



ECONOMIC IMPACT OF THE EBOLA CRISIS ON SELECT LIBERIAN MARKETS

Focus on Monrovia and Lofa and Nimba Counties
November 4th, 2014

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Executive Summary

Though the main focus of the Ebola virus disease crisis in Liberia has been around prevention, treatment and public health, the economic impact of Ebola is quickly demonstrating that it also merits close attention. Households have less access to basic goods on the market because of reduced incomes resulting in a change in eating habits; supply of goods is constrained due to border and market closures, as well as transportation problems; and challenges in the agricultural sector may affect farmers' ability to have a normal harvest in the upcoming planting seasons. Some of these issues may have immediate remedies, while others will require medium to long-term interventions.



Liberia — Alison Hemberger/Mercy Corps 10/14

To better understand the economic impact of the Ebola crisis on households and markets in Liberia, Mercy Corps conducted an assessment in Lofa and Nimba counties and parts of Monrovia from Oct 3-13, 2014. Lofa and Monrovia were chosen due to the high number of Ebola cases in these areas and Nimba was chosen due to a rising number of cases in the period preceding the assessment. The team conducted 122 household surveys, 122 vendor surveys, 20 focus group discussions and 65 key informant interviews. The beginning of August 2014 was used as the crisis onset when asking respondents “before and since the crisis” questions. This was when the Government of Liberia (GoL) declared a state of emergency and implemented more strict protocols for combating the spread of Ebola.

The assessment findings confirmed the assumption that **households are feeling pressure on their food security**; most households surveyed in Lofa, Nimba and Monrovia reported eating fewer meals per day, eating less food at each meal and eating lower quality or less preferred foods. Sixty-six percent of households surveyed also reported a decrease in household income. People are also purchasing food on credit and borrowing money. Of those borrowing money, 64% say that it is out of the ordinary for the assessment period and 75% of them are using the money borrowed for household expenses. Based on the data collected, if no changes are forthcoming, Mercy Corps expects that households will face a critical level of food insecurity by April/May 2015.

Before Ebola, I sold maybe 10-15 big bags of peppers per day. Now, I sell maybe two-three bags. I have eight children, but we've had to reduce the amount of rice we eat from 10 cups per day to eight.

Pepper vendor, Monrovia Gobachop Market

Not only has household purchasing power been affected, but **the supply of goods in local markets has declined** as well. In August 2014, the GoL closed borders with Guinea, Sierra Leone and Ivory Coast and recommended the closure of weekly markets as Ebola prevention measures. Markets in the border counties of Lofa and Nimba relied heavily on cross-border trade for both purchasing and selling, as it was closer and less expensive to purchase goods from across the border than bringing them from Monrovia. Half of all vendors surveyed reported changing the location where they purchase their goods. Most non-locally produced goods in Lofa and Nimba counties now come from Monrovia. According to the Ministry of Commerce, shipping lines still willing to

travel to Liberia are requiring risk insurance for all incoming ships, resulting in increased prices for all imported goods.

Supply of goods has been further constrained by **challenges within the transportation market**. This system was always constrained but has faced increasing issues since August 2014. Monrovia vegetable vendors complained that longer transportation times from the counties were causing loss of perishable goods due to spoilage. There are fewer commercial trucks on the road, partially due to poor road conditions caused by the rainy season and partially due to the decrease in households' purchasing power. The transportation union in Saniquellie, Nimba said that the number of commercial trucks traveling per day from Nimba to Monrovia or other areas generally decreases from eight to 10 in the dry season to four or five in the rainy season, but that the current crisis has reduced the number further to only two trucks. Since the start of the crisis, all trucks must pass checkpoints set up to restrict movement and prevent the spread of Ebola. Trucks are also not allowed to travel during curfew hours. The results of these challenges is that if a truck previously brought vegetables to Monrovia in one day, it may now take two to three days to travel the same distance, reducing the quality of perishable goods upon arrival.

Ebola-related **restrictions are also affecting the agricultural sector**. Rice harvests this year are expected to decline slightly because of disruptions to the local labor system, called *kuu*. Under this system, large groups of farmers exchange labor or pay for work on one another's land; in groups as large as 50 people they travel in turn to each farmer's land to complete agriculture work. To avoid gathering in large groups, as advised by the GoL, the number of people in *kuus* declined to five to 10 people at the height of the crisis in August. With these reduced numbers, maintenance and fencing was not completed this rainy season as regularly as before, potentially causing a reduction in upcoming yields of 10-25% for upland rice. This also affected planting for lowland rice after the state of emergency was declared, which will likely result in rice yields that are lower by up to 25-50%.¹ Furthermore, the uncertainty of how long the Ebola crisis and restrictions will last has led farmers to hoard seeds and harvests. There are some reports of farmers consuming seeds, and there has been an increase in price and some shortages for necessary agricultural inputs for vegetable planting in November-January and the next rice planting season in April-May 2015.

Recommendations

The assessment shows that the Ebola crisis and its resulting restrictions are putting a strain on the supply of goods in the market and an even greater one on the power of households to purchase the goods that are available. If attention is not paid to the economic impact of the crisis the situation will continue to deteriorate over the coming months, with some households reaching critical levels by April/May 2015. Households involved in agriculture will be better off than market-dependent households initially, especially in the next three-four months as harvests continue and agriculture households can consume their production. Without changes soon to current restrictions the negative economic impact will grow, making economic recovery more difficult. Some opportunities which Mercy Corps should support to lessen the economic impact are listed below. All of these recommendations should, of course, be implemented in consultation with health authorities to ensure public health and safety.

- » Increase households' access to food via cash transfer programming or in-kind distributions if market access continues to be restricted;

¹ 25% yield reductions in low-land rice are estimates provided by FED staff, prior to having monitoring information to validate this information. Higher numbers were reported by the Ministry of Agriculture in Nimba. Mercy Corps estimates losses on the lower end of the reported ranges based on information gathered during the assessment.

- » Increase income-generating activities for the most vulnerable households;
- » Improve the transportation market, including, but not limited to, infrastructure and quantity of trucks and ability to travel;
- » Open some land borders, with limitations and tight monitoring to prevent the spread of Ebola, to allow food staples and other essential goods into Liberia between counties and from neighboring countries; and
- » Assist farmers in accessing agricultural inputs for the upcoming planting seasons.

It is important to note that although the demand for goods is currently lower than the available supply, if significant additional demand is created through humanitarian assistance programs, especially programs disbursing cash or vouchers, the current supply constraints will quickly hinder households' purchasing ability, leading to price inflation and shortages. Therefore, any cash transfer or in-kind distribution programs should include close market monitoring and reducing supply constraints as well.

The state of emergency declared in early August 2014 is currently scheduled to end on November 6, 2014. If some of the restrictions on movement are lifted at that time and the border closures end, supply constraints should ease making cash transfer programming more viable in all locations rather than in-kind distributions. However, markets should still be carefully monitored throughout the programming.

Introduction

OVERVIEW

Since the outbreak started in February 2014, Ebola has wreaked havoc across three West African nations. Liberia is currently the nation most severely affected by the crisis, suffering over half of all cumulative confirmed, probable and suspected cases reported (6,267, with 2,106 deaths as of October 25, 2014).² Having originally arrived through the porous border with neighboring Guinea, Ebola has spread from rural Lofa County to reach every one of Liberia's 15 counties including the capital city, Monrovia. This has created the most serious Ebola virus disease epidemic in history, which not only directly threatens the lives of tens of thousands of people, but jeopardizes the economic progress and stability Liberia has achieved since a protracted civil war ended a decade ago. As Defense Minister Brownie Samukai explained, "Liberia is facing a serious threat to its national existence."³

Currently, the major efforts of the Government of Liberia (GoL) and the international community are focused solely on Ebola containment and prevention until the epidemic is under control. However, some of the protocols deemed necessary for Ebola containment have unanticipated ripple effects that create additional burdens on Liberian households resulting in strains on market supply chains and household incomes and expenditures; and could potentially have a catastrophic impact on the Liberian economy.

Background

The GoL and local authorities in the counties have enacted certain restrictions on freedom of movement in an attempt to contain the Ebola outbreak and reduce the exposure of uninfected people. In early August, President Ellen Johnson Sirleaf declared a state of emergency in Liberia. Later in the month the President announced a curfew restricting travel from 9pm – 6am (the curfew has since been altered to 11pm-6am) and closed the borders with Guinea, Sierra Leone and Ivory Coast to all movement of goods and people. Most communities have weekly markets attended by local farmers and vendors, as well as vendors/wholesalers from Monrovia and other counties. Weekly markets close to the borders were previously also frequented by vendors and wholesalers from Guinea, Sierra Leone and Ivory Coast. These weekly markets were cancelled in all locations throughout Lofa and Nimba starting in August in order to prevent the further spread of Ebola.

With borders closed, all imported goods have switched to arriving via ship. There are four ports in Liberia, two of which accept international cargo (Monrovia and Buchanan). Ports have remained open throughout the crisis. The maximum capacity of the port depends on the types of ships entering the port. The Monrovia port, which currently handles food imports, can handle up to three large cargo vessels at a time, and the Buchanan port can handle one vessel at a time. The biggest constraint on importing food into the country is that large vessels carrying rice may spend up to two weeks in the port. The Port Authority estimates that, in the highest import months (dry season), just two of these large vessels enter the Monrovia port each month to fill local rice demand. While overall volumes of traffic at the port have increased from quarter three in 2013 to quarter three in 2014, port traffic decreased from quarter two to quarter three 2014. This decrease seems to be attributable to seasonality.

² Liberia Ebola Outbreak: Situation Report No. 7 <http://reliefweb.int/report/liberia/liberia-ebola-outbreak-office-resident-coordinator-situation-report-no-7-20-26> [retrieved 3 November 2014].

