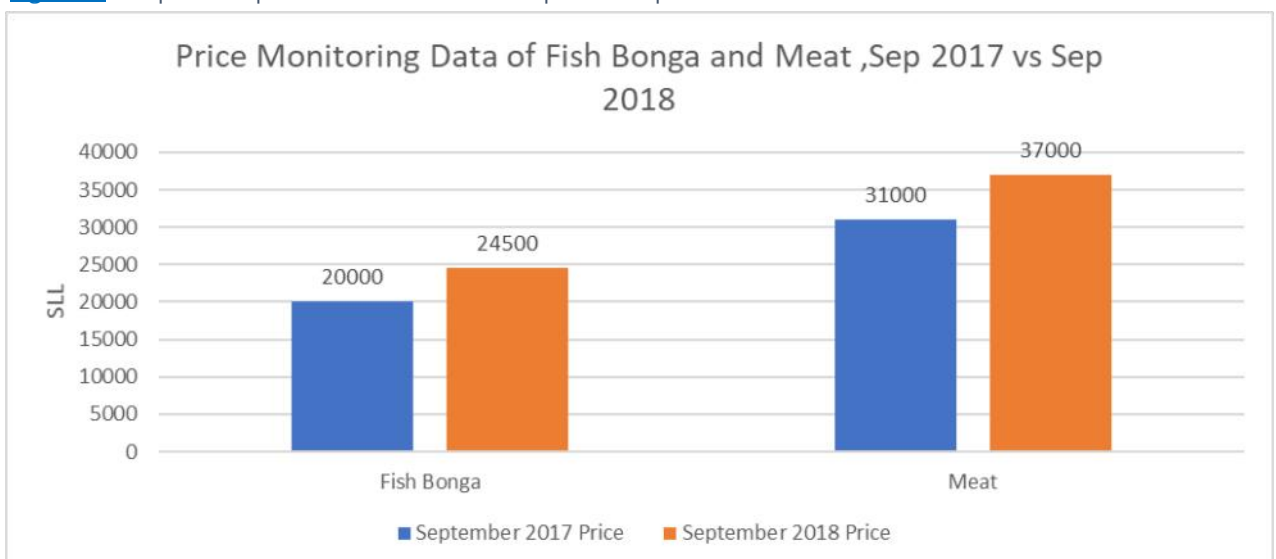


Figure 5. Comparative prices of fish and meat Sep 17 vs Sep 18





6. FOOD CONSUMPTION SCORE

Sierra Leone food consumption score threshold.

Table 1. Sierra Leone FCS profile and status in 2018

Households by FCS category	FCS Threshold	FCS 2015 CFSVA	FCS 2018 FSMS
Poor	0 -21	19.9	18.1
Borderline	21-35	33.5	45.7
Acceptable	>35	46.5	36.2

6.1. Findings of Food Consumption Score at National Level

- An average of 18 percent of households have poor food consumption, showing a slight improvement from 19.9 percent in 2015.
- Almost half of total households (45.7 percent) in 2018 were found to have borderline food consumption, indicating a 12 percent increase from 33.5 percent in 2015. Such prevalence in the borderline FCG category is concerning, as this category is particularly vulnerable to further deterioration in the event of a shock.
- The proportion of households categorized as having “acceptable” FCS reduced from 46.5 percent in 2015 to 36.2 percent in 2018 attributed to reduction in intake of protein. This was due to increase in prices of protein rich food such as meat, fish, etc., which affected almost all the three socio-economic categories. As a result, around 10 percent of the acceptable category households, relapsed to borderline group.

Figure 6. Household food consumption, 2015 CFSVA

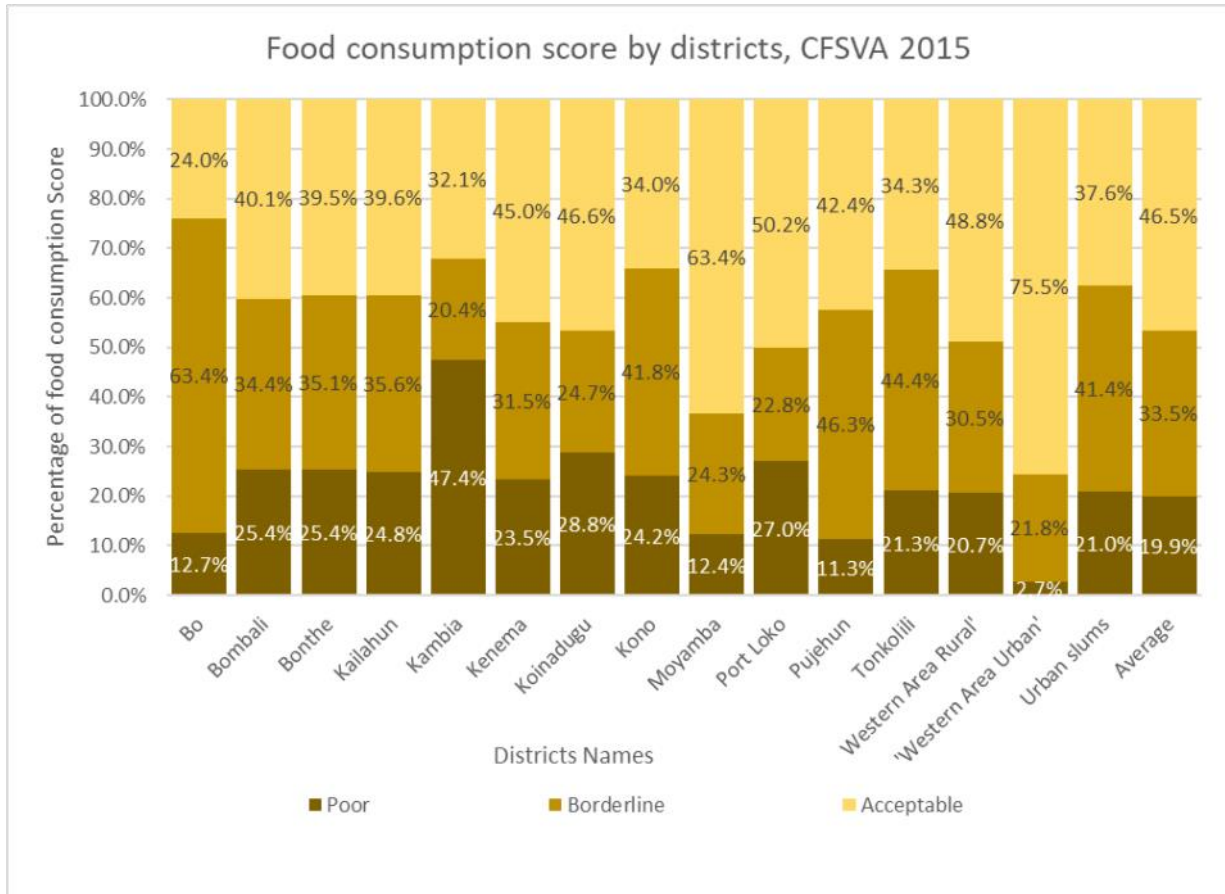
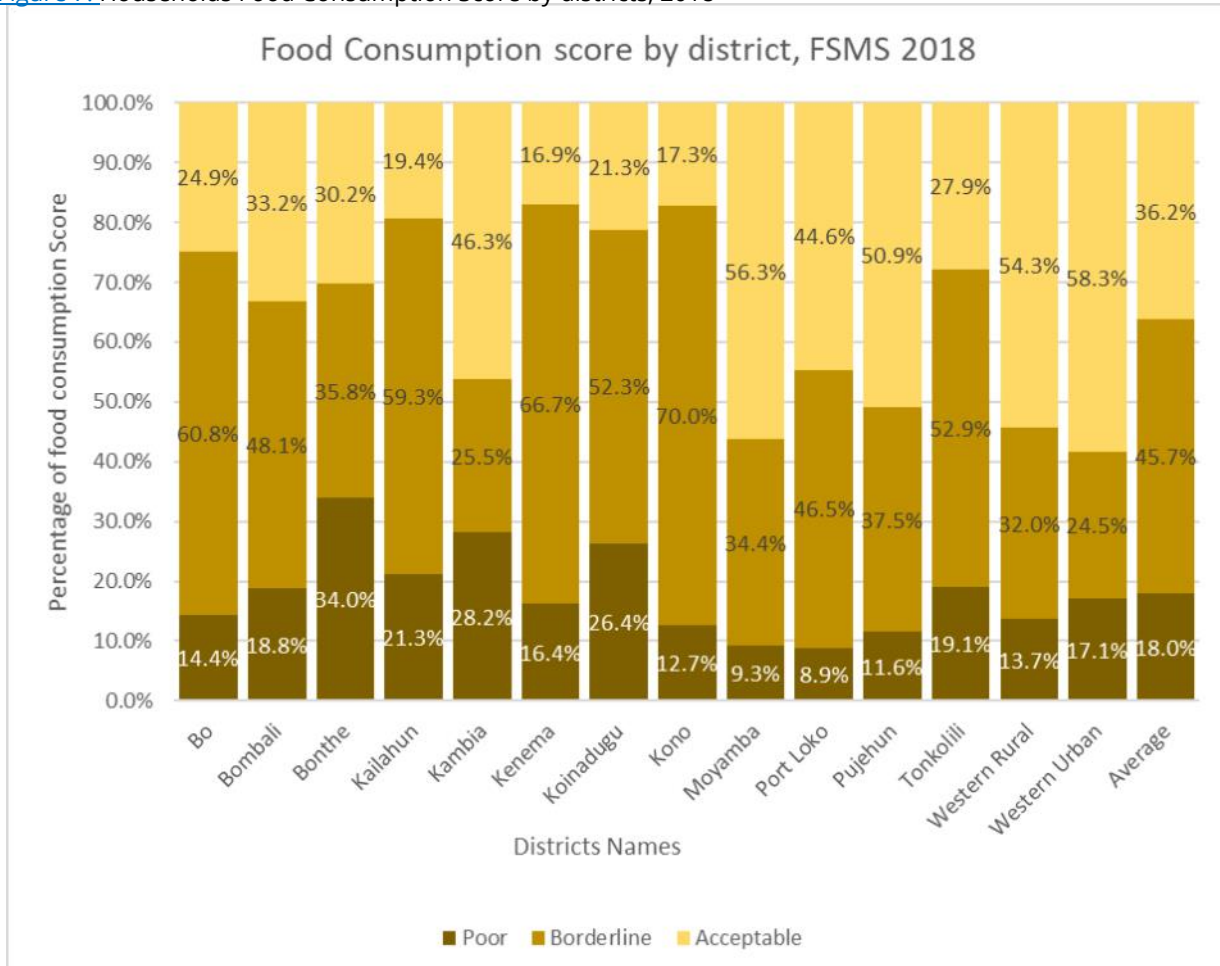


