



Guinea, Liberia and Sierra Leone

August 2015: Coping improves in all three countries this month

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

Highlights

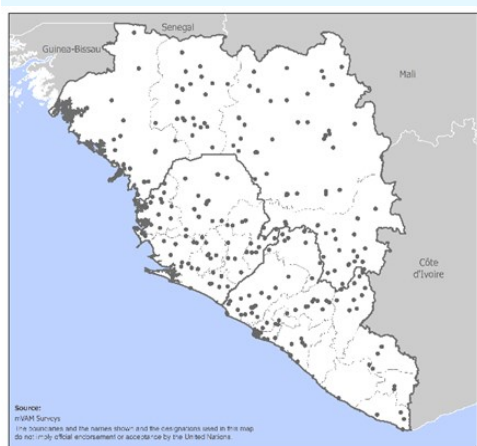
- **August normally marks the end of the lean season. This month there were strong improvements in coping in Guinea. In Liberia and Sierra Leone, coping also improved albeit more modestly.**
- **Little variation in prices, manual labour rates and correspondingly terms-of-trade were observed this month.**

Coping improves in all three countries

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 households are resorting to more frequent and/or severe negative coping strategies. Detailed information on the rCSI can be found [here](#).

In August, improvements in national rCSI levels were observed in all three countries. In Guinea, the rCSI on average fell -2.7 points for each repeat respondent (those who completed the survey in July and August).***¹ In Liberia, among repeat respondents the average rCSI decreased -1.6 points for each household.***¹ Similarly, in Sierra Leone, the rCSI decreased on average -1.42 points per household.***¹

Figure 1: rCSI in Guinea, Liberia and Sierra Leone, August 2015



Methodology

August 2015 marked the eleventh round of data collection, using SMS in all three countries. The interval between survey rounds this month was 2 weeks shorter than normal (25 to 30 days). With a shorter interval, results are less significant than a previous reporting rounds. In Liberia, 1,150 questionnaires were collected from August 8th to the 11th; in Sierra Leone, 1,020 questionnaires were completed from the 8th to the 12th and in Guinea, 981 questionnaires were completed from the 8th to the 14th. The adjacent map, shows the cell phone towers from which responses were received. Details on methodology are available [online](#).



vam
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In Guinea, since polling with SMS commenced in June, we have observed substantial improvements in the rCSI. This month, the rCSI decreased an average of -2.7 points among the 398 respondents who were surveyed in both July and August. The rCSI particularly improved in two areas: in Conakry it decreased on average -1.8** points per respondent and in Nzerekore it decreased -1.9 points per respondent.*** ¹ The proportion of all households using any negative coping strategy was lower than in July (90% vs 86%).** ² The proportion that used less expensive food (85% vs 80%)** ² or reduced the number of meals (65% vs 61%) as coping strategies was lower in August compared to July.* ² The decrease in the overall rCSI was also driven by reductions in the average number of days households resorted to coping strategies. Looking at the rCSI in August by sample domain, we note that Mamou-Labe and N'zerekore have higher average rCSI levels than the capital, Conakry and Kankan-Faranah.

In Liberia in July, despite being in the lean season, the rCSI improved and negative coping decreased. This month, we observe continued improvements and among the 672 repeat respondents, the rCSI fell on average by -1.6 points per person.*** ¹ In Margibi, the rCSI also decreased by a sizeable -3.2 points on average for each respondent.** The overall proportion of households using negative coping strategies decreased from 79% to 75%.*** ² This month, the national proportion of households using less expensive food as a coping strategy decreased from 75% to 70%.*** ² Observing the average rCSI by sample domain, we note that Monrovia and the Southeast have the lowest rCSIs while coping is highest in Bong and Lofa .

In Sierra Leone, the rCSI failed to improve in June and July, but in August we begin to see improvements in coping. Among the 508 repeat respondents the rCSI decreased on average by -1.42 points.** ¹ The rCSI also decreased an average of -1.8 points per respondent in the sample domain of Bonthe-Moyamba-Pujehun.*** ¹ In Sierra Leone, the difference (between July and August) in the proportion of households using negative coping was not statistically significant at both national and lower administrative levels. Last month, we noted a change in the proportion of poorer households using negative coping strategies, but this month, changes in the rCSI and proportion of negative coping strategies across wealth groups were not statistically significant. Observing the average rCSI by sample domain, the urban area of the capital, Freetown, has the lowest average rCSI, while the regions of Bombali-Koinadugu-Tonkolili, Kambia-Port Loko and Kailahun-Kono have the highest rCSI scores.