³ Reuters (2014) <http://www.reuters.com/article/2014/09/09/health-ebola-un-idUSL1NORA1NA20140909> [retrieved 01 October 2014].

Though the World Health Organization (WHO) has advised against international travel restrictions, most airlines have ceased flights into Monrovia with the notable exceptions of Brussels Airlines and Royal Air Maroc,⁴ although these flights are becoming increasingly infrequent. This is making travel for humanitarian and health care workers difficult. These difficulties are compounded by the already limited capacity of the Monrovia airport, which is only able to handle the intake of one flight at a time, delaying cargo arrivals and requiring increased coordination among humanitarian organizations shipping in supplies. Transportation of these goods up-country has also been delayed and limited due to road conditions.⁵

Methodology

ASSESSMENT OBJECTIVE

The primary objective of the assessment was to determine the economic impact of the current Ebola crises on households and markets to inform Mercy Corps' Ebola response programming. For households, the focus was on changes in income, food security and access to basic goods. For markets, the focus was on changes in supply and demand of basic goods, such as food, hygiene products and agricultural inputs. The beginning of August 2014 was used as the crisis onset when asking respondents "before and since the crisis" questions. This was when the GoL declared a state of emergency and implemented more strict protocols for combating the spread of Ebola.

Eight Mercy Corps staff conducted the assessment from October 3 – 13, 2014⁶ in Lofa and Nimba counties and two communities in Monrovia: Chicken Soup Factory and Soul Clinic.⁷ Montserrado (where Monrovia is located) and Lofa counties were selected for the assessment because they are two of the most affected counties in Liberia. Nimba was chosen due to an increase of Ebola cases within the weeks leading up to the study.⁸

Household Surveys

Household surveys were conducted with a total of 122 respondents in Lofa, Nimba and Montserrado. The exact breakdown can be found in Table 1. Data was collected using ODK Collect on tablets. Respondents were asked about income sources, changes in income and expenditures, agriculture, eating habits and coping strategies. Household level data was collected in four districts of Lofa and Nimba respectively, from two communities in each selected district. In order to best target market-dependent households, communities selected were located at a driving distance of between 20 minutes-1.5 hours from the capital towns in each district, each located on main roads or with clear road access to main roads (those connecting capital towns in each district). The survey team was instructed on a field-based method of random sampling to identify respondent households in the communities visited. The findings of this assessment should not be assumed to be representative of the general population. Rather, they stand as a snapshot of households in the market-dependent communities visited.

Vendor Surveys

Vendor surveys were conducted with traders in local markets using purposive sampling to identify vendors of a variety of sizes and products sold, with a focus on sellers of basic goods, such as food, oil, hygiene items, meat/fish, agricultural inputs, clothing, etc. The markets selected for the surveys were central markets in each county and district as well as community-based markets in communities containing markets. This methodology

⁴ Washington Post (2014) http://www.washingtonpost.com/national/health-science/2014/08/19/83da2974-26f2-11e4-8593-da634b334390_story.html [retrieved 22 October 2014].

⁵ Liberia Ebola Outbreak: Situation Report No. 7
[http://www.unliberia.org/doc/SitRep%202026%20October%20\(3\).pdf](http://www.unliberia.org/doc/SitRep%202026%20October%20(3).pdf)

⁶ Key informant interviews were held through October 28, 2014.

⁷ In Monrovia, many neighborhoods are named based on landmarks and historical reputations.

⁸ The exact locations in each county can be found in Annex 1.

was used in order to get a picture of market operations in both central and periphery locations. Data collected from vendors included change in income, change in sourcing for supply chain, ability to resupply, income levels, change in items sold, vendor willingness to travel, etc.

Focus Group Discussions

A total of 20 focus group discussions (FGDs) were held in the targeted areas, 14 with households and six with vendors. Depending on the comfort level in each community some discussion groups were held separately with males, females and youth community members, while others were mixed. Questions focused on complementing data collected in the survey related to principal livelihoods and the current state and functioning of markets.

Key Informant Interviews

Sixty-five key informant interviews were carried out with a variety of actors in the communities and at the national level in Monrovia to better understand the movement of goods in country as well as trends with livelihoods. Questions were tailored to the key informants; however the focus of the interviews was trying to meet the overall assessment objective.



Liberia — Alison Hemberger/Mercy Corps 10/14

Table 1
Methodology

	HH Surveys	Vendor Surveys	Focus Group Discussions	Key Informant Interviews
Lofa (est. pop. 276,597) ⁹	37	29	6 HH 3 Vendor	19
Nimba (est. pop. 499,802) ¹⁰	47	36	6 HH 3 Vendor	28
Montserrado (est. pop. 1,172,281) ¹¹	38	57	2 HH	18
TOTAL	122	122	20	65

⁹ The estimated population was calculated by multiplying the population from the 2008 census by the World Bank's estimated population growth rate of 2.4%. http://www.emansion.gov.lr/doc/census_2008provisionalresults.pdf
<http://data.worldbank.org/indicator/SP.POP.GROW/countries/LR?display=graph>

¹⁰ See footnote #8.

¹¹ Ibid

Limitations

Minor adjustments were made to the household and vendor surveys following the first two days of data collection, which had an effect on the number of respondents for certain questions in Lofa. For questions that were revised/added after the first day of data collection, we took the percentage only from the total number of participants who were asked the question, rather than the full 122 households or vendors to avoid skewing the data presented below.



Liberia — Jill Morehead/Mercy Corps 10/14

Survey Analysis

RESULTS

Demographics

A total of 122 household respondents were interviewed, of which 54% were female and 46% male. The respondents ranged in age from 17 to 75 with an average age of 38 years old. The assessment reached a total of 839 individuals represented in the 122 households surveyed (There are an average of 7-8 members per household in Lofa and Nimba and 6 members per households in Monrovia. This is above the national population average of five members per household).

The majority of survey participants (74%) responded that there were children under 5 years old in the household; most of these households had between one and four children under five. There were 33 pregnant or lactating women and 36 individuals over 60 years old. In 75% of households, the main income earner was male, with a corresponding 25% of households having a female main income earner.

Household Food Security and Consumption

Household Income

Due to the Ebola crisis, household incomes have greatly reduced: sixty-six percent of households reported a decrease in household income, 94% of whom said that this decrease was abnormal for the time of year. While the largest median drop was in Monrovia, Nimba County had the largest minimum drop with a 20% decrease. The average decrease in income was nearly 3,000 LD/month.^{12,13} Considering 42% of respondents reported an average household monthly income in the range of 2,001 – 5,000 LD and 37% reported an income above 5,000 LD/month, an average decrease of nearly 3,000 LD/month is very significant. The average maximum drop was half of household income.

¹² At the time of the assessment the exchange rate was 85 Liberian dollars = 1 US dollar.

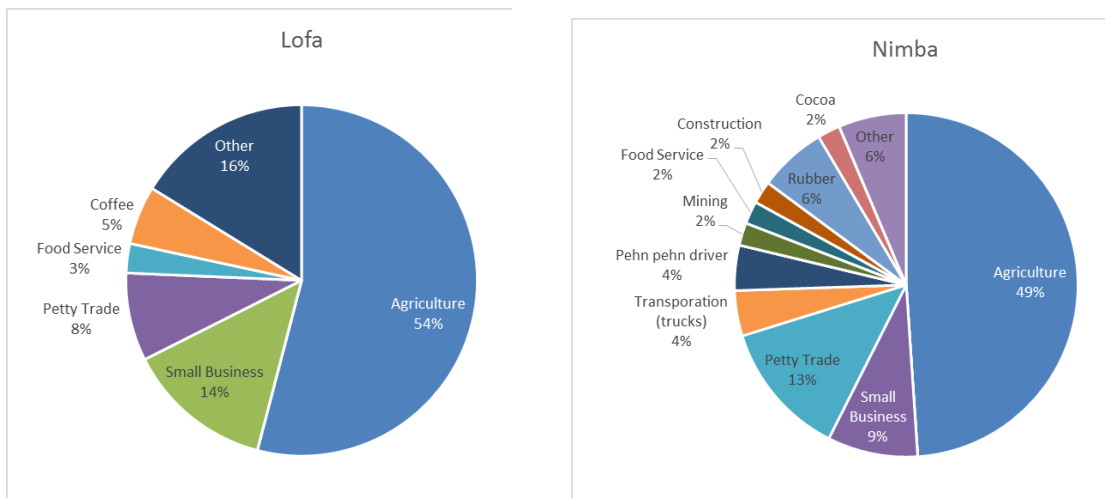
¹³ Because incomes reported were higher for Monrovia, this has skewed the average change in income slightly. Additionally, monthly incomes were recorded using an income range, while changes in incomes were reported in specific amounts.

Table 2
Median Income Change

	Lofa	Nimba	Monrovia	Total
Median Income Range	2,001-5,000 LD	2,001-5,000 LD	5,001-10,000 LD	2,001-5,000 LD
Median Change in Monthly Income Since Start of August ¹⁴	-400 LD	-1000 LD	-1750 LD	-1000 LD
Percentage Change (Max)	-20%	-50%	-35%	-50%
Percentage Change (Min)	-8%	-20%	-18%	-20%

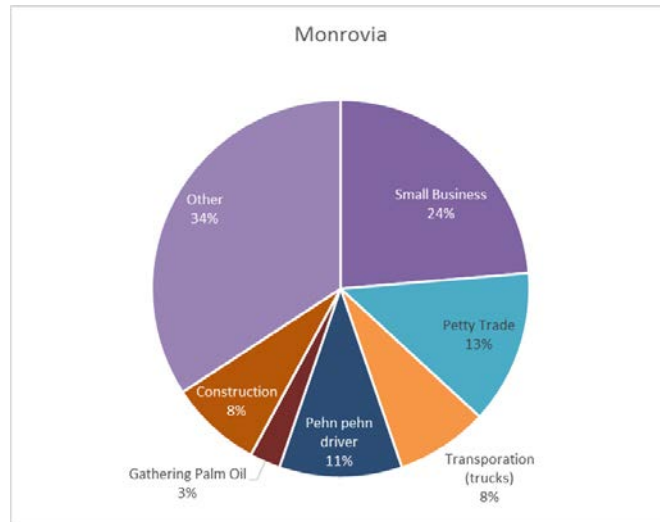
Twenty-four percent of households interviewed reported not currently participating in any income generating activities at all, whereas the next three most cited income activities, in order, were agriculture, petty trade and small business. In Lofa and Nimba counties, half of all respondents reported their main income source as agriculture, whereas in Monrovia, the main income sources listed were professional jobs, technical jobs,¹⁵ small business and petty trade.

