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Bangladesh
Food Security and Vulnerability Monitoring (mVAM)
September 2022

mVAM system

The remote food security monitoring system (mVAM) was launched in July 2022 and collects data via telephone interviews from households across Bangladesh. Data was collected from 1,200 respondents randomly selected across eight divisions since July; thus, the report is entirely based on these surveyed households. The mVAM survey was launched to provide near real-time analytics on food security and essential needs analysis across the country. It allows regular assessment of the impact of shocks, including the developing global food crises, the COVID-19 pandemic, and floods. The mVAM survey was set to report with a 8 percent margin of error for divisionally representativeness at a 95 percent confidence level.

Note that phone interviews are more prone to bias and should be interpreted carefully. It is a random survey and does not produce official statistics. It is not a panel survey, but the household economic category is based on their occupation, and thus, it is assumed that there is homogeneity for comparison. WFP is working with the Bangladesh Bureau of Statistics to establish a sustainable food security surveillance system.
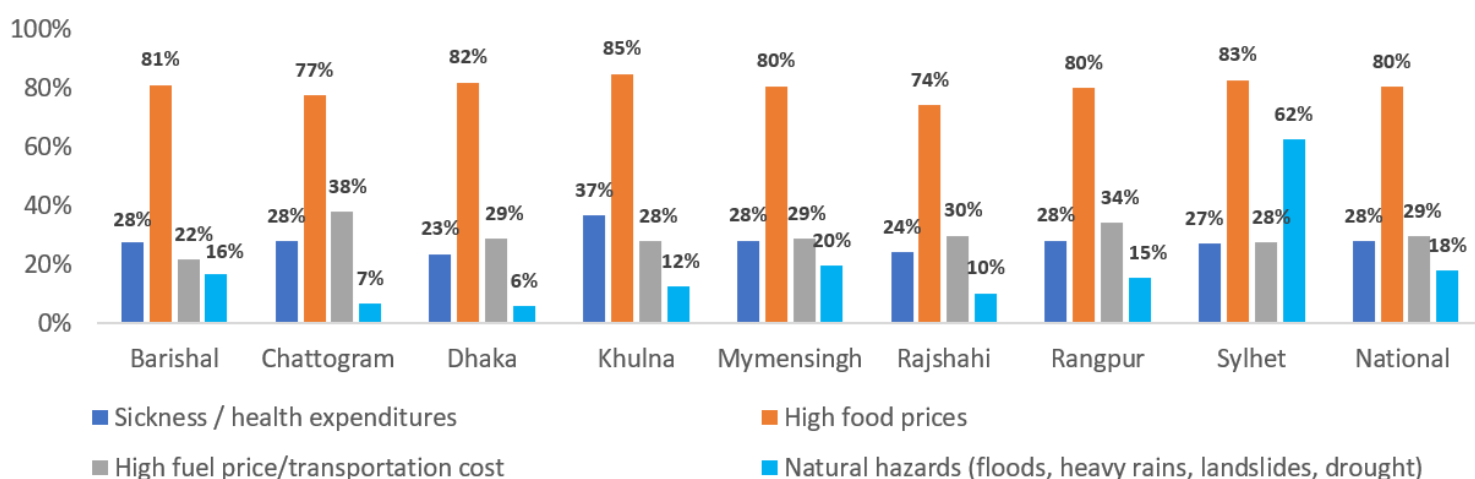
Highlights

- A slight improvement in the overall food security situation was observed from an average national trend of the households surveyed in July, August, and September. However, disaggregated analysis of the households in income groups revealed that medium and low-income households struggled to cope with the loss of income, negative coping, and high food prices. The low-income households surveyed exhibited severe food consumption gaps and applied crisis to emergency coping mechanisms to meet their required food and essential needs.

- On a national average, 83 percent of households were food secure or marginally food secure as per WFP's comprehensive food security indicator, and 17 percent of households reported moderate to severe food insecurity in September. On average, more than one-third of the surveyed households were in better livelihood conditions having access to food without any negative coping mechanism. None of the surveyed households in the Sylhet division scored food secure. However, in September, households reported a slightly significant recovery from the food gaps, negative coping, flood impact, and income losses.

- In all the divisions, a significant percentage of households reported income loss over the last six months, which was very high in Khulna, Dhaka, Sylhet, and Barishal. On the contrary, 88 percent of households reported increased household expenditure, similar to August.

- The high-income group continues to perform comparatively better; 98 percent were marginally food secure.