Figure 7. Households Food Consumption Score by districts, 2018



6.2. Findings of Food Consumption Score at District Level

- At district level, the highest proportion of households with poor FCS were found in Bonthe (34.0 percent), Kambia (28.2 percent) and Koinadugu (26.4 percent). The proportion of households in the poor FCS increased in Bonthe and Koinadugu when compared to 2015 data (from 27.0 to 34 percent and from 23.5 to 26.4 percent respectively).
- Considering households living in 2018 borderline FCS group; Kono district recorded the highest (70 percent) followed by Kenema (66.7 percent) and Bo (60.8 percent). There was an increase of 35 percent, 32.3 percent and 36.5 percent respectively from CFVSA 2015. This means that in an event of shock, the borderline households are likely to move to the “poor” FCS.
- In Port Loko, the proportion of households classified as having “poor” FCS dramatically reduced, from 28.8 percent in 2015 to 8.1 percent in 2018.
- Similarly, in Pujehun the proportion of households with “poor” FCS reduced from 21.3 percent in 2015 to 11.6 percent in 2018.
- Conversely, in Koinadugu district, the proportion of households with “acceptable” FCS greatly reduced from 45.0 percent in 2015 to 21.3 percent in 2018; whilst those considered as having “borderline” FCS significantly increased from 31.5 percent in 2015 to 52.3 percent in 2018.
- Similarly, in Bo district, the proportion of households with “acceptable” FCS reduced from 63.4 percent in 2015 to 24.9 percent in 2018; whilst those considered “borderline” increased significantly from 24.3 percent in 2015 to 60.8 percent.

It should be noted that, as the data were collected during the lean season (a time of low agricultural activity that coincides with the height of the rainy season), households may have had no choice but to eat less diversified meals as this is all that is readily available to them. Indeed, during the rains there is very limited fishing, reducing availability of this protein rich food source upon which many of Sierra Leone’s coastal communities rely. Furthermore, with less economic activities available for households to engage in during the rains, less income is available to purchase more diversified foodstuffs from the market.

7. FINDINGS ON HOUSEHOLD FOOD EXPENDITURES AT DISTRICT LEVEL

Food expenditure is another significant indicator of household food security. Due to low income, the share of food expenditure as a proportion of total expenditure is higher for poor households that are forced to choose between spending on food or on non-food items. In Sierra Leone, households spend most of their income on food at the expense of social and non-food expenditures. The lower the household’s income, the higher the percentage of expenditure on food. The share of expenditures devoted to food, categorizes households into the following four groups:

1. Very poor (those who spend more than 75 percent of their budget on food);
2. Poor (those who spend between 65 and 75 percent of their budget on food);
3. Borderline (those who spend between 50 and 65 percent of their budget on); and
4. Acceptable (those who spend less than 50 percent of their budget on food).