Graphs 1-3
Main sources of Income



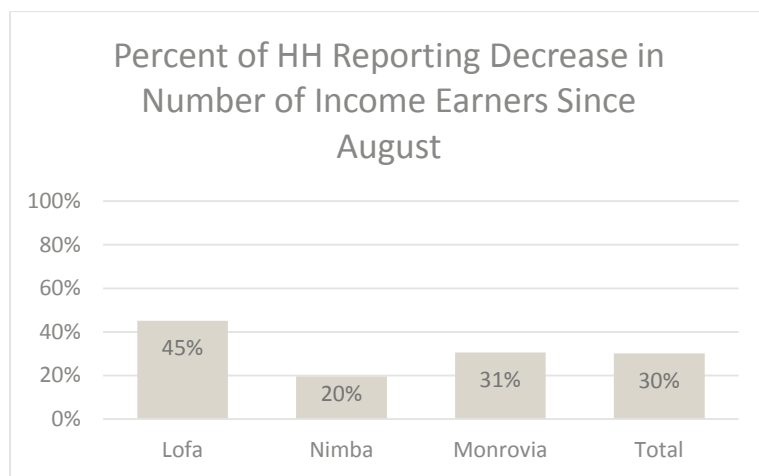
¹⁴ Median income is used as the measure of center here to best represent the average change in income experienced by households because it is not affected by skews and outliers in the distribution of incomes and change in incomes.

¹⁵ Of jobs reported as "Other," half were listed as professional jobs, such as government or social worker and nearly half were listed as technical jobs such as contractor or mechanic.



Some households have lost their main income earners due to the disease or to the protocols put in place to combat the disease. For instance, one such protocol was the closure of schools, and while government teachers continue to earn their salary during the moratorium, private school teachers do not. Of the 122 households surveyed, 30% reported a decrease in the number of people working, with Lofa County reporting a significantly higher percentage than either Nimba County or Monrovia (Graph 4).

Graph 4
Decrease in Number of Income Earners



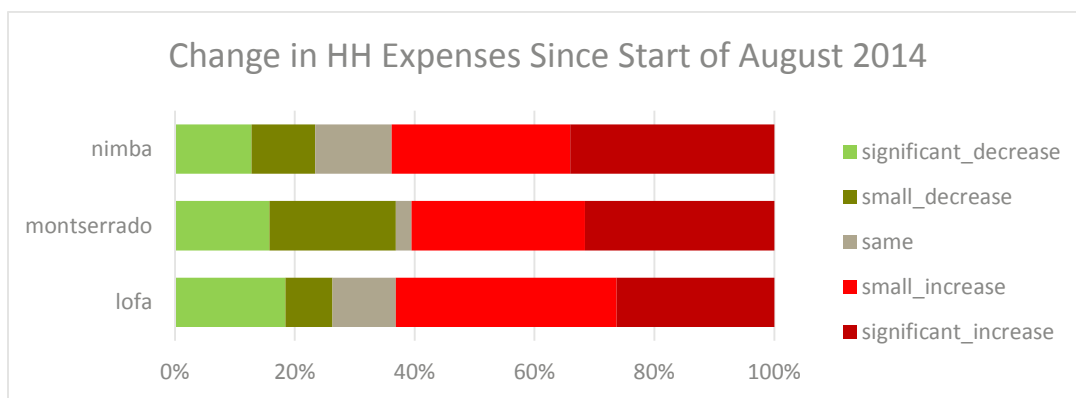
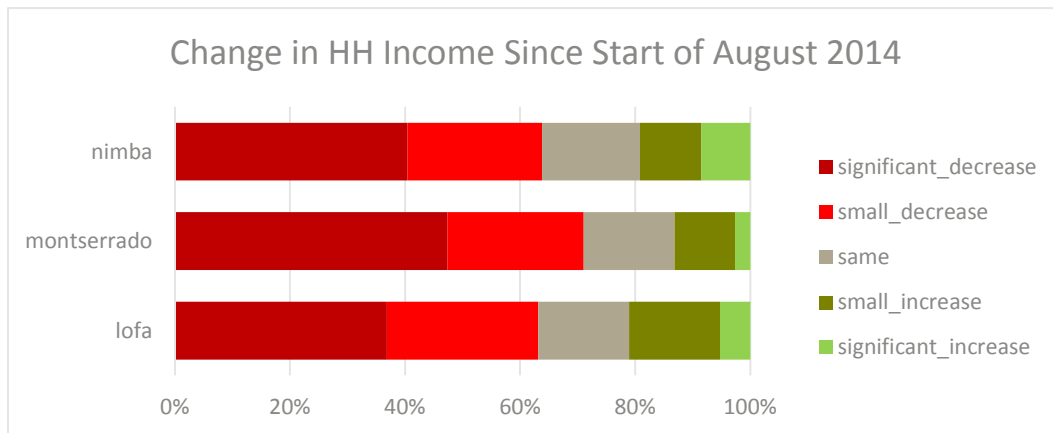
The interviews and focus groups illustrated that the Ebola outbreak and its related political, social and economic implications have had a widespread negative impact on household income; however, effects are particularly acute for agricultural households relying on markets for income and small businesses in Nimba and Lofa, as well as small businesses and service workers in Monrovia. Half of the respondents reported a change to their main source of income, and 33% of those reported their main source of income had ended (16% of all respondents). Half of those reporting that their main source of income had ended said they had not replaced this income with another source (8% of all respondents). Some of the key reasons mentioned in focus groups for loss of main income source included reduction in employment (particularly related to contract work), loss of working capital for businesses involving trade and business stoppage due to government policies. Focus groups also brought up

the issue that agricultural labor has been reduced in cases where casual laborers or contractors work in locations outside their home communities. In these cases, regulations preventing visitors from staying overnight in communities other than their own has reduced the availability of labor and access to work. Interestingly, when asked about their priorities, “freedom of movement” was listed in the top five and listed more often by respondents in Monrovia than Lofa and Nimba counties, but was mentioned in all three locations and by both sexes.

Household expenses

At the same time that households are experiencing a significant decline in income, 63% of households also reported increased expenses since the state of emergency was declared in August, 31% of whom reported a “significant increase.” You can see the comparison of loss of income and increase in expenses in the graphs below. The percentages of respondents reporting decreases in incomes and increases in expenses are highlighted in red.

Graphs 5 & 6
Change in HH Income and Expenses



Of the 113 households reporting a change in expenses (either an increase or decrease), 96% said this change was not normal for the assessment period (therefore, not based on seasonality). Prior to the current crisis, markets in Lofa and Nimba counties relied heavily on cross-border trade with Guinea, Sierra Leone and Ivory Coast. Since the borders were closed in August, cross-border trade has almost completely ceased (aside from a small amount of smuggling), shifting all imports to a single source, Monrovia, and significantly impacting supply chains. Shifting the main source of all goods to Monrovia has increased prices in the counties, primarily because

previous sources in Guinea, Sierra Leone and Ivory Coast were cheaper and because the cost of transportation from the capital city to the counties is more expensive.¹⁶

The reduction in purchasing power is forcing households to rely on coping mechanisms and to prioritize purchases of basic goods. When asked about priorities, households listed their top three urgent needs, in order, as 1) Food, 2) Healthcare and 3) Clothing. Food and healthcare were selected first when looking at the data both by county and sex. For the third priority, more women selected healthcare again than any other category, followed closely by food and soap, whereas men mentioned clothing, healthcare again and disinfectant in almost equal measure for their third priority. Of those listing food as their top priority, 89% listed rice, 75% listed oil and 21% listed beans. Prices for palm oil spiked at the start of the crisis in August, but appear to have returned to pre-crisis levels. According to several key informant interviews in Nimba and Monrovia, the price of a 25 kg bag of imported rice¹⁷ has increased approximately 25-35% (from 1,300-1,400 LD to 1,750 LD) during the assessment period. Building Markets has been monitoring prices during the crisis and puts this figure somewhat lower at a 15% increase in Lofa and Nimba the week of September 23rd, with these numbers declining to a 12% increase the second week in October.¹⁸

Table 3
Median Expense Change

	Lofa	Nimba	Monrovia	Overall
Median Expense Range (Pre-August)	1,001-2,000 LD	2,001-5,000 LD	2,001-5,000 LD	2,001-5,000 LD
Median Change in Monthly Expenses Since Start of August	1000 LD	500 LD ¹⁹	1650 LD	1000 LD
Percentage Change (Max)	100%	25%	82%	50%
Percentage Change (Min)	50%	10%	33%	20%

Typically, during crises, households increase their reliance on credit and Liberia is no exception, with 77% of households reporting borrowing money. Of the 77% of households borrowing money, 64% say this is not normal for this time of year. Seventy-five percent of households that reported borrowing money in situations that were “not normal for this time of year” are using it for household expenses, 13% for livelihoods and 8% for medical expenses. Half of the households borrowing money in Lofa and Nimba counties borrowed money from friends, while just over half of the households borrowing money in Monrovia borrowed from savings groups. Key informant interviews also revealed that group savings activities are declining; one market vendor and electricity provider in Ganta, Nimba reported that his daily saving *susu* (revolving savings and credit group) was normally attended by 64 people, and since August has declined to 16.

