



Liberia

June 2015: Liberian households increase coping as lean season begins.

Tracking food security during the Ebola Virus Disease (EVD) outbreak

Highlights

- With the onset of the lean season, coping strategies worsened and were reported the worst in the South East and in Bong County.
- Food prices remained relatively stable while wage rates and terms of trade rose, especially in Bong County

Households use more coping strategies in the SE region and in Bong County, Liberia

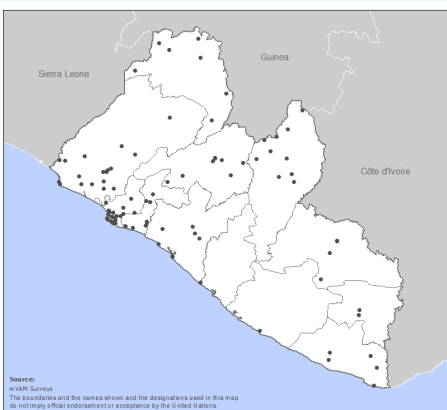
The reduced Coping Strategies Index (rCSI) measures the frequency and severity of the mechanisms households employ such as skipping meals or reducing the size of portions when faced with food shortages. A higher score indicates that households are resorting to more frequent or severe negative coping strategies. Detailed information on the rCSI can be found [here](#).

With the onset of the lean season, the consistent improvements in coping seen over the last five months unfortunately reversed course in June. The lean season is the time of year when household food stocks are at their annual low before the harvest. The beginning of the lean season also coincides with that of the rainy season in Liberia, compounding difficulties because road and market access are restricted.

Figure 1. rCSI in June 2015 by sample domain



Source: WFP mVAM



Methodology

June 2015 marked the ninth round of data. 1,150 questionnaires were completed in Liberia from the 16th to the 19th via SMS. The map below shows the cell phone towers from which responses were received. Details on methodology are available [online](#).

New Ebola cases in in Liberia after several weeks.

A new case of Ebola was identified in Margibi County on 29 June, marking the first new confirmed case since 20 March.

Source: [WHO Ebola Situation Report, 1 July 2015](#)

The rCSI in Liberia rose by 7.1% between May and June with an average increase of 0.7 per respondent.**¹ Nationally the proportion of individuals who cut meal frequency as a coping strategy increased from 70.2% to 72.2%.**² Reduced coping levels increased in the traditionally poor and highly food-insecure counties in Southeast Liberia (Grand Gedeh, Grand Kru, Maryland, River Ghee, River Cess, Sinoe). Mean rCSI for this region increased by 24.6% for June.**¹ The onset of the lean season and the seasonal deterioration of roads is the most probable cause for the intensification in negative coping.

Bong County, usually the least food-insecure region in Liberia, was one of only two counties in the country with statistically significant increases in reduced coping from May to June. Coping levels as measured by the rCSI mean increased by 19.8% in June.*³ This is possibly attributable to the rainy season's impact on Bong County where rainfall for the month of June was 98% of average, 230mm (as tabulated by the VAM Seasonal Monitor). Other parts of Liberia, particularly the SE and coastal regions received only on average 85% of their typical rainfall for the month.

Source: WFP mVAM

Continued stability in food prices in Liberia

In Liberia, food prices have been stable in country for the last 6 months; no meaningful or statistically significant change in prices was detected between the months of May and June. This trend is corroborated by market analysis by [Building Markets](#). Results from [FEWS NET's](#) most recent SMS-based survey find that 78 percent of respondents reported markets in their communities were open and operating normally and 72 percent of respondents reported adequate food availability in these markets.