Figure 8. Proportion of household expenditure on food by district, 2015

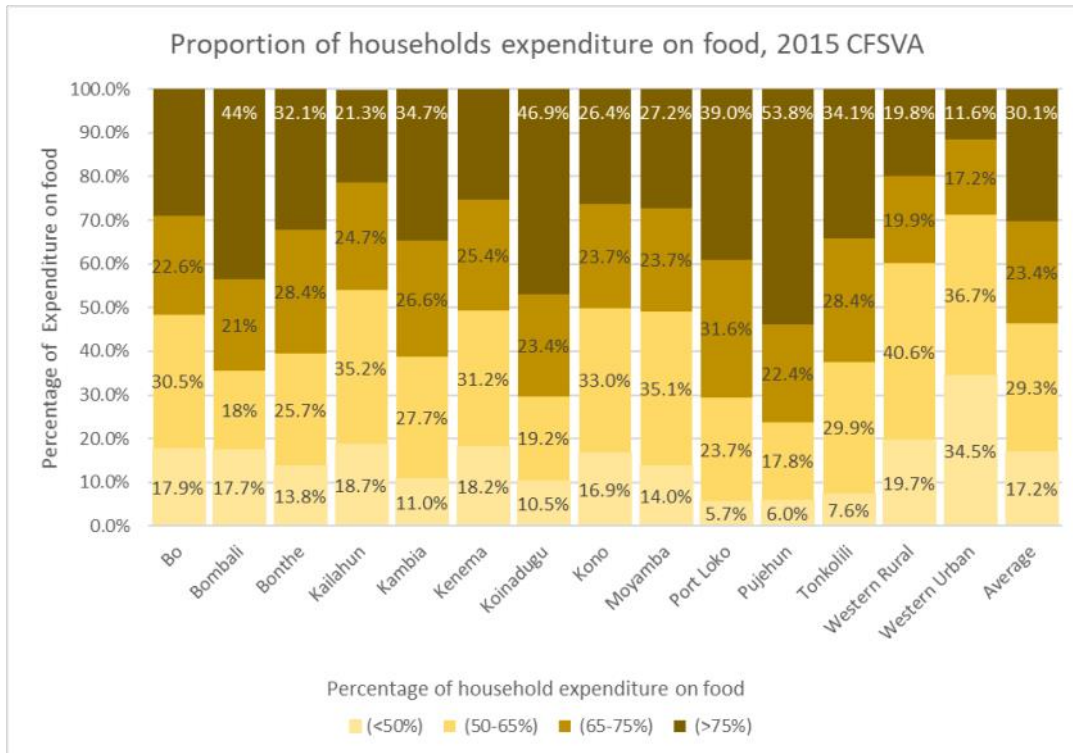
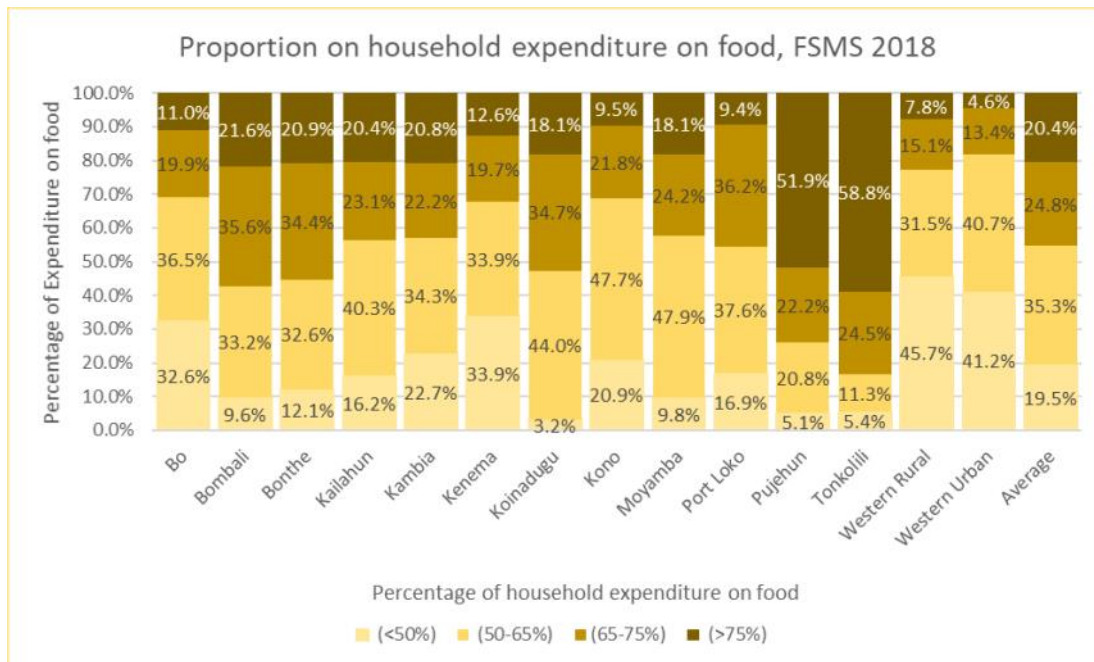


Figure 9. Proportion of household expenditure on food by district, 2018



National level findings:

- Overall, FSMS 2018 found that 45.2 percent of households spend above 65 percent of their expenditure on food, indicating the economic vulnerability and impoverishment of many households, who have only very limited income to spend on other essential social service and non-food items. This shows a marginal improvement compared to 2015, when 53.5 percent of households spent over 65 percent of their income on food.
- On average, 20.4 percent of households nationally can be categorized as “very poor” in terms of their spending on food, a significant improvement compared to 30.1 percent in 2015. This may indicate an improvement in economic conditions since the end of the EVD outbreak, when trade and movement restrictions enforced to curtail the spread of the outbreak have since been lifted and have thus created a more conducive business environment.



8. HOUSEHOLD COPING STRATEGY

When a household is under stress, it employs certain strategies to mitigate the effect of the situation. Such strategies are called coping strategies (or coping mechanisms). When shocks frequently affect a household, the number and duration of coping strategies employed increases. However, under normal conditions, most households do not rely on coping strategies to survive. Coping strategies adopted can either resort to changing family consumption of food – consumption-based coping strategies; or finding alternative means to maintain a certain food consumption – livelihood-based coping strategies.

9. CONSUMPTION BASED COPING STRATEGIES

Households that have faced a shock are often forced to reduce their family's consumption of food as a coping strategy. Consequently, they are more likely to have poor food consumption than households that have not experienced a shock. To measure the extent to which households employ these consumption-related behaviors to offset shocks for comparative purposes, the Reduced Coping Strategy Index (rCSI) is an indicator that examines five negative behaviors households adopted during the seven days prior to the survey, comprised of:

1. Consumption of less preferred and less expensive food;
2. Borrowing of food;
3. Reduction of portion size;
4. Restriction of adults' consumption in favor of children; and
5. Reduction in the number of meals per day.

There is no standard cut off point for the rCSI but the higher the score, the more frequent and severe these strategies are, therefore the higher is vulnerability of the household.

