

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

Highlights

- Households in Freetown and Monrovia used fewer negative coping strategies in January than in December. The same was true in Eastern Province, Sierra Leone. However, negative coping levels remained high in Lofa in Liberia, in Northern Province in Sierra Leone, and in Guinea's Forest region. Households headed by women are most vulnerable to food insecurity.
- Local rice prices for January dropped slightly in Guinea and were stable in Liberia, but they increased slightly in Sierra Leone. Palm oil prices are recovering in Forest Guinea and in eastern Sierra Leone. The lifting of movement restrictions is bolstering the recovery of markets and trade in Sierra Leone and Liberia.
- Wage rates for January improved in Liberia, but they continued to drop in Sierra Leone and Guinea, limiting access to food for wage labour-dependent households. As the land preparation season approaches, labour and agricultural input markets should continue to be monitored to assess prospects for the 2015 crop.



Source: WFP mVAM

Methodology

January 2015 marked the fourth round of data collection. The data was collected over a week in mid-January. The sample size was increased in Liberia and Sierra Leone to provide more granular estimates: 1,100 questionnaires were collected by SMS in Liberia and 1000 by SMS in Sierra Leone. The survey in Guinea was implemented by interactive voice response for approximately 400 respondents. Details on the samples, questions and possible mode effects are available online.



Ebola continues to affect Western Guinea and Western Sierrra Leone

In **Guinea**, 30 confirmed cases were reported in the week to 25 January. The western district of Forecariah, which borders Sierra Leone's Kambia district, accounted for half of all new confirmed cases. The northern district of Mali, which borders Senegal, reported its first confirmed case. Cases were also reported in Conakry and in the districts of Kissidougou and Macenta.

In Liberia, four confirmed cases were reported from Montserrado, the district that includes the capital, Monrovia.

In **Sierra Leone**, the frequency of new cases has decreased compared to the previous weeks, with 65 new confirmed cases reported in the week to 25 January 2015. The west of the country remains the worst affected, including the capital, Freetown.

Source: WHO Ebola Situation Report 28 January

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.

In January, coping levels eased in Freetown, Sierra Leone (rCSI=12.7, p=0.03) and Monrovia, Liberia (14.1, p=0.03) compared to December. Levels of negative coping also improved in Sierra Leone's Eastern Province (rCSI=15, p=0.03).

However, negative coping levels remained high in Lofa (rCSI=18.1), Bong (rCSI=18.4) and Maryland/Grand Kru (rCSI=19) in Liberia, and Bombali, Tonkolili and Koinandugu (rCSI=18.3) in Sierra Leone. With the exception of Maryland/Grand Kru, these are all areas that have been hard hit by the Ebola virus disease (EVD) epidemic. While the EVD caseload has now declined in these areas, food insecurity remains a concern.

In Guinea, the rCSI is highest in Forest Guinea (rCSI=24.1), Labe (rCSI=24) and Mamou (rCSI=24.1). Data in Guinea was collected by interactive voice response, which has tended to produce higher rCSI estimates than SMS.

Women headed households and poorer households are worse off

The data collected over the four monthly rounds has consistently shown that households headed by women engage in more severe coping strategies than those headed by men (see figures 3a to 3c).

More deprived households also appear to show higher levels of negative coping. In Sierra Leone and Liberia, households were asked about their latrine type, as this is a proxy for household wealth. The results showed that households with access to their own or a shared flush toilet have a lower level of coping (rCSI=9.4–15.9) than ones with other latrine types (rCSI=16.6–23.2).

Figures 3: rCSI by household head

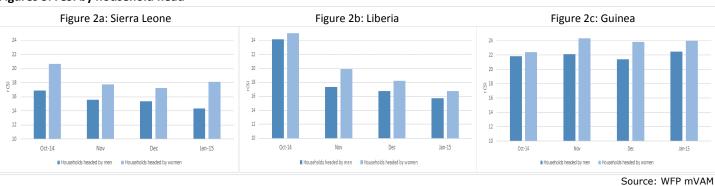
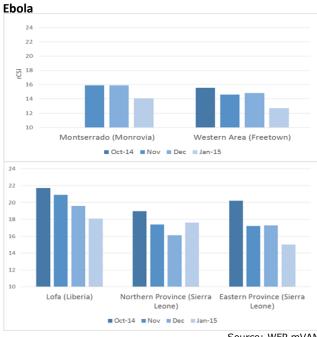
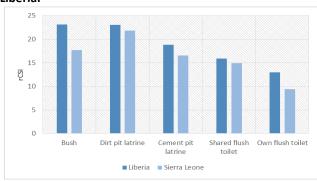


Figure 1: While the rCSI has dropped in Monrovia and Freetown, it remains high in rural areas most exposed to



Source: WFP mVAM

Figure 2: Figure: rCSI by latrine type, Sierra Leone and Liberia.



Source: WFP mVAM

Food prices

The <u>International Growth Center</u> found that after falling in September, rice shipping to Conakry, Freetown and Monrovia seems to have normalized in November and December. According to WFP data for January, the price of local rice in Liberia remained stable compared to December. Local rice prices dropped slightly in Guinea but in Sierra Leone, they rose by 4 percent in January, a trend that should be monitored in the coming months.