Figure 2: Monthly rCSI trends by country

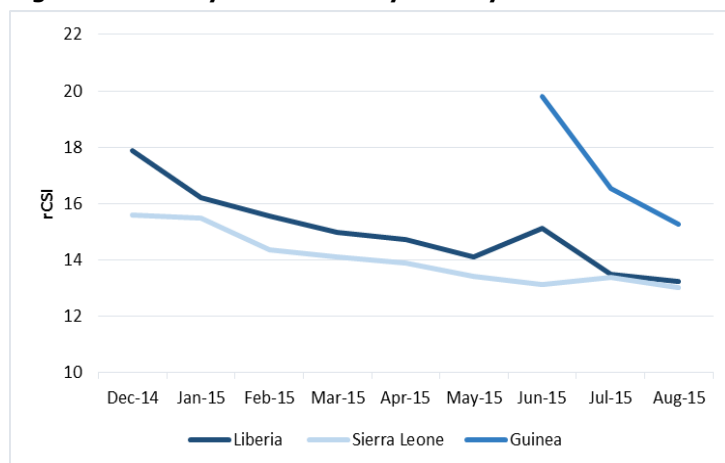


Figure 3: Average rCSI by region: Guinea, August 2015

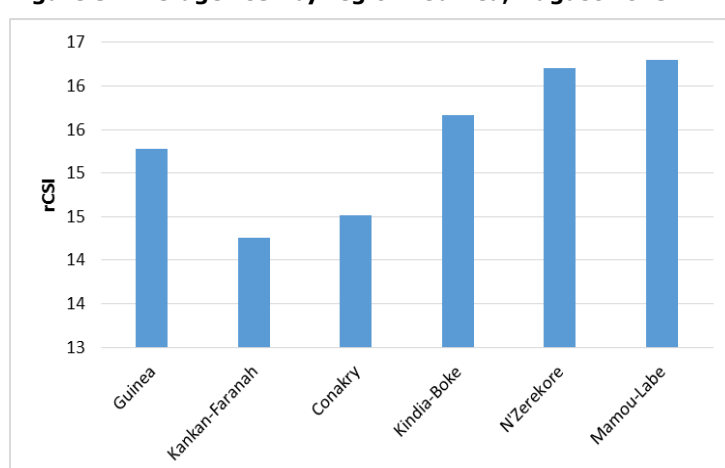


Figure 4: Average rCSI by region: Liberia, August 2015

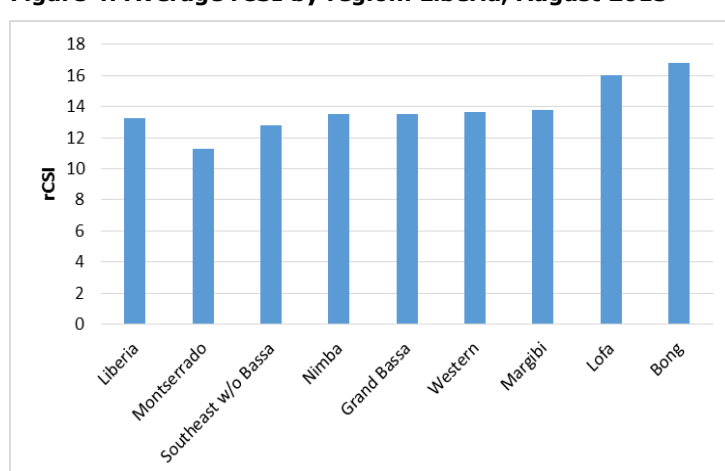
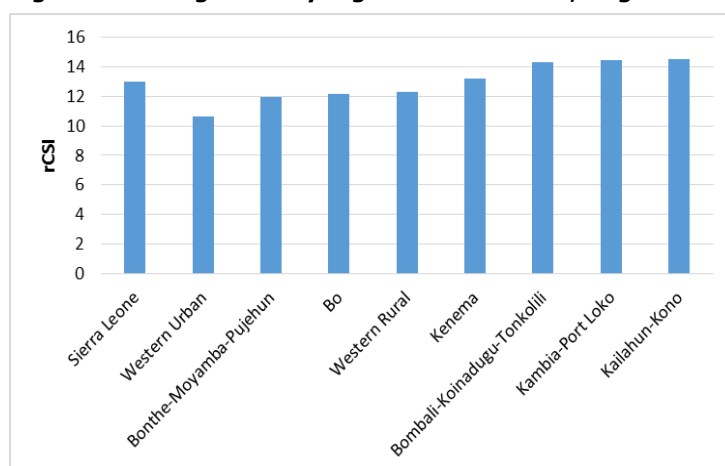


Figure 5: Average rCSI by region: Sierra Leone, August 2015



Ebola Update

In August, Ebola cases continued to decrease. By the end of August, all suspected contacts in Liberia completed their 21-day observation period and no new cases were detected. In Sierra Leone, one case was detected at the end of August, breaking a two week period without new cases, bringing the total number of cases detected in the month to four. According to the WHO, the overall case incidence has remained stable and the number of persons who are at risk of exposure continues to fall. Furthermore, at the beginning of the month, market restrictions were lifted by the Government of Sierra Leone. In Guinea, 11 cases were detected in August compared with 57 cases in July. Although the trend is encouraging, a few high-risk cases were detected this month that have the potential to have caused further transmission. [WHO Ebola Situation Report, 2 September 2015](#)

No significant price changes at national levels

Looking at the seasonal calendar, August is typically a transition month in [Guinea](#), [Liberia](#) and [Sierra Leone](#), when the lean season begins to taper off and harvesting and agricultural activities traditionally pick up. According to [NOAA's analysis](#) of rainfall from May to September, all three countries have received average or above average rainfall. While the abundance of rainfall can cause short-term difficulties such as flooding, reduced mobility and access to goods, in the longer-term this bodes well for agricultural activities and crop yields.