Situation Overview

- Food prices in Bangladesh rose by 9.08 percent from a year earlier in September 2022, slowing from a 9.94 percent surge in August, reported by the Bangladesh Bureau of Statistics.

- This increase is driven by a surge in food inflation in the domestic market since food makes up about 60 percent of the Consumer Price Index (CPI) in the country. The year-on-year increase in the annual general inflation was as high as 63 percent in September, which certainly poses an alarming vibe. However, import payments did not show any significant rise during this period

Shocks

Figure 1: Main Household Shocks and Stressors in the Last Six Months in Eight Divisions (%)

Legend:
- ■ Sickness / health expenditures
- ■ High food prices
- ■ High fuel price/transportation cost
- ■ Natural hazards (floods, heavy rains, landslides, drought)

The impact of natural disasters, and the tension of the global high fuel prices, somewhat calmed down in September compared to the month of July and August. Price hikes remained the most challenging in the past six months, consecutively similar since the survey started in July this year, and most households continued to suffer from high food prices and inflation. The households surveyed in the Sylhet division were still recovering from the loss and damages from the concurrent floods in the monsoon season. The percentages of households that reported priority needs of food, livelihood, health, education, and shelter support reduced compared to the previous months of July and August 2022.

Priority Needs Reported in September

Food (42%)   **Livelihoods (46%)**   **Health (26%)**   **Education (17%)**   **Shelter (9%)**

## Comprehensive Food Security

The remote comprehensive food security index (rCARI) is an aggregated food security index used to report on a population's comprehensive food security. The indicators used to calculate this are: (i) food consumption scores, (ii) livelihood coping mechanisms, (iii) income sources, and (iv) income changes due to shocks.

Figure 2: Comprehensive Food Security of Households in Eight Divisions (%)
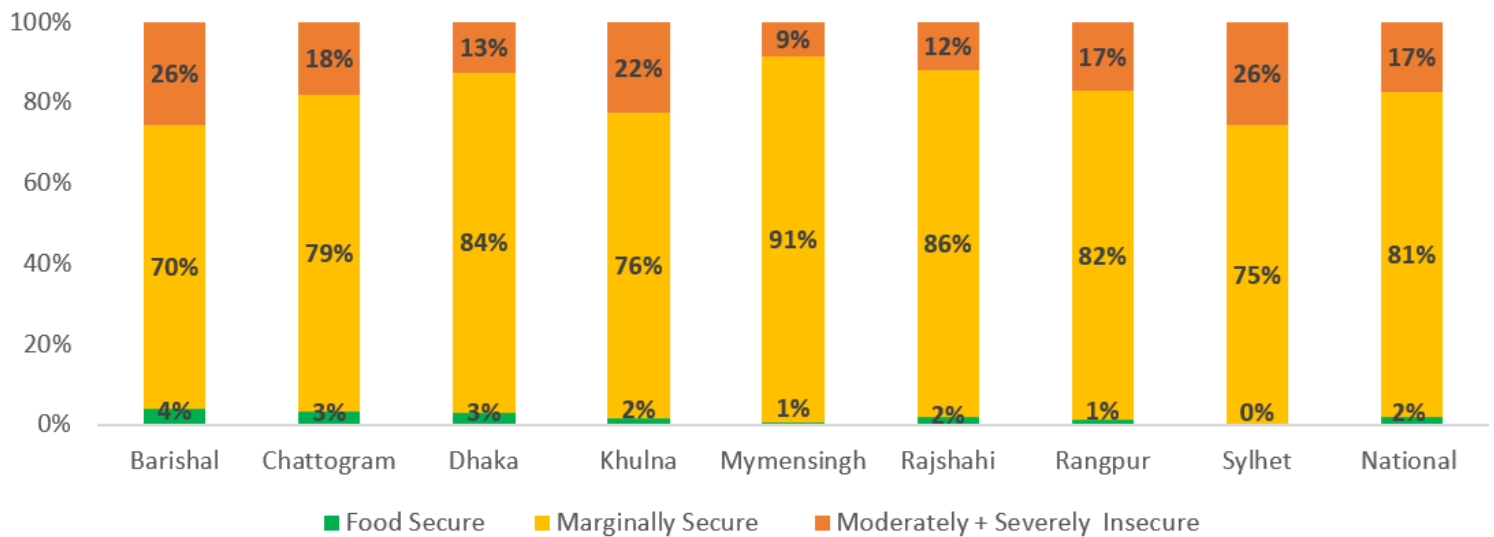
In eight divisions, on a national average, 17 percent were moderate to severely food insecure, 81 percent of households were marginally secure, and only 2 percent were food secure, per the rCARI indicator. In the Sylhet division, none of the surveyed households was found food secure. However, the households with moderate to severe food insecurity were 10 percent less in September.