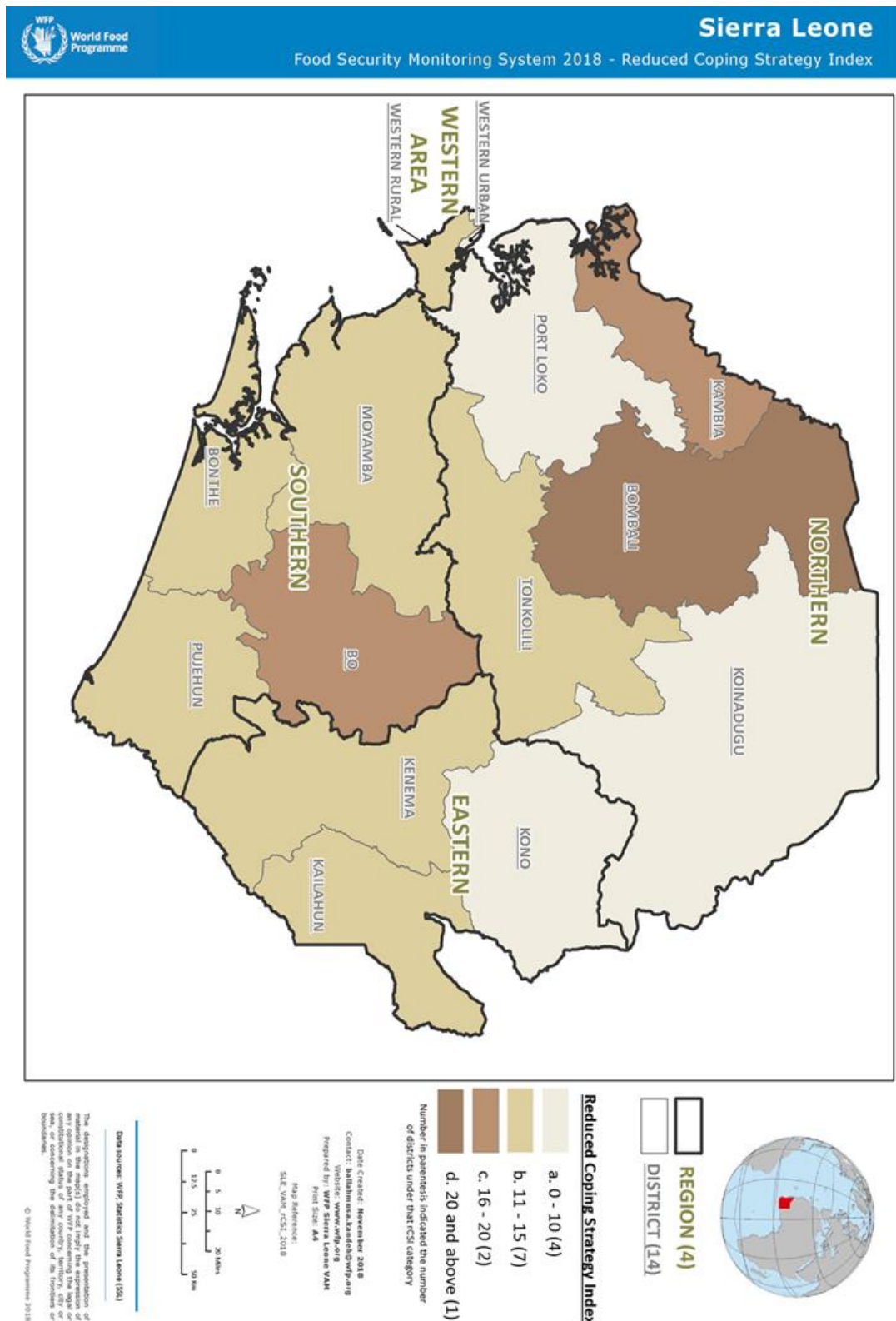
9.1. National level findings

The results of the FSMS found that the national rCSI is 12, which is almost unchanged since 2015 (11.96). This finding raises serious concerns, as it implies that households are employing consumption related coping strategies at the same extent as during the EVD outbreak, a time of high uncertainty and frequent household shocks.

9.2. District level findings

Among all the districts in the country, Bombali, Kambia and Bo recorded the highest practice of rCSI with 20, 19 and 17 indices respectively. The main reason given was that the smallholder farmers in the three districts had the highest cash advance loans from rice traders against 2017 harvest sale. Consequently, most of their 2017 harvest was spent on repaying the cash borrowed in 2017, thus left with little rice stock balances that got depleted before to 2018 harvest.

Figure 10. Reduced Coping Strategy Index by districts, 2018





10. LIVELIHOOD-BASED COPING STRATEGIES

At times when households do not have access to sufficient food, they may resort to livelihood-based coping strategies that draw upon income, expenditure and asset capacities to offset a shock. The adoption of livelihood-based coping strategies is measured to better understand longer-term households coping capacities. Understanding the behaviors that households engage in to adapt to recent crises provides insights into the difficulty of their situation, and how likely they will be to meet challenges in the future.

Livelihood-based coping strategies are divided into three different types contingent on their severity: stress, crisis or emergency, with definitions and examples of each articulated in the Table below.

Table 2. Categories of coping strategies

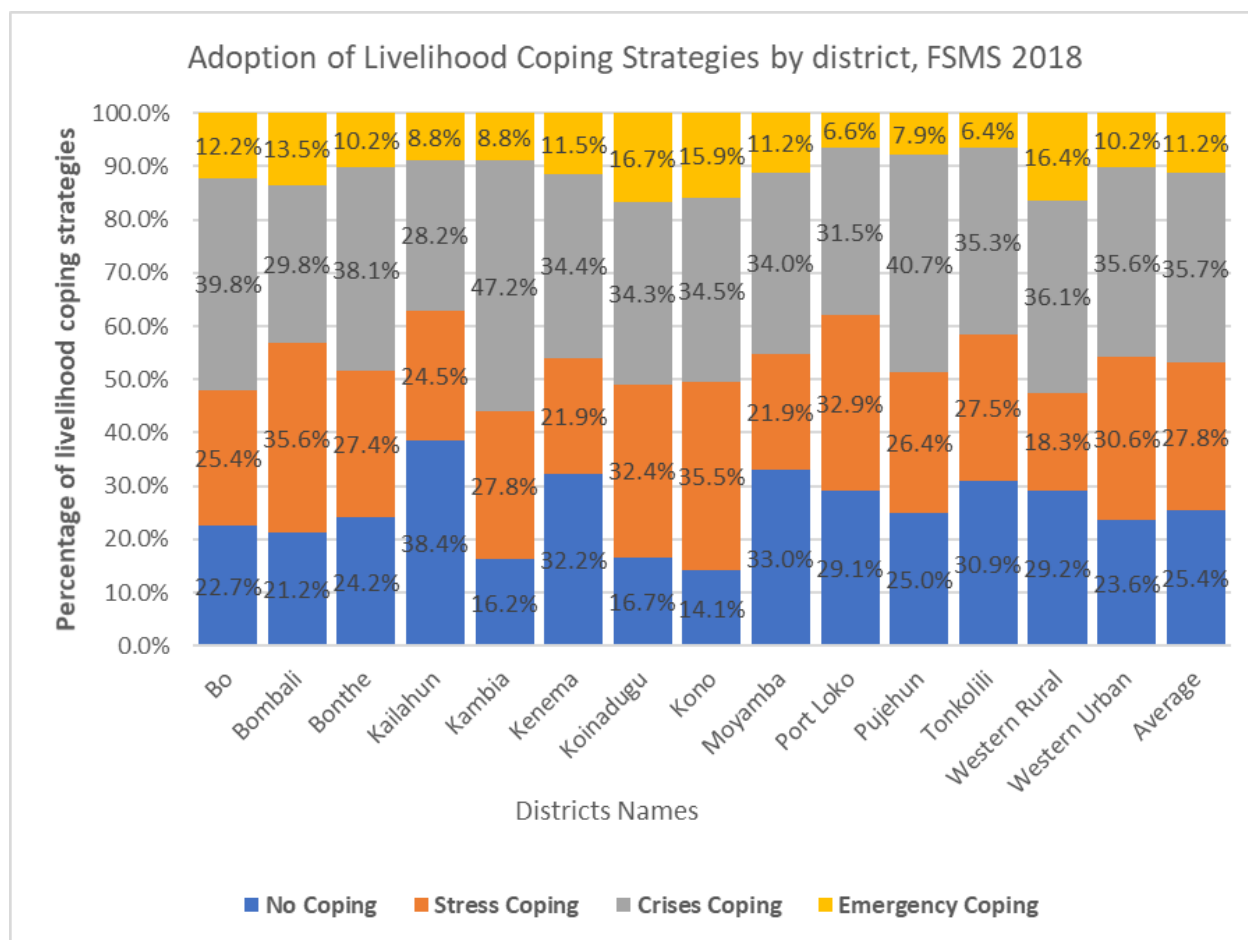
Type of Strategy	Definition	Example
Stress strategies	Reduce ability to deal with future shocks due to a current reduction in resources or increase in debt	Borrowing money or spending savings
Crisis strategies	Directly reduce future productivity, including human capital formation	Selling productive assets.
Emergency strategies	More difficult to reverse and affect future productivity	Selling one's land or house.

Households were asked whether they had adopted any of the following ten livelihood-based coping strategies within the 30 days prior to the survey, categorized by type of strategy.

Table 3. Household coping strategies within last 30 days

Stress	Crisis	Emergency
1. Sold household assets/goods	5. Sold productive assets or means of transport	8. Sold house or land
2. Purchased food on credit	6. Reduced health and educational expenditures	9. Begged
3. Spent savings	7. Withdrawn children from school	10. Sold last female animal
4. Borrowed money		

Figure 11. Livelihood Coping Strategy by district, 2018 FSMS



10.1. Livelihood Findings at National Level

Three-quarters (74.6 percent) of households reported resorting to a livelihood-based coping strategy during the one-month prior to the survey, with almost half (46.9 percent) adopting either an emergency (11.2 percent) or crisis (35.7 percent) coping strategy.