¹⁶ More details in the *Impact on Market Systems* section.

¹⁷ Monrovia imports approximately 56% of their rice according to the FEWSNET Guinea, Liberia and Sierra Leone Special Report from September 8, 2014, pg. 2.

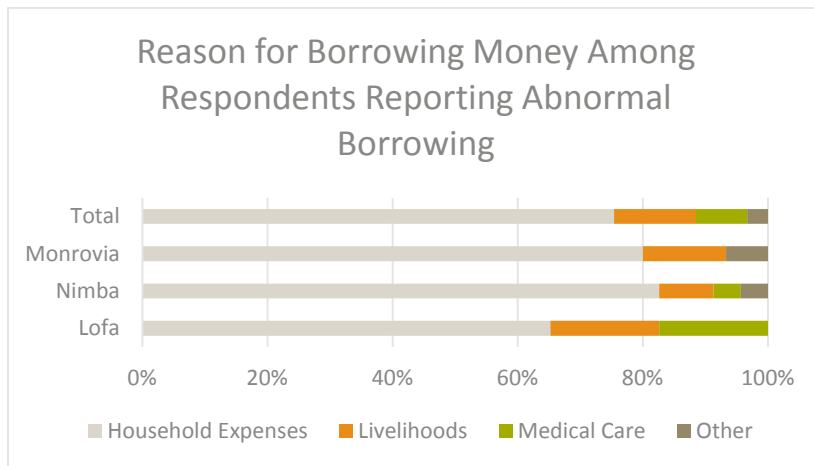
¹⁸ Building Markets Price Trend Analysis, September 2nd-October 17th, 2014.

¹⁹ This change is much lower in Nimba. This could be because of closer proximity to Monrovia or access to more locally grown produce, or there may be another reason.

Table 4
Borrowing Patterns: Normal or Abnormal

Normal Borrowing Patterns: Borrowing Behavior Normal for This Time of Year?				
	Lofa	Nimba	Monrovia	Total
Normal	26%	38%	44%	36%
Not Normal	74%	62%	56%	64%

Graph 7
Reason for Borrowing Money

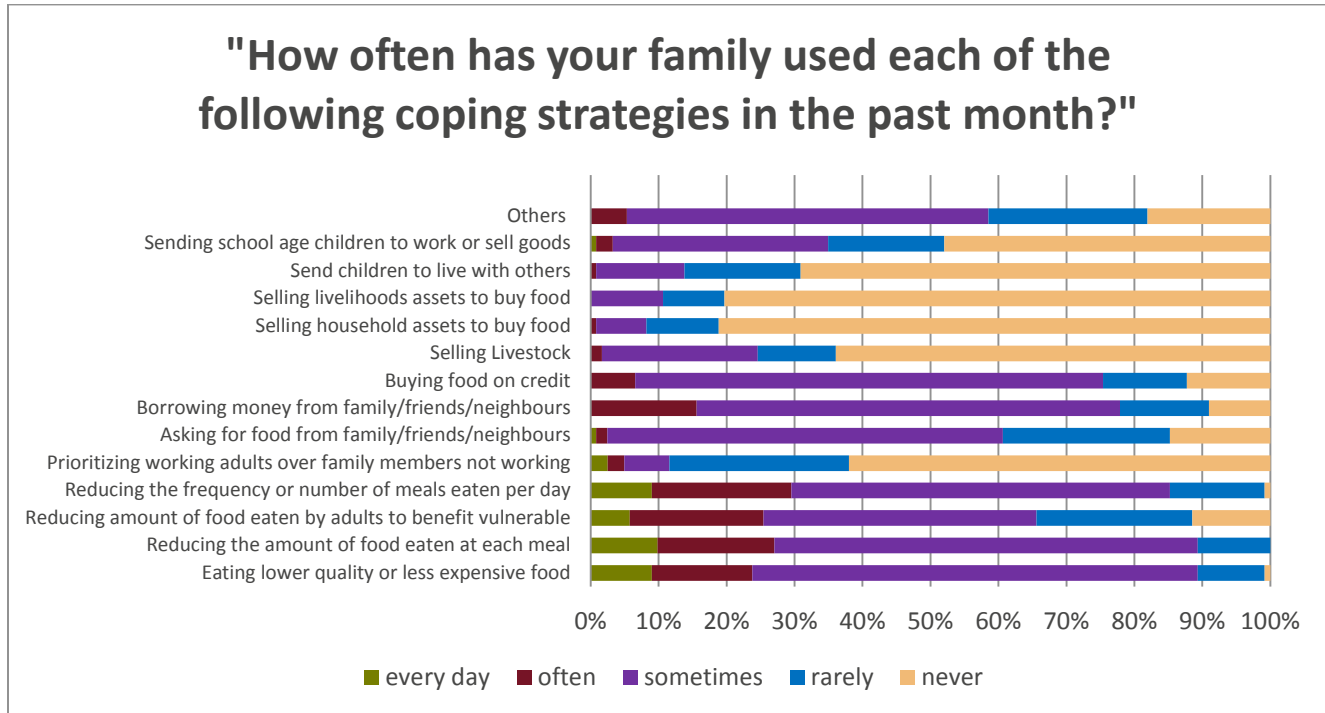


Consumption Patterns and Access to Markets

Household consumption patterns have changed as households have less access to income at a time when prices of goods are higher than usual. The comparison of coping strategies below highlights the state of the current crisis. The most commonly used coping mechanism is reducing the amount of food eaten at each meal with nearly 90% of households using this, followed by nearly 90% of households eating lower quality or less expensive food and nearly 85% of households eating fewer meals each day than previously. Families in Lofa and Nimba often switch from eating rice to cassava in the lean season²⁰; however, qualitatively, few households reported resorting to this substitution at the point the assessment was carried out, which suggests the food security situation, while stressed, is not yet critical. Borrowing money from family/friends/neighbors and buying food on credit were also used by most households surveyed. Few households reported selling livelihood and/or household assets, an indication that some of the longer-term effects of the crisis could be mitigated if options for replacing income become available quickly.

²⁰ Cassava is both produced and eaten more in Nimba than Lofa.

Graph 8
HH Coping Strategies²¹



Households are no longer eating certain kinds of bush meat, a key source of protein, because of Ebola transmission concerns. Beans and peanuts were the primary alternate sources of protein, but because these come from Guinea, supply has been limited. Therefore, households have increased their consumption of frozen meats, mostly chicken and fish coming imported through Monrovia (some fish is sourced locally, but imports from countries such as Sierra Leone are significant), which has led to price increases for these products. The lack of electricity and cold storage also constrains supply in cases where transport of goods takes longer. Spoilage is an increased risk as well; a lead fish vendor in Kolahun district of Lofa reported her stock had spoiled in August as a result of delays on the road from Monrovia. According to the Ministry of Commerce in Lofa County, the price of frozen chicken has increased from 225-250 LD to 275-300 LD. Prices on fish were unavailable at the time of the assessment, other than qualitative information reporting a price increase.

With the shift in importing goods overland from Guinea and Ivory Coast to shipping through Monrovia, household costs have increased significantly. Prices in Monrovia were historically higher than those in Guinea, Sierra Leone and Ivory Coast, but due to the stress put on markets from the current Ebola crisis, there has been an overall increase of 17% for basic commodities²² in all three areas of Liberia. In addition, the cost of transporting goods has increased significantly for vendors in Lofa and Nimba now that everything must come by road from Monrovia. One vendor in Foya said she was previously able to make a trip to Guinea to purchase goods for her shop for 2,000 LD and now she pays 5,000 LD for the trip into Monrovia to pick up goods. These costs are then passed on to consumers through increased daily market prices.

²¹ Values did not show a substantial patterned difference between counties.

²² Liberia Ebola Outbreak Situation Report No. 6: <http://reliefweb.int/sites/reliefweb.int/files/resources/SitRep%2013-19%20October%20Final.pdf> (pg. 9).

Anecdotally, market vendors reported that households have shifted their purchasing, such as from clothing to food. Vendors are trying to shift what they sell in order to meet the changed demand, but the overall reduction in demand for goods in the market has resulted in less business for vendors. Households are also purchasing food more frequently but in smaller quantities. While households surveyed described difficulty in finding goods in the market, prices were a greater challenge than availability. Of the households surveyed, 72% said that there were not any goods that were unavailable in the market at the time of the assessment, while 28% overall mentioned a few items that could no longer be found, mostly in Lofa and Nimba counties. While listed in only a few cases, fish and dried meat were most frequently cited as unavailable. These shortages are most likely a result of reductions in bush meat hunting and sales in order to prevent the spread of Ebola. The assessment team saw fish in all markets, so the reports of shortages of fish may be regarding dried fish that used to be imported from across the border. In the Kahnple market, dried fish was available in the market and, when asked, vendors said it had been made locally since it was no longer available from Ivory Coast due to border closures.

In addition to commodity price increases, it is now more expensive for people to access markets. Previously, most towns had weekly markets where farmers, wholesalers, retailers and consumers all converged in large numbers. However, in order to avoid large gatherings of people there is currently a moratorium on weekly markets²³ that has reduced people's access to goods, requiring them to travel to larger daily markets in nearby towns to purchase goods now unavailable locally. Most people travel via motorbike or taxi; only a few go in commercial trucks or other vehicles. To limit contact, taxis are no longer allowed to take more than four passengers, as opposed to the six passengers that was previously the norm. This means the cost of a trip is now divided among fewer passengers, increasing the per person cost of each trip. For instance, the per passenger price of a taxi from the Nimba capital of Saniquellie to Monrovia has increased from 1,250 LD to 1,750 LD per person. The cost from Saniquellie to Ganta, a main regional market town, has increased from 250 LD to 375 LD per person. Similarly, the cost of a motorbike taxi from Zogowee to Saniquellie, Nimba was previously 100 LD per person because they used to carry 3 people. Now, motorbikes are only allowed to take one person and they have increased the price to 150-200 LD.