Many survey respondents in Sierra Leone said they thought food was expensive, the result of lower production or measures that restrict food trade flows to remote areas. According to the International Growth Center, transport

cost and movement restrictions have had some effect, especially on imported rice prices in quarantined areas. One male respondent in Sierra Leone's Southern Province said "the food situation is hard, because the sea route is closed because of the Ebola outbreak. So traders find it difficult to bring in commodities." The lifting of quarantine measures announced in January is expected to ease internal trade flows.

By contrast, many respondents in Liberia said that the recent harvest had improved food supply. Interestingly, respondents from low-income households tended to emphasize high prices and low purchasing power. 'Food is not hard to find, but families can't afford anything to eat', in the words of a male respondent in

Table 1: Trends in local rice prices, Guinea, Liberia and Sierra Leone; Dec 2014 to Jan 2015

Country	Local rice
Guinea	-4%
Liberia	Stable
Sierra Leone	+4%

Source: WFP mVAM

Montserrado. Respondents from households with higher incomes tended to offer a more positive outlook on food security in their community.

At this time of year, palm oil sales are a complementary income source for rural households. In Liberia palm oil prices decreased by 11% from December to January. However, prices increased slightly in the palm-oil-producing eastern region of Sierra Leone, and they have continued to rise in Forest Guinea. In the case of Sierra Leone, this might indicate a trade recovery: the IGC reports that the number of palm oil traders is returning to levels seen in previous years (although recovery is not complete).

While wages recover in Liberia, they decline in many areas of Sierra Leone

In Liberia, daily wage rates increased in all areas in January, reaching between \$L200 and \$L270. Daily wages are above \$L250 everywhere except in Lofa, where they remain low at an average of \$L205. Wage rates have rebounded strongly in western Liberia, when they had been affected by movement restrictions in December. In

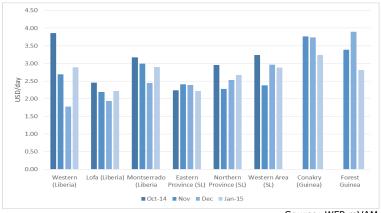
general, the improvement in wage rates is thought to be seasonal: harvesting activities have ended and threshing is now taking place, a labour intensive occupation that commands higher wages.

By contrast, wage rates continued to decline in January in Sierra Leone, down 3 percent compared to December. Wage rates improved only in Northern Province; they remain below 10,000 Leones a day in Eastern Province. Similarly, rates declined in Guinea in January, except in Lower Guinea. Wage rates now stand between 20,000 and 23,000 GNF a day, with the lowest rates found in Forest Guinea.

The impact of EVD on labour markets is documented in recent World Bank phone surveys in Liberia and Sierra Leone, which show that nonfarming self-employed wage earners and women are bearing the brunt of the socio-economic consequences of the epidemic. WFP survey data suggests that labour markets in Sierra Leone continue to be disrupted.

A concurrent increase in local rice prices and a decline in unskilled wage rates has meant that terms of trade have declined in Sierra Leone's Eastern Province, dropping from 12 cups of rice to 11 cups for a daily wage labourer. However, better wage rates saw terms of trade improve in Northern Province. In Liberia, terms of trade improved in all monitored areas in January, thanks to a recovery in wage rates and stable rice prices. Terms of trade for wage labourers fell in Guinea, mainly because of lower wage rates.

Figure 4: Wage rates, unskilled labour in USD/day. Oct 2014 to Jan 2015



Source: WFP mVAM

Figure 5: Terms of trade, wages to rice (local rice in Sierra Leone [SL], imported rice in Liberia)



Source: WFP mVAM

In the words of the respondents:

- Because of Ebola, most of us were not working' female respondent in Maryland, Liberia.
- 'Food is not hard to find, but families can't afford anything to eat' male respondent in Montserrado, Liberia.
- 'Food situation in my community is very hard to cope with because the price of food is escalating. Especially domestic food' male respondent in Eastern Province, Sierra Leone.
- 'The food situation is hard, because the sea route is closed due to Ebola. So traders find it difficult to bring in commodities' male respondent in Southern Province, Sierra Leone.

Conclusions and Outlook

Food security improved in January as households resorted to fewer negative coping strategies, especially in Freetown and Monrovia. Nonetheless, households continued to use negative coping strategies in northern Sierra Leone, Forest Guinea and Lofa, which suggests they are still recovering from the Ebola crisis. The data has consistently shown that poorer households and those headed by women are worse off than others, suggesting that these two factors are important in determining how households are coping with the crisis.

There is wide variety in labour market performance. While a recovery seems to be taking place in Liberia, wages remain stagnant in many areas of Sierra Leone and Guinea, limiting household incomes.

The lifting of quarantines is expected to trigger recovery for markets, trade and economic activity. On-the-ground assessments should seek to determine whether farmers will have access to the inputs and casual labour needed to prepare their land for the 2015 agricultural season.



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