Considering that at the time prior to the survey that Sierra Leone was in a state of normalcy, the high proportion of households adopted severe coping crisis and emergency coping strategies is worrying, and it demonstrates the high frequency of shocks and widespread poverty in the country.

10.2. Livelihood Coping Strategies findings at District Level

Households in Kambia (56.0 percent) most commonly resorted to emergency or crisis coping strategies, followed by Koinadugu (51.0 percent) and Western Area Rural (52.5 percent).

The impact of the erratic rainfall may have been an aggravating factor for the adoption of these strategies in Kambia and Koinadugu district, in addition to the livestock disease outbreak. During the lean season, when household's food stocks have been depleted, smallholder farmers often depend on loans from potential buyers for their harvests. The situation was unusual this year because of the erratic rainfall, which prevented most smallholder farmers from enjoying these loan facilities, and further exacerbated their economic vulnerability. The result was many farming households were forced to adopt emergency and crises coping strategies.



11. FOOD AND NUTRITION SECURITY AT NATIONAL AND DISTRICTS LEVELS

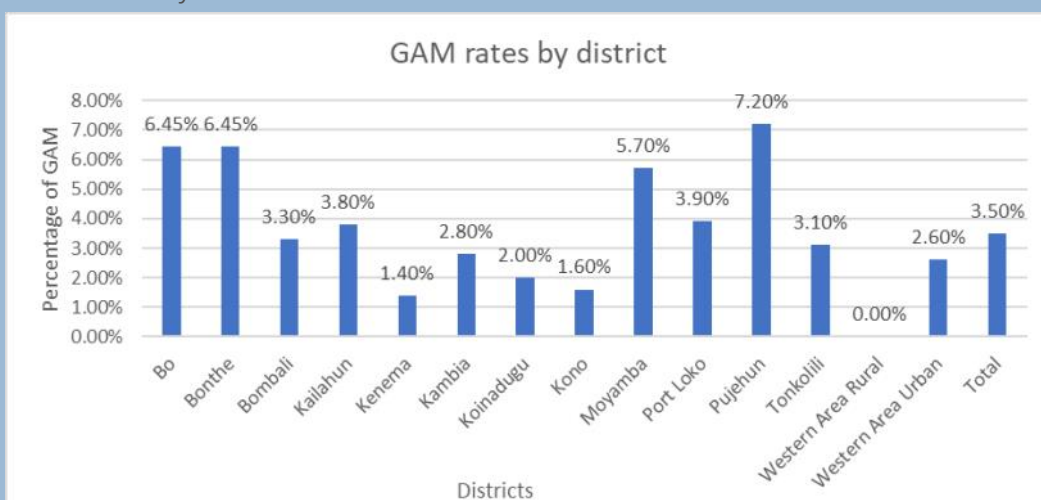
To provide an insight into the nutritional status of children under the age of five years, the assessment involved screening children by collecting the Mid Upper Arm Circumference (MUAC) measurement and test for oedema. As collecting data required specialized technical skills, the MUAC and oedema test was undertaken by technical staff from the Food and Nutrition Directorate of the Ministry of Health and Sanitation.

The data reports a national level GAM rate of 3.5 percent, which falls within the acceptable World

Health Organization (WHO) threshold of 5 percent. Furthermore, the GAM rate shows a reduction from 5.1 percent as reported by the 2017 nutrition SMART survey.

In four districts, the GAM rate is above the acceptable 5 percent threshold, including Pujehun (7.2 percent), Bo (6.45 percent), Bonthe (6.45 percent) and Moyamba (5.7 percent). In these districts, the GAM rate falls within the “poor” threshold of 5-10 percent according to WHO standards.

Figure 12. GAM rate 2018 by district





12. STATUS OF FOOD SECURITY IN SIERRA LEONE 2018

Food security is measured through the Consolidated Approach for Reporting Indicators of Food Security (CARI). This is a methodology for analyzing and reporting the level of food insecurity within a population. Considering the household's food consumption (measured through the FCS), their coping capacity (measured through the Coping Strategy Index) and their share of monthly expenses devoted to food, households are

classified into one of four food security categories. Results are presented within the CARI food security console, which gives a clear snapshot of the prevalence of food security indicators in a systematic and transparent way to establish the population's overall food security prevalence, the Food Security Index (FSI).

Table 4. Consolidated approach for reporting indicators of food security (CARI)

Food Secure	Able to meet essential food and non-food needs without engaging in irreversible coping strategies	Food Secure
Marginally food Secure	Has minimally adequate food consumption without engaging in irreversible coping strategies; unable to afford some essential non-food expenditures	
Moderately Food Insecure	Has significant food consumption gaps, OR marginally able to meet minimum food needs only with irreversible coping strategies	Food Insecure
Severely Food Insecure	Has extreme food consumption gaps, OR has extreme loss of livelihood assets will lead to food consumption gaps, or worse	

12.1 Food Security Findings at National Level

Overall food insecurity rate at national level is 43.7 percent, with 2.4 percent classified as severely food insecure. This means 3,182,300 Sierra Leoneans are living in food insecurity, whilst 170,210 are severely food insecure. This compares to an overall food insecurity level of 49.8 percent (3,530,754 people) found to be food insecure (moderately and severely) by the CFSVA 2015, of which 8.6 percent were classified as severely food insecure (608,505 people).

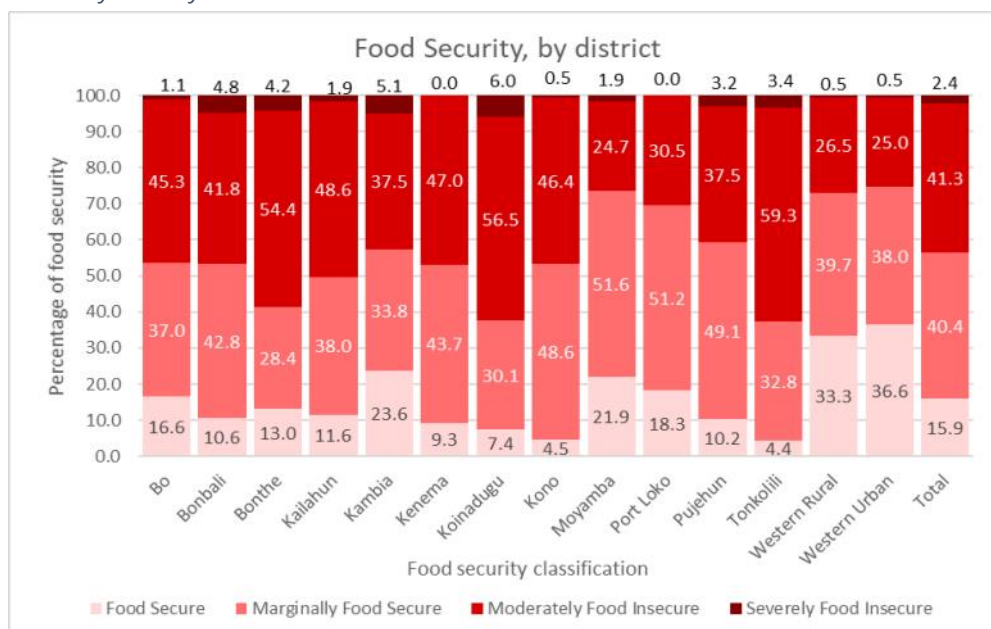
Table 5 CARI console for Sierra Leone, 2018 FSMS