Reduced income and increased prices have resulted in a drastic reduction in household purchasing power. The next section deals with the impact of the current crisis on markets; however, the majority of vendors spoken to complained of reduced demand for goods in spite of constraints on the supply of goods in the market. Households are currently able to cope with the situation through borrowing and reducing the amount of food eaten daily, but if nothing changes over the next several months, key informant interviews indicate food security will reach critical levels by April/May 2015, which is the start of the lean season.

Impact on Markets

The above section highlights the effects of the Ebola outbreak on households and gives a current-state picture of the markets which support household incomes and consumption. However, the state of the emergency in Liberia is quickly evolving. While it is difficult to predict when households will move from coping strategies to recovering their livelihoods and incomes, we can build an understanding of the factors currently constraining economic activity and work now to address some of those constraints. Such an exercise lays a foundation for determining the direction and magnitude of the crisis as well as appropriate responses to support household food security and incomes.

Impact on Market Vendors

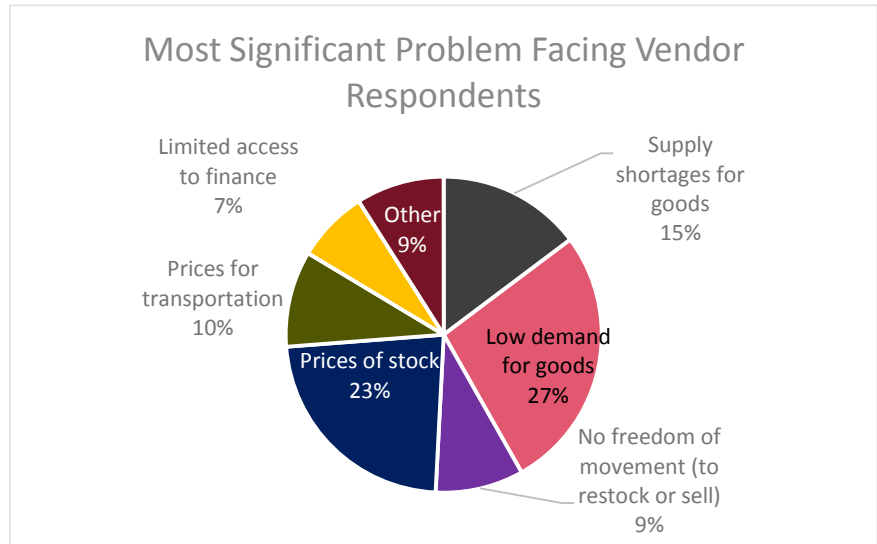
Surveys, focus groups and vendor interviews give a clear indication of the current economic slowdown. Fifty percent of vendors interviewed reported that they have changed their sources for purchasing goods due to

²³ Most markets have been closed, but some towns continue to hold weekly markets only for locals.

border closures or other restrictions on operations and movements within Liberia. Thirty-two percent of vendors reported reducing their business hours, with an average reduction in hours of 1.6 hours per day. This trend was consistent across the three counties studied. Key reasons listed for reduced hours were linked to either curfew restrictions or a lack of customers.

Vendors also estimated an average 52% reduction in the number of customers they serve per day. Likewise, the most commonly listed most significant problem faced by businesses was a “low demand for goods.” In some cases vendors have adjusted the goods they sell due to changes in availability of goods and demand. In one focus group, two out of five vendors had shifted the good they sold; one woman had stopped selling foodstuffs to take advantage of the opportunity to sell medicines and another had stopped selling clothes in order to sell peppers, a product she knows households will continue to purchase. These reports correspond with significant drops in sales: the median daily sales range reported by market vendors reduced from 4,001-5,000 LD to 1,000-1,200 LD from the end of July to mid-October. Market vendors reported they had adopted coping strategies to deal with the drop in sales; one woman in Monrovia noted that she and her eight children have reduced their consumption of rice from 10 to eight cups per day.

Graph 9
Problems for Vendors



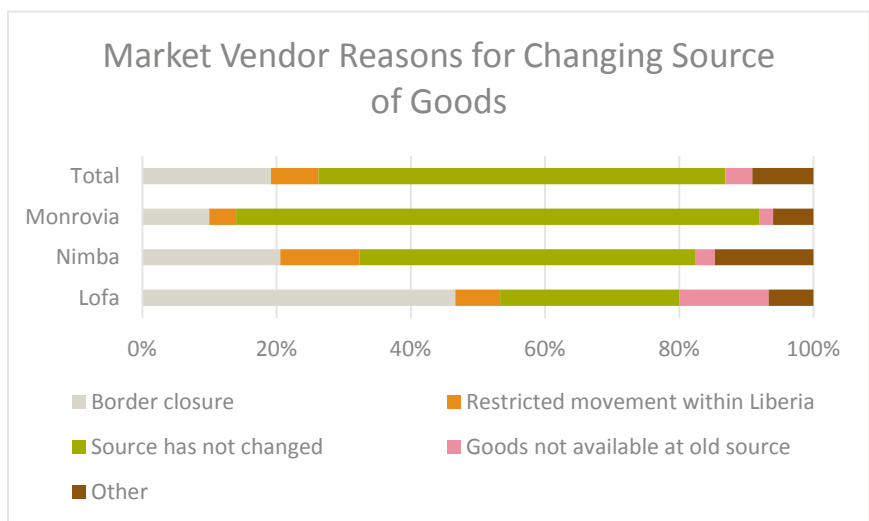
Constraints and Blockages in Market System

This section explores the major constraints currently preventing markets from functioning in Lofa, Nimba and Monrovia.

Border Closures

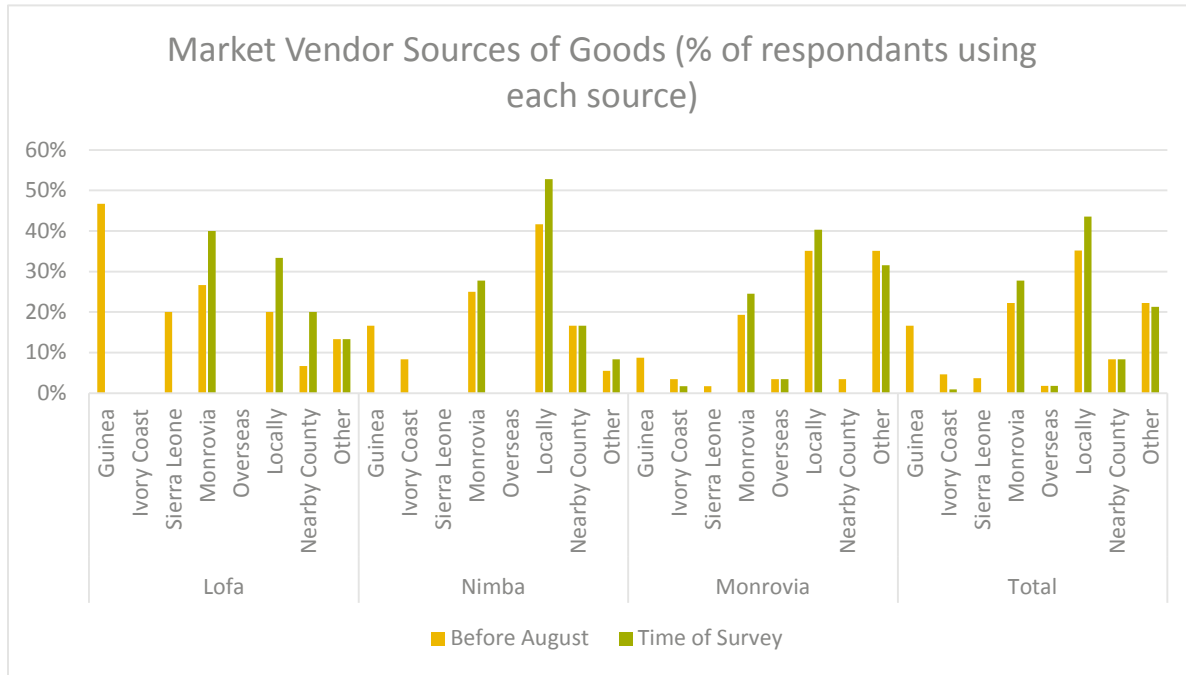
In August 2014, the Government of Liberia closed the borders between Liberia and Sierra Leone, Guinea and Ivory Coast in an effort to prevent the spread of Ebola. This protocol resulted in approximately 50% of vendors surveyed shifting where they sourced their goods. Many goods available “locally” are brought from Monrovia, unless they are grown in the area, such as perishable goods like peppers, bananas and vegetables and some rice. Products noted in focus groups as those most significantly affected by the border closures included peppers, beans and groundnuts. Agriculture inputs in Lofa and Nimba were also most commonly imported from Guinea prior to the border closure. In cases where goods are now sourced from Monrovia instead of through cross-border trade, prices have increased to reflect the higher cost of transport and supply has reduced. Goods are no longer coming across the border at all, with the potential

Graph: 10
Reason for Changing Source



exception of cattle from Guinea. Reports regarding smuggling ranged, but most said that smuggling wasn't happening at all and one or two said there was a very small amount of smuggling happening. For all intents and purposes, almost all non-perishable goods in the counties are now coming from Monrovia.

Graph 11
Source of Goods



Market Closures

In towns and communities throughout Lofa and Nimba, there are both daily markets and weekly markets. Daily markets are typically reserved for local trade from community members and people nearby. These are largely viewed as retail markets. In addition, set weekly market days will occur in most of these same locations. On these days, vendors and transporters arrive from outside of the area to sell/purchase goods to/from local farmers and retailers. These markets involve higher levels of wholesale activity and are the primary day when trucks arrive in markets to transport goods across the border, to Monrovia and to other counties.