Figure 3: Trends in Comprehensive Food Security of the Households (%) in Three Months
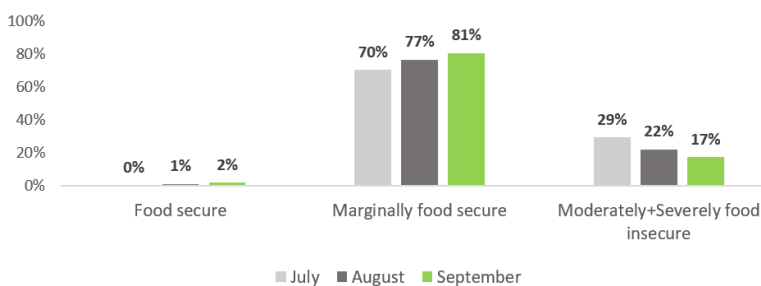
A three-month comparison (Figure 3) showed a positive trend in all the groups of food security nationally. However, disaggregating to further income group analysis revealed that low-income households continued to suffer and were in dire need of support in the short and long run. Figure 4 shows the disaggregated information, where medium and low-income groups face a different situation than the national average households. Among the low-income group, 36 percent of households exhibited severe food consumption gaps and applied crisis coping mechanisms to meet their required food and essential needs, and 63 percent were moderate to severely food insecure. In terms of the comprehensive food security indicator, 98 percent of the high-income group households were marginally food secure, and it might be a concern in the long run if there is another big shock like a pandemic or natural disaster and if the high inflation and food prices continue to prevail and rise.

Figure 4: Comprehensive Food Security in Different Income Groups in September (% Households)
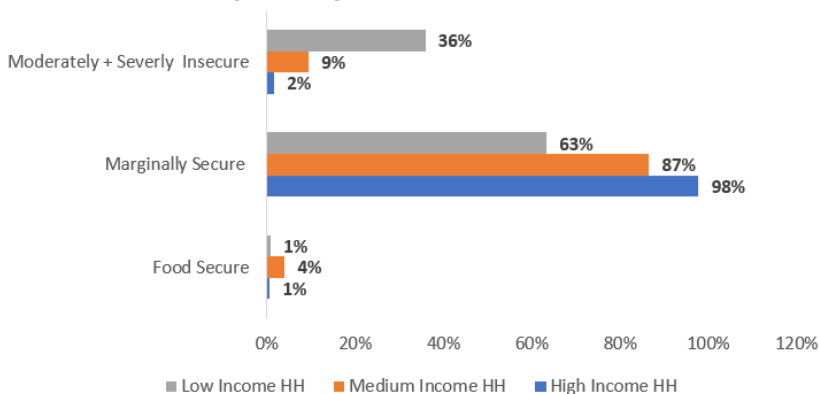

Among the households surveyed, a minimum percent of households met the comprehensive food security index criteria, and the majority of households surveyed fell in the marginally secured criteria. It points out that the marginally secured households might not have compromised with food quality or quantity. Still, they were anxious about food insufficiency or stock for a long time.

Food-Based Coping Strategy

Reduced food-based coping strategies (rCSI) scores are used as a proxy variable for food insecurity. The rCSI is based on the frequency and severity of coping mechanisms for households reporting food consumption problems and assesses the stress level of households due to a food shortage. A high score indicates a higher stress level, and a lower score means that the household is less stressed.