This month, no statistically significant changes in average national prices have been observed in any of the countries. In Liberia, comparing prices from the beginning of the year with those of August, prices have decreased for imported rice (-3%) and palm oil (-1%), while the mean price of local rice has not changed. This price trend is verified by a recent joint agency price monitoring [report](#). Price variations in Sierra Leone have been greater with prices for imported rice (+1%), local rice (+5%) and palmoil (+2%) all increasing since the beginning of the year. In Guinea, all commodities: imported rice (+1.5%), local rice (+4%) and palmoil (+3%) have increased in the last three months. National prices often hide regional fluctuations, but in this reporting round, we observe only a few changes in commodities prices at sub-national levels. In Bong, Liberia, the reported price of imported rice increased 6% from July. In Guinea, the reported price for local rice decreased 4% in Conakry while in N'zerekore the price rose 3%. In Kenema, Sierra Leone the price of palm oil increased 7%.

Table 1: Price changes (%), Sierra Leone, Liberia and Guinea

Area	Price Changes: July to August 2015		
	Imported rice	Local rice	Palm oil
Conakry, Guinea	-	-3.7%**	-
N'zerekore, Guinea	-	-3.4%**	-
Bong, Liberia	6.3%**	-	-
Kenema, Sierra Leone	-	-	7.4%**

Minimal change in wages and terms of trade

This month no statistically significant changes in manual labour wages were detected at either national or regional levels in Guinea, Liberia or Sierra Leone. Looking at the beginning of the year to August, wages have grown 8% in Liberia and 4% in Sierra Leone while wages have not changed in Guinea in the past three months.

Little movement in terms of trade is observed in Liberia and Sierra Leone. In Guinea, from July to August, terms of trade for a daily wage to a half-litre of palm oil fell from 8.5 to 6.5 in Conakry, reflecting the price increase without corresponding increase in manual labour wages.**³

Figure 6: Manual labour wages for all three countries

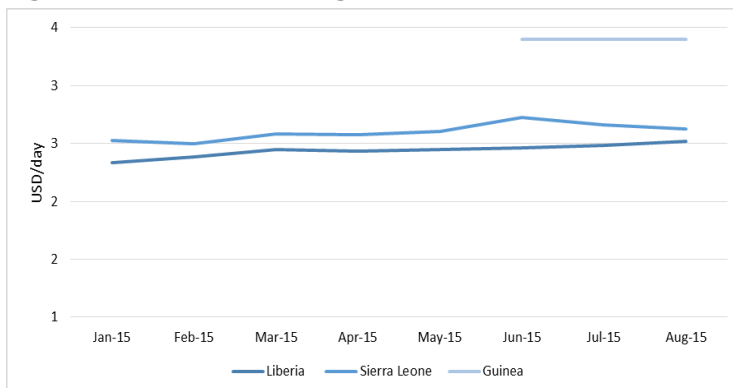


Figure 7: Average sentiment scores by region, August 2015



Perceptions of food security in August

At the end of the questionnaire, participants are asked an open-ended question, "Tell us about the food situation in your community." To analyse these responses and gauge perceptions of food security, we use the sentiment analysis tool [Repustate](#) which calculates the "polarity" of each response — a measure of how positive/negative the statement is on a scale of -1.0 to +1.0.

As observed in previous months, the mean sentiment scores for the three countries, Liberia (-0.02), Sierra Leone (-0.05) and Guinea (-0.02) were slightly negative.

References

1. The Coping Strategies Index:

http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

2. Disclaimer and Methodological Notes for mVAM ebola-affected regional bulletins

http://vam.wfp.org/sites/mvam_monitoring/Read_Me.pdf

3. FEWS NET's seasonal calendars for Guinea, Sierra Leone and Liberia:

http://www.fews.net/sites/default/files/styles/large/public/Guinea%20Oct_0.png

http://www.fews.net/sites/default/files/styles/large/public/Liberia%20Apr_0.png

http://www.fews.net/sites/default/files/styles/large/public/Sierra%20Leone%20Apr_0.png

4. United States National Oceanic and Atmospheric Administration (NOAA): ARC2 May-September Percent of Normal Rainfall:

http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/cf_test2/africa_arc/africa_arc_May-Sep_wa_pnorm.gif

5. MoA, LISGIS, FAO, WFP: Liberia Market Price Monitor , August 2015

<http://www.wfp.org/content/liberia-market-price-monitor-2015>

6. Repustate Sentiment Analysis Platform:

<https://www.repustate.com/text-analytics-api/>

Reporting statistical tests and significance level

Except where explicitly indicated, only statistically significant results are reported (for a good primer on statistical significance: <http://www.measuringu.com/blog/statistically-significant.php>). 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	***

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

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

Currency conversions

For comparability, prices and wages in national currency are converted into US Dollars using exchange rates to the US dollar at December 31, 2014 (<http://www.oanda.com/currency/historical-rates/>).



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