In an effort to prevent the spread of Ebola, these weekly markets have been closed in order to prevent large gatherings of people, including people from many different locations. Compliance with this policy has been widespread (although markets still happen on a smaller scale), as signaled by reductions in the number of vendors and number of trucks selling on these days. Transporters still attend some weekly markets to gather goods to take to Monrovia, but the number of transporters is reduced. There is additional information on transportation in the next section. Local leaders in Kolahun and Zorzor districts in Lofa County noted that the fear of vendors of being turned away or having goods confiscated on banned market days has been a strong driver of compliance. Police have maintained an active and visible presence in enforcing the policy of no market days since it was instituted. As a result, market vendors and key informants report that there has been an uptick in trade and consumption of locally produced goods as compared to those goods which come in from other countries, counties and Monrovia. In larger towns, there are signs that daily markets have grown slightly to compensate for the loss of concentrated business on market days, but there has been a marked net decrease in traders' total weekly volume of business overall.

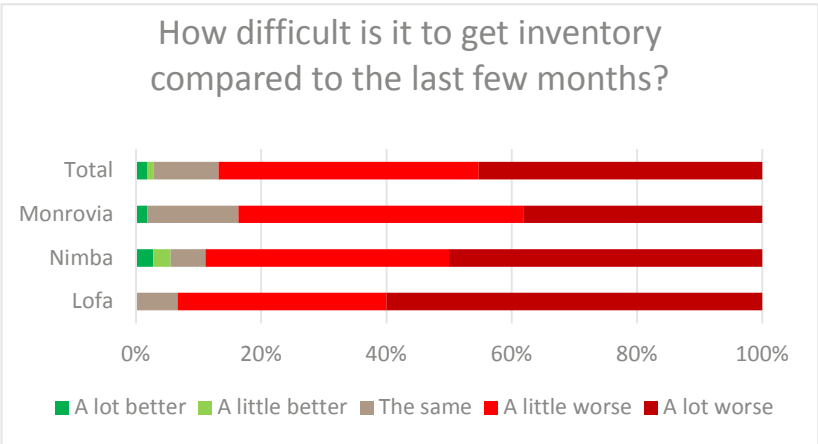
For example, one rice vendor in Sacleapea, Nimba, used to sell in the weekly market as well as his shop in town. His regular purchase of 450 bags of rice per month from Monrovia reduced to 350 in September and 250 in October to accommodate the reduction in demand—in a typical year he would experience the highest monthly sales in June-October. He noted that while the daily sales in his store have increased by 50%, his overall business has still declined significantly as a result of market day cancellations (by 22%-44% according to his reported stock purchases). One retailer in Voinjama, Lofa, said that it is more difficult to get vegetables to sell now compared to before the closures because more retailers are now looking to purchase locally and, at the same time, farmers are coming into town to sell their produce less frequently, resulting in fewer opportunities to trade. Anecdotally, this same retailer also noted that a fear of Ebola affects business; when retailers crowd around farmers arriving to sell their goods she is too afraid to stand in the crowd close to others so she will only buy from farmers she knows well and she calls them directly when she needs more produce.

The price of goods for consumers in markets is also directly influenced by the closure of market days. Because weekly market days function, in part, as wholesale markets, prices may be lower for customers purchasing on these days. Without functioning weekly markets, it becomes more difficult to purchase goods at wholesale prices and quantities, and the cost of goods increases to standard daily retail prices which would not be captured through standard price monitoring systems.²⁴ Such increases in household costs affect consumer purchases at weekly markets. This dynamic is also relevant for traders who purchase in regional markets on market days in order to resell in more rural areas (or micro-retail markets). A 2011 study led by the Ministry of Agriculture (with UN and NGO partners), noted that 80% of Liberian households rely on micro-retail markets rather than central markets for their household consumption needs.²⁵ These households will likely experience localized price increases because the traders in their markets are less able to access goods at wholesale prices.²⁶

Transportation

Border closures, restrictions on market operations and reduced consumer demand have all contributed to an increase in transportation costs and a reduction in the number of vehicles transporting goods, particularly across borders and between Monrovia and counties up-country. Regulations limiting the number of passengers in vehicles, the inability of vehicles to travel during curfew hours and delays due to increased roadblocks have also contributed to the cost increases. Weak infrastructure and poor transportation systems have constrained the growth of agriculture markets in Liberia throughout the post-war recovery period and the additional limitations brought by Ebola policies have magnified these barriers to trade. The impact on the volume of traffic has been significant. Based on the number of trucks estimated at each market location where key informant interviews were conducted, there has been a 60% reduction in the supply of goods entering the market on market days (the primary day when goods arrive from outside local

Graph 12
Difficulty Restocking



²⁴ Analysis provided by Yawa Sayba Tamba, Ministry of Agriculture lead on Joint Food Security and Livelihoods Assessment to assess impact of Ebola.

²⁵ Ministry of Agriculture. “Impacts of Rising Food – Fuel Prices and Refugee Influx in Liberia.” Emergency Food Security and Market Assessment, 2011.

²⁶ Ibid. Study cited that price increases between retail and micro-retail markets are on average 10-15%.

areas). Correspondingly, the overall volume of traffic on roads (market and non-market related) has declined. The transport union in Ganta in Nimba County calculated that, comparing business from September 2013 to September 2014, the total value of taxi business travelling out of Ganta (in all directions) had reduced from 260,000 LD to 85,000 LD, representing a 67% decline.²⁷

The volume of goods coming into the country via sea routes has not been impacted as significantly by the crisis. While the total number of ships coming in through the port declined by 13.56% between the second and third quarter of 2014, there was an increase in the number of ships between the third quarter of 2013 and 2014 of 13.95%. Only three ships have come to port or intend to dock in Liberia containing Ebola-related supplies (most supplies come by air due to time pressure). Moreover, to offset potential additional costs to transporters as a result of increased costs of risk insurance (or other costs) the Port Authority has put in place a measure to waive their fee of 0.05 cents per day per ton for rice vessels in order to prevent rice prices from increasing (they've also waived a \$50/vessel fee). The Monrovia port, which currently handles all food items which enter the country, can handle three ships at a time with an average of two-three days per container ship. (Ships which bring rice stay in port up to two weeks, putting an increased burden on port capacity). The port has handled up to 122 ships per quarter, but only reached 98 in the third quarter of 2014. If the demand on the port were to increase, the Port Authority gave an indication that there was still excess capacity to handle additional volume. Also, the Buchanan port has been used in one case during the Ebola crisis to ship in goods meant for locations in the Southeast and could potentially be used for such needs in the future. Therefore, there it is possible to increase the supply of goods coming in through the port, if necessary.

The impact of Ebola policies on transport prices has also been significant. In Liberia, the rainy season is May to October/November and it is normal for prices to increase during this period because of poor road conditions and a reduction in available transportation. According to the Ministry of Commerce in Lofa County, the cost of a 10-tire truck from Monrovia to Voinjama (capital city of Lofa County) costs approximately 700-1,500 LD in the dry season and increases to around 2,000 LD during the rainy season. However, the cost of transportation throughout the July, August and September period fluctuates less as these are consistently the highest months of rainy season weather. From interviews with vendors, government officials, transporters and transport unions, price increases for goods and people (across different types of vehicles) increased from July to late September/early October, with price hikes of up to 100% in some cases. The Ministry of Transport's own assessment of prices charged by taxi drivers indicated that price increases in September were roughly 50%, but had increased up to 100% in October. The Liberia Marketing Association in Voinjama noted that it is getting increasingly difficult to get goods in the rural areas; with less transportation available and at higher prices, truckers are only willing to transport goods from which they can earn the highest profit.

Increased cost of transportation compounded by the closure of markets and borders has led to changes in transportation patterns and, as a result, consumption patterns of households. The Ministry of Transportation noted that while overall volume of transport has declined since the beginning of August, the volume of pehn-pehn (motorbike) business within counties has increased. People looking to transport goods to market can skip price premiums by taking motorbikes (a situation in which volumes of goods naturally prevent price discounts from overloading passengers), and with limited inter-county trade occurring, this mode of transit is a practical option.

Labor

Rice production in Liberia relies on an agricultural labor system called *kuu*. Previously, large groups of farmers would exchange labor on one another's land; in groups as large as 50, they would travel in turn to each farmer's

²⁷ A portion of this change could be attributed to fuel prices, but this is balanced by increases in transport prices due to lower passenger limits in vehicles.

land to complete agriculture work. This group labor practice is used across many types of agriculture but is particularly important for lowland rice production. As part of its Ebola control strategy, the Government of Liberia has advised against congregating in groups and recommended avoiding contact with other people. There have been some reports of *kuus* no longer functioning but the majority of people interviewed in both Lofa and Nimba counties reported that people are still participating in *kuu*, just not to the extent they did before – *kuus* reportedly now have only five to 10 people in them,²⁸ with a corresponding lack of productive capacity. This affected routine maintenance in the current rice season, such as fencing and weeding and is expected to impact yields in both lowland rice and, to a lesser extent, upland rice.