In Liberia, the month of June is traditionally a period where lots of manual work is needed for agricultural activities such as field preparation, planting and harvesting of different crops. In Liberia, a statistically significant rise of 2%***³ was seen in daily wages for manual labour wages between May and June, though the major increase was in Bong where it was 17%.**³

Figure 3. Average daily wage rate for unskilled labour

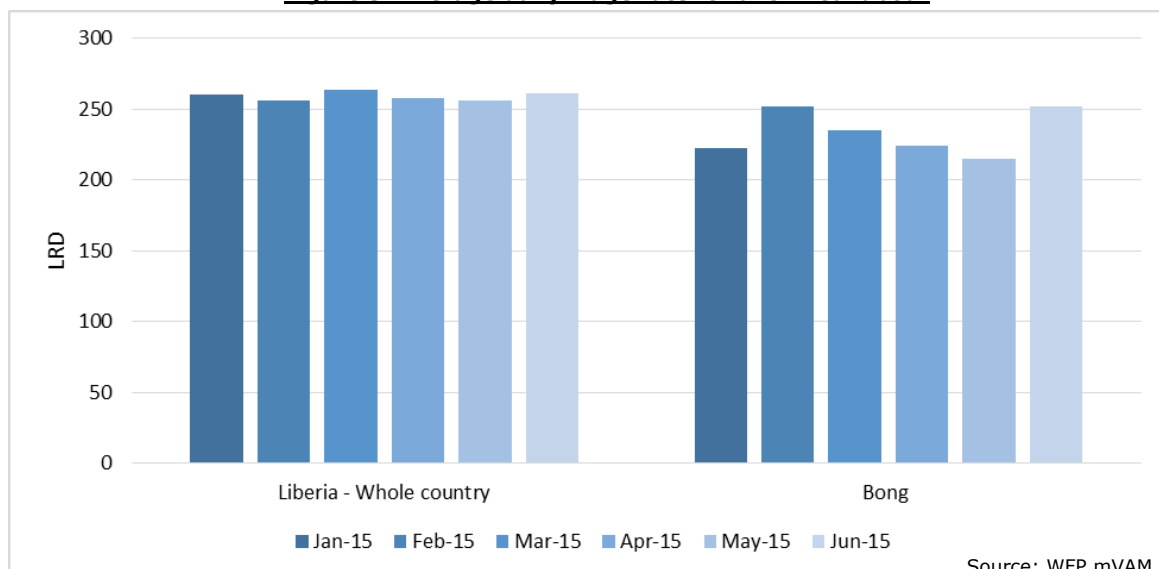
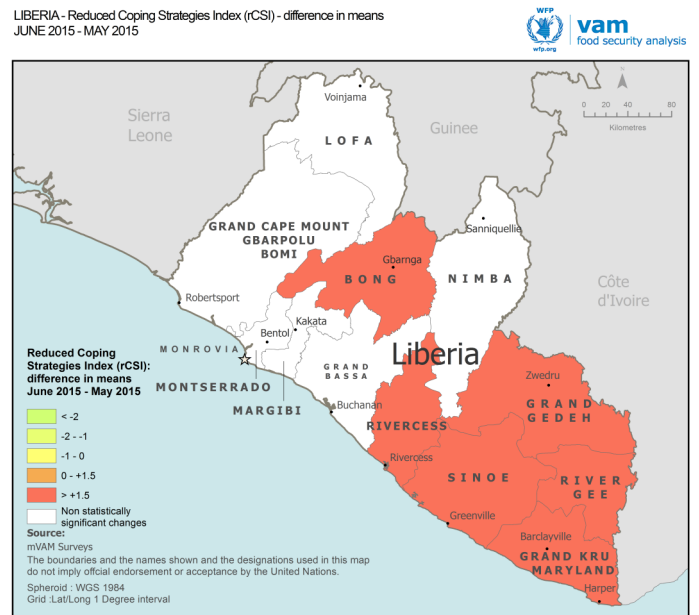
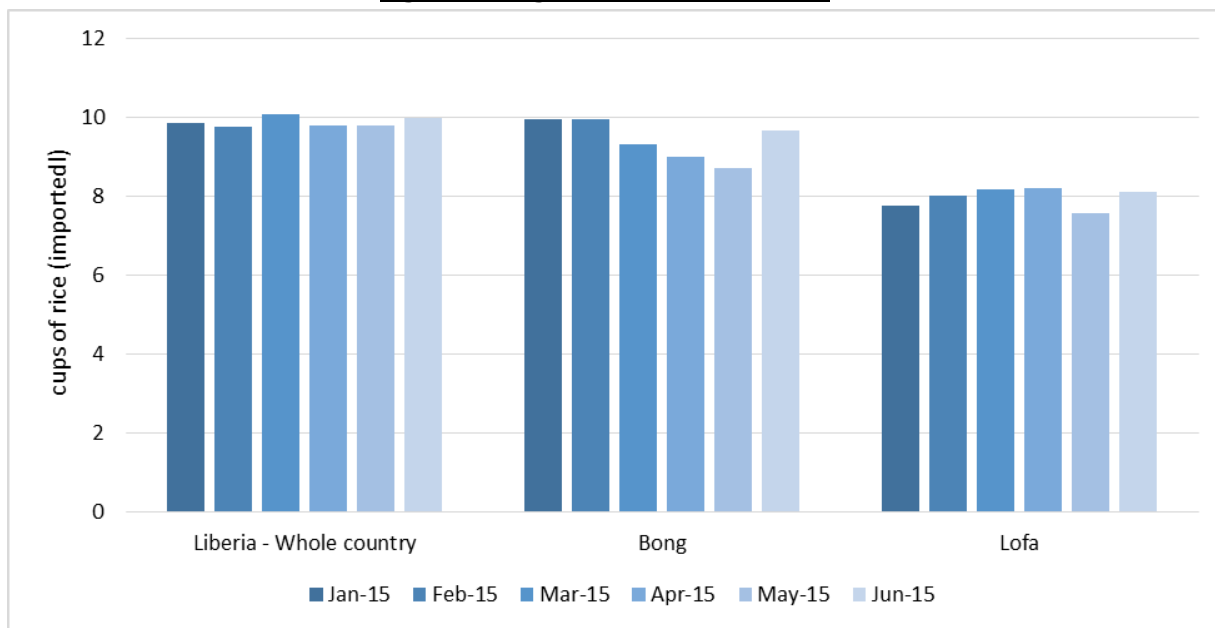