Figure 5: Food-based Coping of Households in Eight Divisions (%)
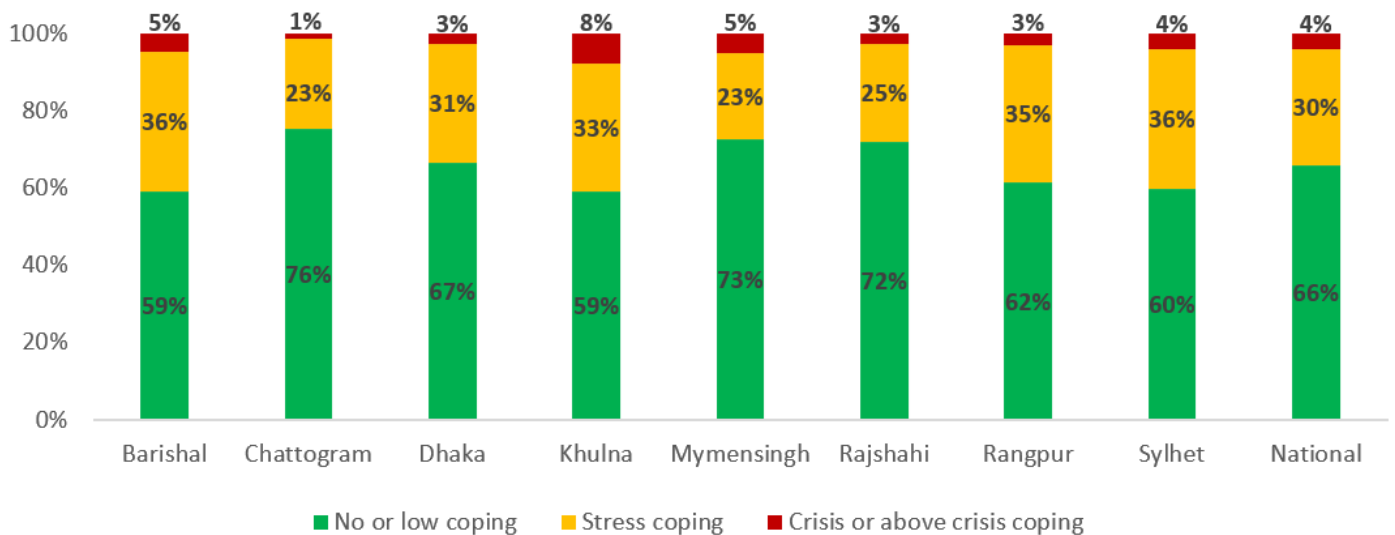
A slightly higher percentage of households reported no or low coping to access food in September (66 percent), which was 59 percent in August. The situation in Sylhet and Barishal had also improved to the previous month, but not compared to other divisions. On the contrary, the low-income households reported buying food on credit, support from friends and family, limiting portion sizes, and limiting the number of meals in hardship. This had been similar over the last two consecutive surveys.

Amongst the income group category, 44 percent of households in the low-income group were in no or low coping, mostly due to exhaustion of coping mechanisms in the previous months. It was 20 percent less than the national average. It is alarming that 8 percent of the low-income group households were adopting crisis to above crisis and 48 percent stress coping mechanisms to meet household food access. Over time these households had likely been shifting from no coping to above-crisis coping as they have minimum income generation options. Migration to other areas for livelihood was observed less in September.

Figure 6: Trends of Food-based Coping of Households in Three Months (%)

Among the high-income group, 95 percent of the households remained in a safer zone due to their fixed high-income occupation. However, 5 percent were in crisis coping, meaning the households had to ensure access to food by compromising the quality and quantity of food.
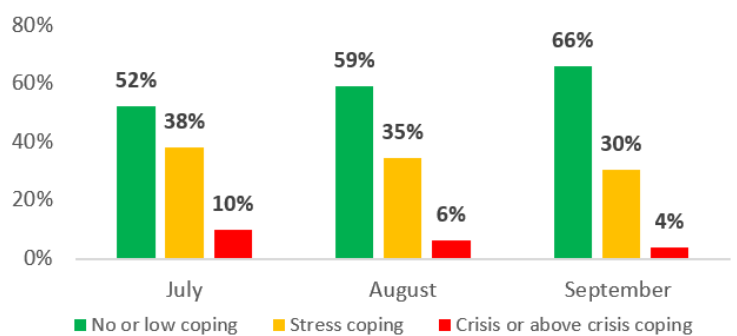
**Figure 7: Food-based Coping in Different Income Group Households (%)**
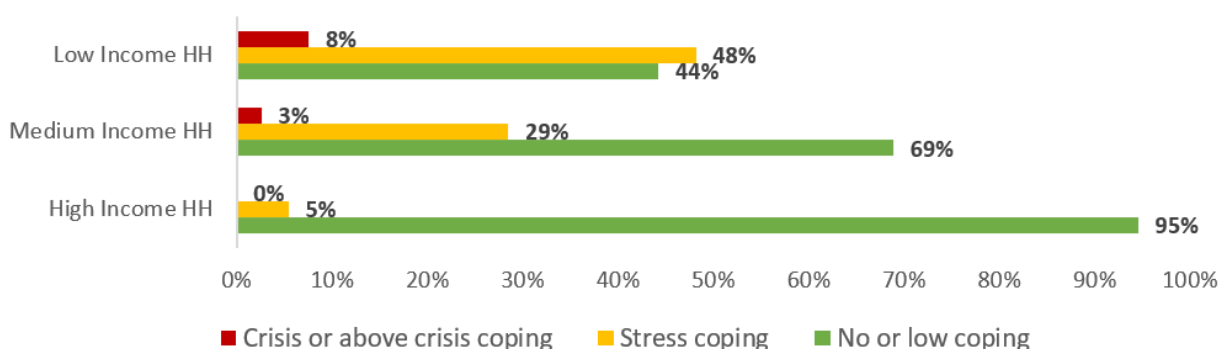
Livelihood-Based Coping Strategy (LCSI) strategy

