Liberia is officially Ebola-free.

Consistent with past trends, Liberia saw statistically significant improvements in coping in May. Geographically, the biggest improvements were seen in Bong County.

Food prices were stable compared to the previous month and wage rates remain stable in Liberia.

Analysis of food security perceptions show a more positive trend in May compared to April.

May 2015 marked the eighth round of data collection. The data was collected by SMS over one week in mid-May. A total of 1150 questionnaires were collected in Liberia. The map below shows the cell-phone towers from which responses were received. Details on methodology are available online.
Liberia remains Ebola-free

On May 9th, following 42 days since the last laboratory case was buried, WHO officially declared Liberia Ebola free. There were no subsequent cases detected in the month of May.


Consistent with past trends, Liberia saw significant improvements in coping in May

The reduced Coping Strategies Index (rCSI) measures the frequency and severity of the behaviours households engage in when faced with food shortages. A higher score indicates that households are resorting to more frequent or severe negative coping strategies.

Figure 2 shows that from April to May, the mean rCSI improved from 14.7 to 14.2. Amongst repeat respondents (those surveyed in both April and May), there was a statistically significant reduction in rCSI of -1.5.* 1 The median rCSI score (12), however, did not improve in May. This indicates that gains were asymmetrically distributed amongst the population.

Geographically, the biggest improvements were seen in Bong County, Liberia. In Bong County, the mean rCSI improved from 15.5 to 13.8 and a definite net improvement is evident for 55 percent of the population. Amongst repeat respondents (73 out of 95 observations), the mean improvement was 1.6 points.* 1 Table 1 shows all statistically significant improvements by district.

Table 1: Statistically significant changes in rCSI for May 2015 by sample domain

<table>
<thead>
<tr>
<th>Country</th>
<th>Governorate</th>
<th>Mean (May)</th>
<th>Mean (April)</th>
<th>Diff. Mean</th>
<th>Avg. Absolute Difference</th>
<th>P-Value (Wilcoxon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberia</td>
<td></td>
<td>14.12</td>
<td>14.73</td>
<td>-0.61</td>
<td>-1.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Bong</td>
<td></td>
<td>13.80</td>
<td>15.53</td>
<td>-1.73</td>
<td>-1.60</td>
<td>0.05</td>
</tr>
<tr>
<td>Southeast w/o Bassa</td>
<td></td>
<td>14.59</td>
<td>15.53</td>
<td>-0.94</td>
<td>-1.81</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: WFP mVAM

Improvements in prevalence of coping strategies are seen in rural areas of Liberia where the most vulnerable populations usually reside. This is further demonstrated by statistically significant improvements in rCSI for respondents with bush/dirt pit latrines (Figure 2). Their mean rCSI improved from 24.9 to 24.0. We also see improvements in overall prevalence or coping strategies amongst this group: there was a 3.8 percent decrease in coping prevalence from 96.3 percent to 92.5 percent in May.** 2

Circumstances improved for both households headed by women and those headed by men. Households headed by women experienced the biggest improvement, supporting the notion that the recovery has arrived at the most vulnerable households. The average rCSI for repeat households (household surveyed in April and May) headed by women improved by 2.9 points.* 1 In Sierra Leone, this same group saw an improvement of 2.5 points. **1 For repeat households headed by men, the average rCSI improved by 1.2 points.* 1

Figure 3: rCSI by household latrine type, Liberia

Source: WFP mVAM
**Food prices and wage rates and terms-of-trade remain stable**

In Liberia, local and imported rice prices remained stable or decreased in May in most districts, except in Montserrado, Lofa and Grand Cape Mount. In Montserrado, local rice prices rose by 5 percent, offsetting the decrease that took place in April. The price of palm oil rose in Bong (+6%), Grand Bassa (+4%) and Grand Kru (+3%). In the rest of the country, palm oil prices remained stable.

In May, manual labour wage rates remained stable in comparison to April. Rates decreased in Bong (-4%), Grand Bassa (-5%), Margibi (-4%) and Montserrado (-2%). Conversely, wage rates increased by 4 percent in Margibi and by 3 percent in Nimba. With the start of the rainy season, the demand for agricultural labour will continue to fall and therefore wage levels will also fall in rural areas. Wage-to-imported-rice terms of trade were largely stable in Liberia in May. The most notable decreases were in Lofa (-8%) and Grand Bassa (-6%). With a daily wage of just 7.5 cups of imported rice, purchasing power remains the lowest in Lofa. In Grand Bassa, purchasing power is resilient at 10.6 cups for the daily wage, in spite of a fall in wages.

**Perceptions of food security in May**

To gauge perceptions of food security in May, we used the Pattern sentiment analysis algorithm developed by the Computational Linguistics & Psycholinguistics Centre at 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.

Slightly more positive responses were received in May in Liberia. This reflects the improvement in coping highlighted in the rCSI analysis and an increase in the mean is observed (+0.016) though this improvement is not statistically significant. The same statistical test run by region reveals a statistically significant increase in sentiment in Bong County, Liberia, corroborating with its significant decrease in rCSI for May.** 3 In Liberia, the term 'Ebola' was ranked seventeenth in May (as it was in April), this corresponds with the absence of Ebola cases reported in May. In Liberia, the most used words by respondents in describing their food security situation were 'hard' and then 'bad', followed by 'good' third.

**In the words of respondents**

- "The food conditions are very bad because there is less food for an individual in our community due to less job opportunity." Female respondent from Bomi
- "Very hard to get food in my community. We go from community to community to find food. Sometimes we borrowed food from our neighbours." Female respondent from Bong
- "Now that we are in the dry season, the prices of food is increasing day by day. Therefore, it is very difficult for those who cannot afford to eat better." Male respondent from Lofa
- "FOOD! FOOD! FOOD! Food can be found everywhere and at every time. But the question is, how do I get it for my family and I... NO MONEY. All because --- NO JOB." Male respondent from Margibi
Conclusions and Outlook

In May, we see an improving trend of the coping levels in rural areas that have been affected by Ebola, as well as for households headed by women and for the poorest families. Geographically, the biggest improvements are seen in Bong County, Liberia.

In Liberia prices and wages remained stable. This also partially reflected in stable wage-to-imported-rice terms of trade. However, the lean season is approaching, and PRESAO is forecasting rainfall deficits that could have a negative impact on agricultural activities.

Methodological Notes: Reporting statistical tests and significance level

The level of statistical significance and the type of statistical test are reported with the following convention:

<table>
<thead>
<tr>
<th>Significance Level</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>0.10 to 0.05</td>
<td>*</td>
</tr>
<tr>
<td>&lt; 0.05 to 0.01</td>
<td>**</td>
</tr>
<tr>
<td>&lt; 0.01</td>
<td>***</td>
</tr>
</tbody>
</table>

1. Wilcoxon
2. Chi-Square test
3. Welch’s 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