Domain		Indicator	Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
Current Status	Food Consumption	Food Consumption Score	Acceptable 36.2%	N/A	Borderline 45.7%	Poor 18.1%
Coping Capacity	Economic Vulnerability	Food Expenditure Share	Share <50% 19.5%	50% - 65% 35.3%	65% - 75% 24.8%	Share > 75% 20.4%
	Asset Depletion	Livelihood Coping Strategy Categories	25.4%	Stress 27.8%	Crisis 35.7%	Emergency 11.2%
Food Security Index			15.93%	40.37%	41.32%	2.38%

12.2 Food Security Findings at District Level

- Food insecurity was found to be highest in Tonkolili and Koinadugu (62 percent), Bonthe (58 percent) and Bombali and Kenema (47 percent) districts.
- Food insecurity decreased from 35 to 25 percent in Western Area Urban (Freetown). This reduced food insecurity in Western Urban is consistent with the overall national improved food security status where 10 out of 14 districts, showed an improved food security in 2018 as compared to food security status in 2015.
- The food security situation improved in Port Loko (31 percent), Moyamba (27 percent) and Western Area Rural (26 percent) districts.
- Pujehun (41 percent) and Kailahun (51 percent) districts also recorded reductions in food insecurity, albeit from very high levels in the immediate aftermath of the EVD outbreak.

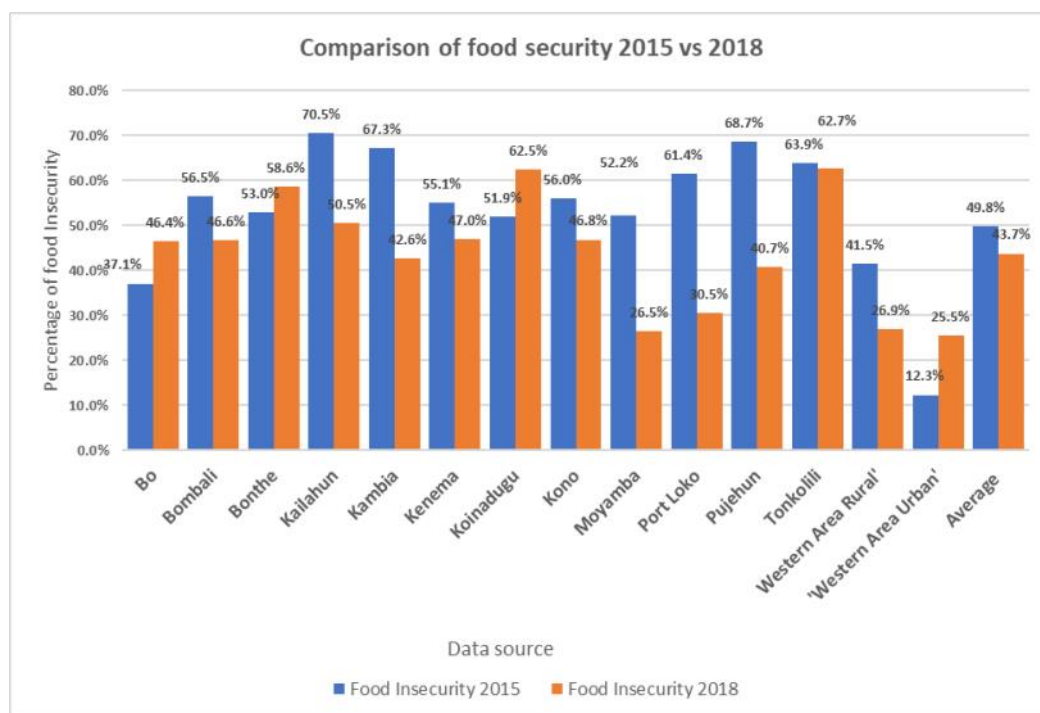
Figure 13. Food security 2018 by district



Bo district

Food insecurity increased from 37 to 46 percent in Bo district since 2015. This deterioration may be explained in part because of the economic downturn in the country, in addition to less focus on food security programming in the district due to more favourable food security situation reported in 2015. Furthermore, it should be noted that Bo district was found to have the second lowest proportion of households engaged in agricultural production (55.1 percent) by the CFSVA 2015, contributing to low production food in the district. Considering increments in the prices of food commodities, as a higher proportion of households in Bo are more dependent on purchases from markets, it can be anticipated that this may have negatively impacted on household food security.

Figure 14. Comparing levels of food security, FSMS 2018 to CFSVA 2015



Bombali district

The proportion of food insecure households in Bombali district decreased from 57 to 47 percent since 2015, demonstrating marginal signs of recovery since the EVD outbreak. However, the fact that the food insecurity rate has remained high may in part be explained by the impact of the 2018 erratic rainfall patterns which disproportionately affected the north-western region, reducing agricultural production and availability and access to food. The proportion of households categorized as severely food insecure is 4.8 percent, above the average of 2.4 percent and the third highest nationally.