Table 5
Kuu Participation

If you usually work in a <i>kuu</i> , do you plan to work in a <i>kuu</i> this harvest season?			
	Lofa	Nimba	Average
No	4.5%	21%	14%
Not Sure	4.5%	6%	5%
Yes	91%	74%	80%

The expected impact on yields for upland rice and lowland rice are still somewhat unclear, but best estimates from key informants predict 10-25% losses in upland rice and 25-50% losses in the next lowland rice harvest.²⁹

Implications for Agriculture Value-Chains

Input Supply

Agricultural inputs used in Lofa and Nimba were typically imported from Guinea and Ivory Coast prior to the border closure. As a result, vendors who have continued to sell fertilizer, seeds, herbicides, pesticides and other tools are experiencing supply shortages. Retailers who have restocked these inputs since the beginning of August are sourcing primarily from Monrovia, but costs have increased as a result of increased transportation (there are a limited number of input retailers who note that as of October they have begun smuggling goods across the Guinean border). The amount of smuggling is unclear, but the impression given was that it is minimal. With these increased costs and pressure on household incomes/spending, input sales have declined. The lead input supplier in Ganta noted that in October of last year her average transaction size was between 700-1,000 LD and this year is currently 100 LD. She also reported that September sales in 2013 were 45,000 LD compared to 5,000 LD in 2014. The cost of transporting a bag of fertilizer increased from 400-500 LD to 1,500 LD since the start of August. She is now selling a bag of fertilizer at 6,000 LD instead of 5,500 LD, representing a 9% increase in price (with this input retailer taking a reduction in profit herself). It is important to note that, in each district visited, few input retailers exist (the market for inputs was small in Liberia prior to the crisis). There is a long-term need, pre-dating the current crisis, to promote improved marketing of inputs to farmers and improve the

²⁸ The figure of five to 10 people per *kuu* group was provided by key informant interviews based on the height of the crisis from August to September; however, based on the numbers in Table 5, more people than was reported during the assessment period are participating in the *kuu* system as fears have calmed.

²⁹ Informal estimates provided by USAID-funded FED program and Ministry of Agriculture in Nimba. Mercy Corps estimates losses on the lower end of this range (10% for upland and 25% for lowland) based on information gathered.

sourcing and supply of inputs to agriculturally focused counties such as Nimba and Lofa; however the current crisis threatens what little market-based access to inputs does exist in these counties.³⁰

The input supply challenges are also impacting farmers. According to key informant interviews in Nimba, farmers are reducing the purchase of agricultural inputs such as tools because of the increased prices. They are also consuming seed stock rather than saving for planting. Furthermore, the uncertainty of how long the Ebola crisis and restrictions will last has led farmers to hoard harvests for consumption rather than selling even a portion of harvest as they normally would. It is expected that farmers are unlikely to have the necessary agricultural inputs for the next planting season in April/May 2015. Some farmers in Lofa and Nimba have relied on NGOs for seeds in the past, particularly for rice farming. This reality has ensured that farmers have inputs in the short-run, but may also be inhibiting opportunities for growth in the market-based input retail sector. It will be important for the early recovery response to take the role of NGOs into account in planning for short-term planting and long-run growth in agriculture markets.

Linking Goods to Markets

The assessment team identified widely variable price trends at a community level for locally produced agricultural products, depending on farmers' access to markets and transport. Interestingly, in some rural areas of Nimba, it was reported that the cost of perishable goods (like peppers and bananas) has decreased by more than 50% because farmers can no longer get them out of the county efficiently, due to transportation constraints like checkpoints and curfew restrictions. The increased transportation times, now two to three days, mean many perishables are not getting to markets before they spoil. The town chief in Zogowee, Nimba said that normally at this time of year a large bag of peppers could be sold for 5,000 LD³¹ in the local market; however, now it is in the range of 1,500-2,000 LD. Similarly, a bunch of bananas normally sold for 500 LD, but is currently between 150-300 LD. Alternatively, in areas closer to larger markets with better access to transportation (like Ganta in Nimba), farmers are able to sell perishables at higher prices because they are no longer competing with goods coming from further away. In Neegbein, a community just outside of Ganta that is well linked with vendors in the main market in Monrovia³² (commonly referred to as the Gobachop women), farmers report that prices for local vegetables increased in October 2014, as compared to a year ago, from 250 LD per bag to 400 LD per bag for bitterball and from 2,000 LD to 3,000 LD per bag of peppers. Farmers and community leaders note that this increase is due to the border closure with Guinea (peppers were typically imported to Liberia from Mali through Guinea). The farmers also reported that if they are able to locate their own transport and sell their produce themselves in Monrovia (at a cost of 200-225 LD per bag for transportation) they can sell their bitterball for up to 800-1,000 LD per bag and peppers for up to 5,000 LD per bag. Despite the price increases, these farmers are still not able to sell the produce they have, reporting an increase in wastage from 15% to 25-30%, because of the reduced number of trucks passing through their community. In sum, the assessment team found that wastage levels for produce are higher across Nimba and Lofa counties as a result of reduced access to transport and markets and, while prices vary depending on proximity and connections to markets, incomes from perishable goods have declined.

³⁰ Input suppliers noted that fertilizer usage for field crops in Lofa has been primarily supported by NGO purchases in the past, whereas a higher number of vegetable farmers support small quantities of fertilizer sales in Nimba.

³¹ The GROW program, which has worked with the vegetable market system since June 2013, has recorded the broadest price range as 2,000-4,500 LD for the farmer, so 5,000 LD could be slightly exaggerated.

³² The Gobachop vegetable market is part of the main market, Red Light Market, named after the nearby stoplight.

Conclusion and Recommendations

CONCLUSIONS

As expected, the Ebola crisis has put a significant strain on Liberian markets and increased food security risks for populations in Lofa and Nimba counties and parts of Monrovia. There are some short-term interventions that may ease constraints on market systems and increase food security without disrupting Ebola prevention efforts.

Food Security

Households' food security has already been strained by a combination of reduced incomes and increased prices. Sixty percent of farming households are dependent on imported rice, the staple crop, during lean seasons. In total, only half of the rice consumed in Liberia is produced locally.³³ While upland and lowland rice harvests in October/November and January/February may provide temporary relief for farming households in Lofa and Nimba counties, this will not help non-agriculture producing households due to farmers reluctance to sell their yields. Without open transportation policies, households without access to central markets will lose their ability to access food. If policies continue to restrict transport and trade between Monrovia and up-country (specifically Lofa and Nimba in the case of this study), food insecurity levels will increase significantly by April/May 2015, when rice producing households face lean season.



Liberia — Jill Morehead/Mercy Corps 10/14

In the short-term, providing additional access to income through carefully monitored **cash transfer programming** in areas with functioning markets can increase food security for households. If market access continues to be limited, we recommend **in-kind food distributions** in any areas where markets are unable to meet local demand for key food items, such as rice, to help relieve some of the immediate food insecurity.

Importantly, while most households in all three counties had begun using certain coping strategies at the time of this assessment, such as reducing the quantities of food consumed, few have started selling household or livelihood assets. There is, therefore, a critical, yet shrinking window of opportunity to relieve the economic burden currently felt by households that are struggling to meet their food needs. Forty-one percent of households interviewed reported *significant* reductions in income (the figure increases to 50% for Monrovia).³⁴ These negative income shocks can be addressed through short-term cash transfers. However, cash transfer programs should be monitored carefully to ensure that the influx of cash, and resulting increase in demand for goods, does not have negative effects on prices and availability of essential goods. In addition, cash programming is not appropriate in places where local markets do not have an adequate supply of goods to meet an increased demand. If market day closure, curfew and roadblocks continue to limit the supply of goods and transportation, there is a significant risk that cash transfer programs could lead to inflation and shortages. In the locations where supply shortages occur, markets are not accessible and households cannot produce what they need to eat, food distributions will be necessary.

In the medium-term, it is imperative to ensure the upcoming planting season unfolds as normally as possible. This will require assisting producers in **accessing agricultural inputs** such as seeds and tools and possibly herbicides, insecticides and fertilizers. Liberia has a nascent market for agricultural inputs—existing aid

³³ Fintrac. "The Role of Markets in Food Security, Pre-Ebola Crisis."

³⁴ This is compared to 66% reporting any decrease in income. The average reduction in income for those reporting either a small or significant decrease in income was 2,104 LD for Lofa, 2,597 for Nimba and 4,035 for Monrovia.

programs have pushed for increased usage of fertilizer through trainings and input distribution programs—but use remains low outside of these activities. Programming which strengthens the input supply system and attracts farmers through vouchers/coupons can ensure that farmers who participate in dry-season production have access to inputs, while also building an agro-input market, which is better prepared to resist future shocks (for both rainy season and dry season production). If the *kuu* system has not returned to near normal by March/April 2015, it will also be important to find new methods for the traditional *kuu* to system to function within current restrictions or to revise current restrictions without increasing risk to **ensure sufficient agriculture labor** is available.

The state of emergency declared in early August, is currently scheduled to end on November 6, 2014. If it ends as scheduled and cross-border trade, weekly markets and transportation increase as a result, restoring markets, then **only cash transfer programming may be necessary, rather than in-kind distributions of food** and other essential goods. While market monitoring is an essential component of any cash transfer or in-kind program, it will be extremely critical to conduct weekly market monitoring for any programming (cash transfer programming or in-kind distributions) due to the fluctuations taking place in Liberian markets and the potential changes expected if the state of emergency is lifted. If the state of emergency is renewed, then the recommendation for a combination of in-kind and cash transfer programming stands.

Alleviating Market System Constraints

Currently, economic activity and household access to food has been limited by a few key factors, including limitations on market days, border closures, curfews, checkpoints and reductions in the number of passengers allowed in vehicles. In addition, reduced spending linked with income loss has reduced trade and transit throughout the country.

Yet these factors are creating negative shocks in a country which faced supply constraints prior to Ebola (e.g., poor roads, inadequate vehicles, lack of available transportation and lack of proper storage for agricultural products). Changes to government regulations (so long as deemed appropriate from a public health standpoint), could address those policy issues which are currently driving up transportation costs and reducing supply flows. Likewise, short-term cash-transfers can increase households' ability to purchase necessary food items. Yet, an appropriate strategy for promoting food security and livelihoods should also involve addressing some of the over-arching issues, which inhibited the functioning of markets prior to Ebola. As exemplified through this crisis, countries with weak and thin institutions and markets are most vulnerable to external shocks. A key component to recovery should involve strengthening the systems, which could support the resilience of Liberia's economy if and when future emergencies occur.