Figure 2. statistically significant changes in rCSI



Corresponding with a rise in daily wages, terms of trade increased modestly nationwide. The terms for imported rice increased by 2%; by 3% for local rice and 1% for palm oil.**³ The rises were in part driven by a substantial increase in Bong county where the terms of trade for imported rice increased by 10%; by 14% for local rice and by 15% for palm oil.**³ Terms of trade also rose in Lofa County (by 7% for imported rice and 6% for local rice).**³

Figure 4. Wage-to-rice terms of trade



Source: WFP mVAM

Perceptions of food security in June

At the end of the questionnaire, participants are asked an open-ended question, "Tell us about the food situation in your community." To analyze these responses and gauge perceptions of food security in June, we used the Pattern sentiment analysis algorithm developed by the Computational Linguistics & Psycholinguistics Centre at the University of Antwerp. For a given sentence, the algorithm returns the 'polarity': a measure of how positive/negative the statement is on a scale of -1.0 to +1.0.

The mean polarity shifted negatively by 0.04*¹ for Liberia denoting that more negative responses were received in June, particularly in Bong**¹ (which partially reflected the rCSI trend) and Nimba.*¹

In Liberia 'road' was mentioned twice the number of times it was in May while 'season' was mentioned three times more frequently. Furthermore, negative words such as 'bad', 'hard', 'expensive' or difficult' were used 12% more frequently than in May. This confirms a fall in confidence and increasing concern about road inaccessibility in the rainy season.

Figure 5: Word cloud for Liberia



Source: WFP mVAM

Conclusions and Outlook

Negative coping strategies increased in month of June and were observed the most in Bong and the South East. Weather conditions and depletion of household assets due to the lean season are likely contributors.

Despite these conditions, wage rates improved across Liberia and food prices remain stable.

Methodological Notes

Reporting statistical tests and significance level

Except where explicitly indicated, only statistically significant results are reported. To report the level of statistical significance, the following reference is used:

p-value	reported symbol
0.10 to 0.05	*
< 0.05 to 0.01	**
< 0.01	***

Correspondingly, the type of statistical test is also reported in superscript after the level of statistical significance. The following indicates the type of test referenced in the text:

1. Welch's t-test
2. Mann-Whitney Test
3. Paired t-test



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To download mVAM data on the Ebola-affected countries, please visit: http://vam.wfp.org/sites/mvam_monitoring/Ebola.html