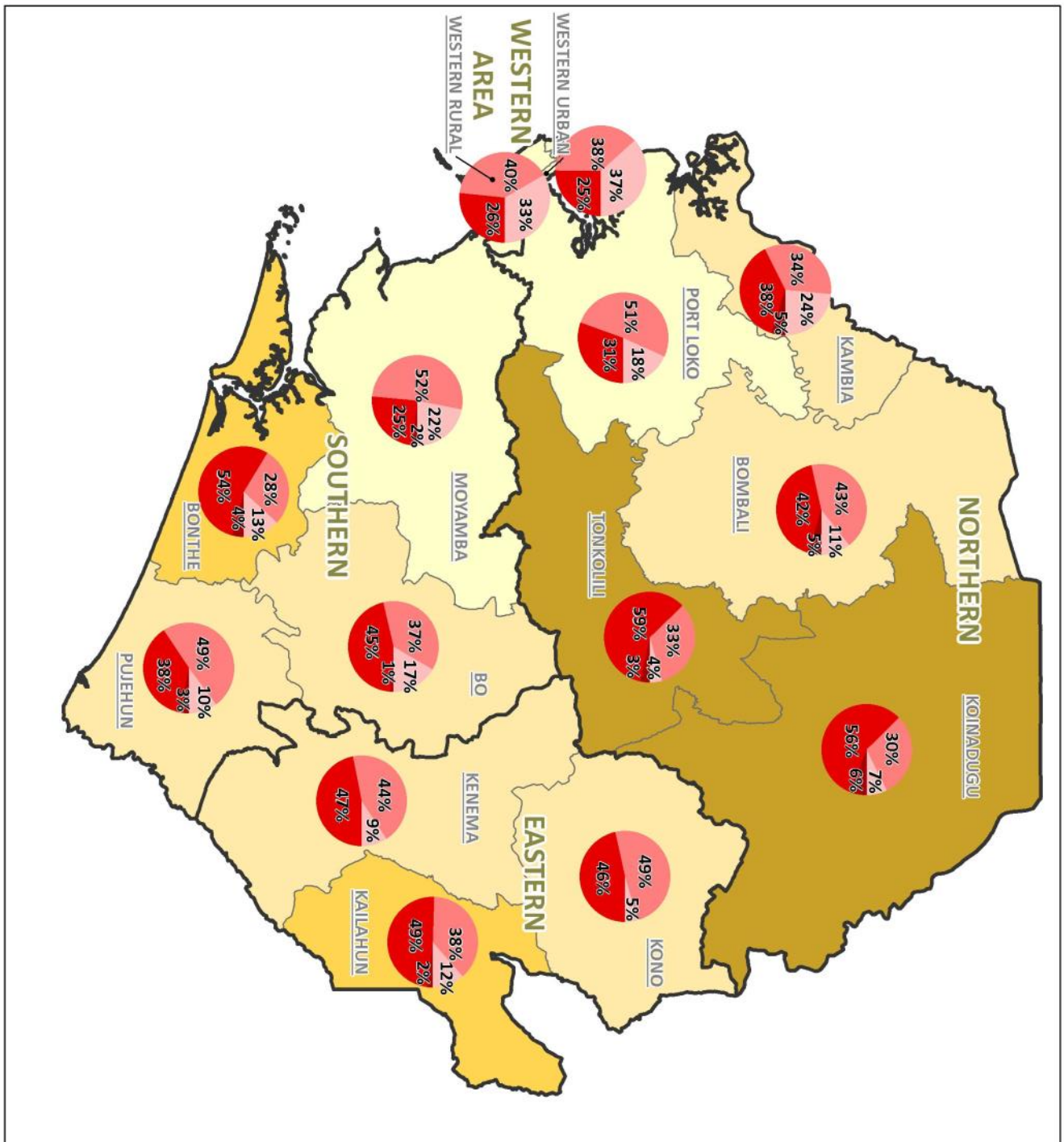
Bonthe district

Food insecurity further increased since 2015 from 53 percent to 58 percent in Bonthe district. The sustained high level of food insecurity may be explained by the remoteness of this area, compounded by very poor road conditions which impede access to food especially during the lean season. Furthermore, it should be noted that fishing forms a highly significant livelihood activity in the district and an important source of protein among households. In September during the time of data collection, heavy rain and rough seas prevent most fishing activities, which may result in seasonally aggravated food insecurity.

Kailahun district

Food insecurity fell from 71 percent to 51 percent in Kailahun district. This reduction reflects an improvement in the operational context since the EVD outbreak, which resulted in the imposition of long-term movement and trade restrictions, greatly curtailing agricultural production and availability of food. However, it should be noted that the improvement in the food security situation since the EVD outbreak has been relatively slow (food insecurity in 2010 was just 21 percent), which may be in part explained by the impact of the 2018 erratic rainfall in the district, which may have constrained agricultural production and exacerbated food insecurity.

Fig 15: Food security 2018 map by districts



REGION (4)

DISTRICT (14)

Percentage of Food Security

Food Secure

Marginally Food Secure

Moderately Food Insecure

Severely Food Insecure

Food Insecurity Rate

60% - 70%

50% - 59%

40% - 49%

< 40%

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Print Size: A3



Map Reference: SLE_VAM_FSMS_2018_DO

Scale: 0, 5, 10, 20 Miles / 0, 12.5, 25, 50 Km

Data source: WFP Statistics Sierra Leone (SSL)

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Kambia district

The proportion of food insecure households in Kambia district reduced from 67 percent in 2015 to 43 percent in 2018, but remains high. Kambia district was highly affected by the EVD outbreak, especially toward the end of the crisis when it continued to register high numbers of cases, resulting in longstanding trade and movement restrictions that impacted on agricultural production. With Kambia district the highest producer of rice in Sierra Leone, the improvement in the food security situation may demonstrate the impact of the normalization of trade conditions. However, the food insecurity rate may have remained high because of the impact of erratic rainfall on agricultural production, particularly impacting groundnut production, which may have reduced household incomes for food during the lean season. It is also important to note that a high proportion of farmers reported that rainfall deficits had impacted on rice cultivation, and this may reduce the 2018 harvest. Kambia district recorded the second highest proportion of households categorized as severely food insecure (5.1 percent), above the national average of 2.38 percent.

Kenema district

Food insecurity remains high in Kenema district, narrowly reducing from 55 to 47 percent. With Kenema district one of the first to be affected by the EVD outbreak, the district was subjected to long-term trade and movement restrictions to curtail the spread of the disease, which may have delayed the recovery process. The fact that food insecurity remains high in the district may also reflect structural issues regarding the local economy, whereby many households are engaged in mining activities, with only 56.3 percent of households engaged in farming, and a high proportion of those growing cash crops (cocoa and coffee). Low production of food crops in the district is compounded by treacherous road conditions serving many chiefdoms, impeding availability of food from other districts during the lean season.

Koinadugu district

The food insecurity situation in Koinadugu worsened from 52 percent in 2015 to 62 percent in 2018, the second highest nationally. This deterioration may be in part explained by the impact of the 2018 erratic rainfall on agricultural production, particularly the impact on vegetable production, which particularly affected the northern region. Furthermore, livestock rearing households were badly affected by a twin shock of late rainfall, reducing availability of pastures for grazing, in addition to the 2018 livestock disease outbreak resulting in high mortality of cattle and small ruminants in this district of more prevalent

livestock ownership. Poor road conditions, especially in chiefdoms within the newly formed Falaba district, also impede trade flow of agricultural commodities in the district. Also of concern is the fact that 6 percent of households are categorized as severely food insecure, the highest nationally and above the 2.4 percent average.

Kono district

Food insecurity remains high in Kono district, marginally reducing from 56 percent in 2015 to 46 percent in 2018. Reasons for sustained high food insecurity in Kono district may be caused by structural factors, whereby mining directly competes with farming activities in terms of the utilization of agricultural land. Furthermore, it should be noted that a high proportion of farming households are engaged in cash crop rather than food crop farming, limiting the availability of food during the lean season, a factor exacerbated by very poor road network serving large parts of the district.

Moyamba district

Food insecurity dramatically reduced from 52 to 27 percent in Moyamba district, which may in part be because of effectively targeted and implemented food and nutrition security and livelihood interventions by development partners in the district. The district is rich in bauxite and rutile deposits, which have been mined by private companies through the local labor force and has the potential to reduce the economic vulnerability of households and reduced their food insecurity. Also, Moyamba districts is the hosts to the School of Agriculture in Njala University which has commenced active operations in Agricultural research and extensions, this might have played a significant role in improving food production which has impacted food security positively within the districts.

Port Loko district

Food insecurity reduced in Port Loko district from 61 to 31 percent. Port Loko was affected by a protracted EVD outbreak, registering high numbers of cases until the end of the crisis. This resulted in longstanding trade and movement restrictions, which impacted on agricultural production and food insecurity.

The reduction in food insecurity may be because of Port Loko district being targeted by food security and livelihood interventions by development partners, both because of proximity and easy access from Freetown, and historically high food insecurity since 2005. The dividends of these investments in the agricultural sector combined with better market access for farmers to urban centers may explain substantial reductions in food insecurity. The food insecurity rate may be lower than expected considering the expected impact of the erratic rainfall in the Northwestern region.

Pujehun district

Food insecurity reduced but remained high in Pujehun district, falling from 68 percent in 2015 to 41 percent. During the EVD outbreak to curtail the spread of the virus into the district, strict movement and trade restrictions were enforced by district authorities, constraining agricultural production. The reduction in food insecurity may thus in part be explained by the normalization of economic conditions.

Furthermore, it should be noted that significant food security and livelihood investments have been made in the district by development partners, which may have contributed to increasing food production. The development of the international road with Liberia has also significantly improved access in Bari, Maple, Peje, Soro Gbema and Sowa chiefdoms, both enhancing market linkages for agricultural produce and improving the flow of food into the district.

Tonkolili district

At 62 percent, the proportion of food insecure households is highest in Tonkolili, remaining unchanged since 2015. Many factors may explain the sustained high level of food insecurity.

Competition for agricultural land by increased gold, iron ore and tantalite mining activities were cited in a district planning session as constraining farming in the district. Furthermore, the impact of the 2018 erratic rainfall is anticipated to have reduced agricultural yields this farming season, exacerbating household food insecurity.

Western Rural district

Food insecurity reduced sharply in the district from 42 percent in 2015 to 25 percent.