Mercy Corps, therefore, proposes a comprehensive program looking at the transportation market system in Liberia to ease some of the growing food insecurity, increase available income streams and provide relief to markets throughout Lofa and Nimba (and potentially counties not included in the assessment). Providing a **permit to commercial vehicles to travel during curfew hours** and facilitate their **passage at checkpoints** could reduce some of the time burdens immediately.

The upcoming dry season is typically the time for road enhancement and repair. Unskilled labor for **road work** could be supported through **cash for work** to enable vulnerable households to gain short-term income. This would clearly have to be closely coordinated with medical authorities to



Liberia — Alison Hemberger/Mercy Corps 10/14

ensure the design does not contribute to the spread of Ebola and should be approved by the County Superintendent.

Bringing goods from Monrovia, rather than over the land borders with Sierra Leone, Guinea and Ivory Coast, has increased costs of goods in rural areas of Lofa and Nimba. Creating a **permit system to allow trusted entities to bring essential goods**, classified as such (e.g., food, medicine, etc.), across the border could reduce prices and allow more households access to these goods. This could be designed in coordination with medical experts to ensure a cross-border program for essential goods does not contribute to the spread of Ebola.

We also recommend a **rapid assessment of the transportation market system** to identify potential interventions, which could address the chronic challenges which prevent rural households from accessing markets, such as poor vehicles and vehicle maintenance, storage practices for transport and supply coordination.

If these restrictions are lifted on November 6th, improvements in the transportation market system will still be important to increase market efficiency and resiliency, though the permit programs will no longer be necessary.

ABOUT MERCY CORPS

Mercy Corps is a leading global humanitarian agency saving and improving lives in the world's toughest places. With a network of experienced professionals in more than 40 countries, we partner with local communities to put bold ideas into action to help people recover, overcome hardship and build better lives. Now, and for the future.



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- 4) Joseph Smith – Employment and Entrepreneurship Facilitator
- 5) Marion Lemon-Thomas – Employment and Entrepreneurship Facilitator
- 6) Melvin Miller – Results Learning and Research Assistant
- 7) Prince Dadzie – Employment and Entrepreneurship Facilitator
- 8) Vivian Samukai – Employment and Entrepreneurship Facilitator

ANNEX 2: Assessment Locations

LOFA COUNTY

- 1) Foya District
 - a. Foya
 - b. Kpakio
 - c. Kpangbenin
- 2) Kolahun District
 - a. Kolahun
 - b. Porlawu
 - c. Massabolahun
- 3) Voinjama District
 - a. Voinjama
 - b. Janyanmai 1
 - c. Lawalazu
- 4) Zorzor District
 - a. Zorzor
 - b. Yeala
 - c. Konia

NIMBA COUNTY

- 1) Saclapea District
 - a. Saclapea
 - b. Korsein
 - c. Loyee
- 2) Saniquellie District
 - a. Saniquellie
- 3) Gbehlay Geh
 - a. Kahnple
 - b. Zogowee
- 4) Garr Bain
 - a. Ganta
 - b. Gbedin
 - c. Neegbein

MONTSERRADO COUNTY

- 1) Monrovia (city)
 - a. Soul Clinic (neighborhood)
 - b. Chicken Soup Factory (neighborhood)

ANNEX 3: Key Informant Interviews

LOFA COUNTY (19 interviews)

- 1) Superintendent of Lofa
 - a. George Dunor
 - b. Assist. Dir. LEGIS – Jacob Forkpa Koryan
- 2) Ecobank – Voinjama
 - a. James Kamoka – Branch Manager
- 3) MTN Mobile Money – Voinjama
 - a. Ruben Stevens
- 4) Ministry of Commerce (FGD) - Voinjama
- 5) Liberian Market Association – Voinjama
 - a. County Secretary – J. Kekula Frederick
- 6) County Agricultural Coordinator - Voinjama
 - a. John Dowee
- 7) Liberian Business Association - Foya
 - a. Chairman – John Bado
- 8) Paramount Chief – Foya
 - a. Momoh S. Taylor
- 9) Assitant District Education Officer – Kolahun
 - a. Allemanuel Kayee
- 10) Acting District Commissioner (Administrative Assistant to District Commissioner) - Kolahun
 - a. George Kimba
- 11) District Agriculture Officer – Kolahun
 - a. Joseph E. Tamba
- 12) Kolahun Electricity Provider – Kolahun
 - a. James Paylay
- 13) Lofa County Wienco Representative (Large Input Supplier) – Kolahun
 - a. Gizzie Kolee
- 14) Youth and Health Community Leaders – Konia
 - a. Dorcas Arku (Nurse)
 - b. Patricia Goanue (Nurse)
 - c. Cyrus Koboe (Chairman of Development)
 - d. Jerry Mumbah (Community Secretary)
 - e. Tanu Weya Yanquor (Youth Representative)
 - f. Austen Camera (Youth Representative)
 - g. Jeremiah Sumo (Chair for Development)
- 15) Market Warehouse Owner – Zorzor
 - a. Famata Mulbah
- 16) Lead Input Supplier – Zorzor
 - a. Helen Flomo
- 17) District Commissioner – Zorzor
 - a. Henry Wolobah
- 18) Chief Dispatcher of Transport Union – Zorzor
 - a. Kokulo Johnson
- 19) Liberia Marketing Association Representative – Zorzor
 - a. Yesa Vabah

NIMBA COUNTY (28 interviews)

- 20) City Mayor – Kahnple
 - a. Evelyn Gweh
- 21) Community Credit Union - Kahnple
 - a. Samuel Tuah – Financial Secretary
 - b. Timothy Luonpea – Loan Department Accountant
- 22) Afriline First Bank – Kahnple
 - a. Samuel Zourpeawon – Branch Manager
- 23) Rural Women – Farm Coop – Kahnple
 - a. Madam Annie W. Kruah – Head
- 24) Mobile Money cash out agent – Shelley’s Fast Food – Kahnple
 - a. Rosetta
- 25) District Agricultural Officer – Kahnple
 - a. Madison Gonganu
- 26) Town Chief – Zogowee
 - a. Mary Kpar
- 27) Agricultural Relief Services (ARS)
 - a. Mr. Peter Lounoglah
- 28) Administrative Assistant to the Superintendent – Saniquellie
 - a. George Karmie
 - b. Paul Kiekanu – Secretary to the Superintendent
- 29) Ministry of Agriculture – Saniquellie
- 30) Transportation Union (cars/taxis only) – Saniquellie
 - a. Aaron Garuashea
- 31) Mobile Money cash out agent – Saniquellie
 - a. Abraham Diakpo
- 32) District Commissioner – Saniquellie Nlah Administrative District
 - a. Gabriel Dunbar Gbanlon
- 33) Market Superintendent General Market - Saniquellie
 - a. Beatrice Lah
- 34) Liberia Marketing Association – Ganta
 - a. K. Sayboe (Secretary General)
 - b. S. Arlo Glay (Financial Secretary)
- 35) Contract Farming Trader - Ganta
 - a. Yah Musoh
- 36) Community Leaders – Konieh
 - a. John Wah (Chief)
 - b. Arthur Karnue (Youth Leader)
- 37) District Commissioner – Sacleapea
 - a. Wallace Zigbuo (Commissioner)
 - b. Cooper Karnue (DHO)
 - c. Marcus Gookpah (Social Worker)
- 38) Input Retailer (Agro, Inc.) – Sacleapea
 - a. Barbara Kerpah
- 39) District Agriculture Officer – Sacleapea
 - a. Ben Sayee
- 40) Large Rice Trader – Sacleapea
 - a. Leroy Dahn
 - b. Ousman Donzo
- 41) District Commissioner – Ganta
 - a. Shirley Brown
- 42) City Mayor – Ganta
 - a. D. Doe Cooepr
- 43) Rice Transporter – Ganta

- a. Saye Usdialor
- 44) Federal Road Transport Union – Ganta
 - a. Gerry Luogon (President)
- 45) Youth Chaimman – Neegbein
 - a. Aloysium Vinkeu
- 46) Input Retailer –Ganta
 - a. Dorris (Becky’s Agro Retail Dealer)
- 47) Focal point – Gbedin (Saniquellie Road)
 - a. Jefferson Tokpah

MONROVIA – SOUL CLINIC (6 interviews)

- 48) General Community Chair
 - a. Mr. Jonathan Enders
- 49) Block A Leader
 - a. Davidson Quaqua
- 50) Liberian Market Association (LMA) – Goba Chop market
 - a. Queta Sumo
- 51) Assistant Leader of Goba Chop (vegetables)
 - a. Kuma Zay
- 52) Block C Leader
 - a. George S. Dokie
- 53) Block E Leader
 - a. Joanna

MONROVIA – CHICKEN SOUP FACTORY (3 interviews)

- 54) Block F Coordinator
 - a. Paul Nimely
- 55) Block G Coordinator
 - a. Williette Harding
- 56) Market Superintendent
 - a. Finda Bayo

MONROVIA (9 interviews)

- 57) Ministry of Commerce
 - a. Pewee Reed – Small and Micro Enterprise
- 58) Welt Hunger Hilfe
 - a. William Marshall
 - b. Theo Phyllis Dabrah
- 59) USAID Food & Enterprise Development (FED) Program for Liberia
 - a. K. Eric Yeasu
- 60) Monrovia Entrepreneur Network (MEN)
- 61) Ministry of Planning/Ministry of Gender, Children, and Social Protection
 - a. Gaby Fernandez
- 62) Ministry of Agriculture
 - a. Deroe Weeks
- 63) GROW program
 - a. Hilary David
 - b. Johannes Cooper

64) Ministry of Transportation

- a. Hon. Kou Fahnbulleh

65) Port Authority

- a. David Williams (Deputy Managing Director- Operations)
- b. Barnabas Kasor, Jr. (Director of Ports and Harbor)