This reduction may be explained by the normalization of economic conditions since the EVD outbreak, whereby trade and movement restrictions greatly impeded the market activities of the high proportion of petty traders in the district.

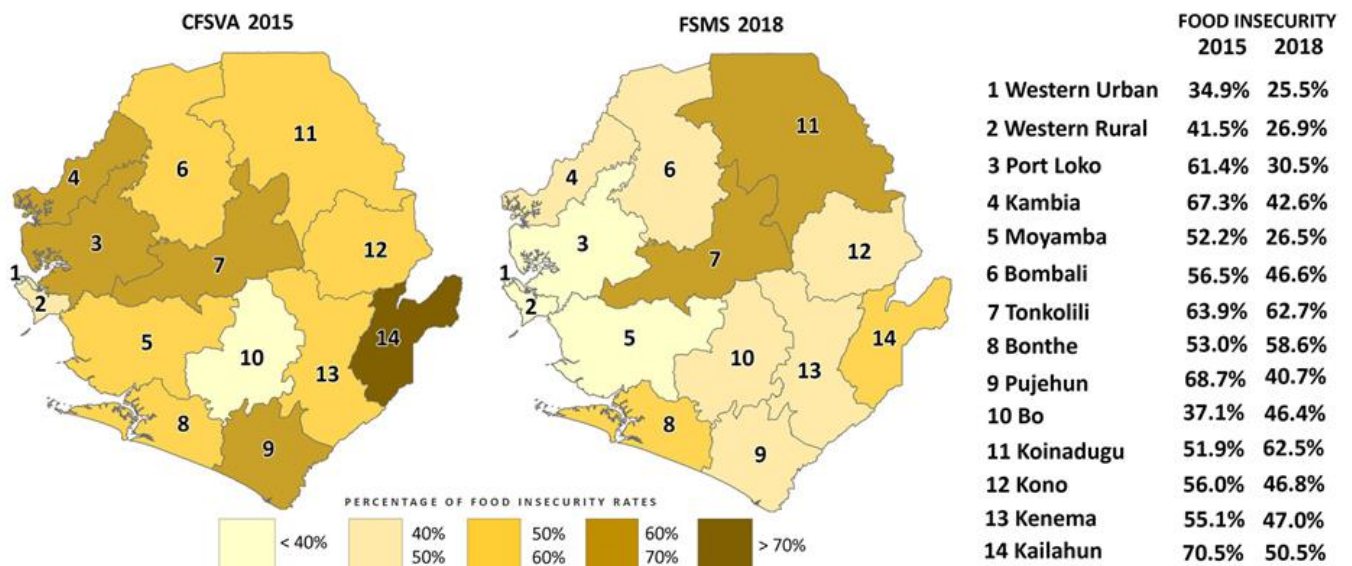
Western Area Urban district

Food insecurity increased from 12 percent in 2015 to 25 percent in 2018 in Western Area Urban which contains the capital, Freetown. This increase in food insecurity is largely caused by a statistical factor, whereby for the 2015 CFSVA the Urban Slums were considered as a separate administrative entity, and for the FSMS Western Area Urban and the Urban Slums were grouped together.

However, food insecurity may also have increased in Freetown overall because of economic factors, including high inflation which have increased the cost of imported food, impeding access among poor households, in addition to recent increases in fuel prices. With rapid urbanization and continued population growth of Freetown, the increasing trend of food insecurity is a cause for concern.

The food security situation is expected to improve over the next few months, as the harvest of Sierra Leone's main staple rice will have been completed, increasing household food stocks. However, it is anticipated that this year's harvest may be lower than usual because of the impact of the erratic rainfall patterns this year, which resulted in poor germination of rice seedlings. Consequently, the lean season may begin earlier in 2019 as household food stocks will be depleted earlier than in a typical year.

Figure 16. Food Security by districts, FSMS 2018 and CFSVA 2015



13. KEY RECOMMENDATIONS TO IMPROVE FOOD SECURITY

- FSMS findings to be used to design and target food security and agriculture and livelihood interventions to optimise programming.
- Provide food insecure households with targeted food or cash based transfers to address their short-term needs taking into consideration relevant aspects such as their vulnerability and livelihoods as well as seasonality.
- Government and partners to implement nutrition-specific interventions, including provision of nutrition support through health facilities, to pregnant and lactating women and children aged 6-59 months.
- Scale-up of nutrition-sensitive activities to encourage greater dietary diversity and consumption of micronutrient rich foodstuffs. Activities should include behavioural change communication to raise awareness of improved childhood and maternal feeding practices and increased farmers access to bio-fortified and micronutrient rich food crops.
- Support smallholder farmers to develop irrigation systems to enable multiple cropping throughout the year to increase year round access to food.
- Provide training and disseminate information on improved agronomic practices to farmers to increase their yields.
- Support smallholder farmers with improved seeds, agro-inputs and tools to increase their yields and production. Seed and agro-input support must be provided in a timely manner consistent with the seasonal calendar. Priority crops should include rice, ground nut and vegetables.
- Strengthen the poultry and livestock sector to increase production of protein rich food stuffs. This includes improved access to veterinary services and livestock breeds.

14. BEST PRACTICES AND LESSONS LEARNT FSMS 2018

- Need for regular monitoring of food and nutrition situation in Sierra Leone to truly understand root causes and dynamics of food security. FSMS needs to be undertaken twice a year at a minimum, once in the immediate post-harvest period and once during the lean season.
- Capacity augmentation support to MAF Planning Evaluation Monitoring and Statistics Division in electronic data collection, specifically provision of hardware, software and technical training.

15. COMMON TERMS AND DEFINITIONS IN FOOD SECURITY

Community Asset Score (CAS): measures the number of functioning assets that enable a community and its inhabitants to resist or mitigate the impact of different shocks.

Dietary Diversity Score (DDS): measures the number of different food groups consumed over a given period and provides an estimate of the quality of the diet.

Food Consumption Score (FCS): Definition: A household's food consumption, which contributes to defining the household's food security situation, is measured through the Food Consumption Score (FCS), an indicator that measures a household's food intake over the seven-day period prior to being interviewed as part of the survey. The FCS investigates the frequency that different food groups are consumed triangulated with their relative nutritional importance. Based on their FCS, households are classified into three groups: Poor, Borderline and Acceptable. These are the standard FCS cut-off points used globally.

Food for Asset (FFA): Food assistance modality addressing immediate food needs through cash, voucher or food transfers, while at the same time, it promotes the building or rehabilitation of assets that will improve long-term food security and resilience.

Food security: defined as existing when all people, always, 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

Food Security "Access": is to a large extent determined by food prices and household resources. Important drivers of food access are household resources, food prices, food preferences and socio-political factors such as discrimination and gender inequality.

Food Security "Availability": can be described as the extent to which food is within the reach of households (i.e. in local shops and markets), both in terms of sufficient quantity and quality. It is also strongly related to the overall availability of food, which is determined by domestic food production, commercial food imports, food aid, road and market infrastructure, the degree of market integration, and local market institutions.

Food Security "use and Utilization": Relates to Food and nutrition knowledge of food preparations, health status, hygiene to so that food is nutritiously and hygienically prepared to provide dietary diversity for health body.

Household Food Consumption Score: was measured using the Food Consumption Score (FCS) technique, which is a composite of dietary diversity and food frequency measures. Dietary diversity refers to the number of different/diversified foods or food groups consumed, and food frequency refers to the food consumed over a 7-day period.

Household Coping Strategies: are proxy indicators for food-access related food security. They can provide insight into how households cope with income and food shortfalls.

Market Price Information: provides an indication of household affordability given its income levels. Any food price increases can limit households' food access thereby compromising its food security.

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