The Livelihood-based Coping Strategies Index (LCSI) builds on understanding the behaviours vulnerable households engage in to meet their immediate food security and essential needs in times of crisis or shock.

Figure 8: Livelihood-based Coping of Households in Eight Divisions (%)
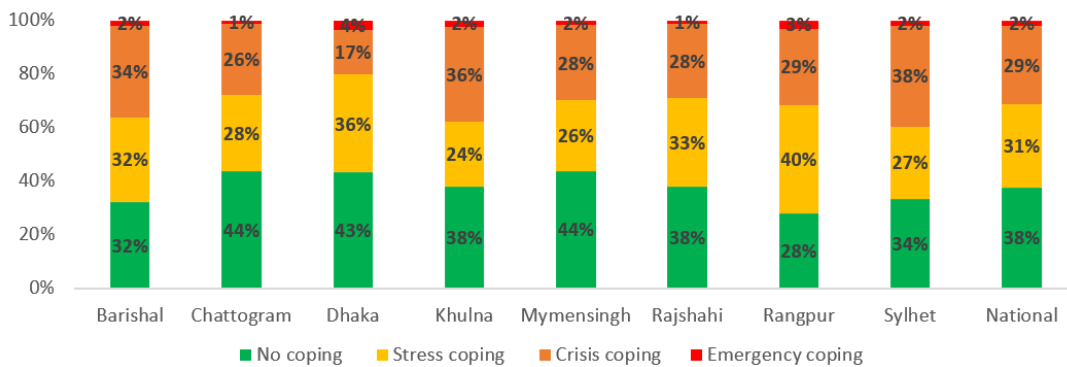
Households were observed to apply different coping strategies to meet their immediate food security needs in September. On average, 38 percent of households were in better livelihood conditions and adopted no coping. On the contrary, 62 percent of households struggled to access food through stress to emergency coping mechanisms across the country. In divisional comparison, Sylhet, Barishal, and Rangpur had the highest number of households that reported selling household assets, borrowing, spending savings, reducing health and education expenses, and 2 to 4 percent engaged in undignified means of livelihood. The percent households that reported having debts was still high since the survey started in July; 60 percent accounted for in September.

**Figure 9: Trends of Livelihood-based Coping of Households in Three Months (%)**
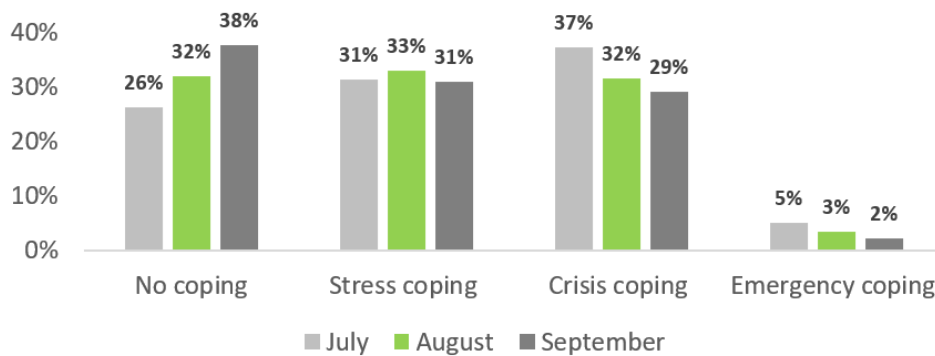
The three months trend (Figure 9) for the household surveyed showed a slight improvement from July to September, and the percentage of households with the flexibility of no coping increased by 12 percent from July. The income group analysis (Figure 10) of livelihood-based coping indicators revealed more in-depth conditions of the households in the low and medium-income groups, similar to the other indicators. The percentage of households under stress, crisis, and emergency coping was very high in the low-income group, aggregating to 80 percent; only 20 percent of households reported having no coping, which is 36 percent in the medium-income group.

Figure 10 : Livelihood-based Coping in Different Income Group Households (%)
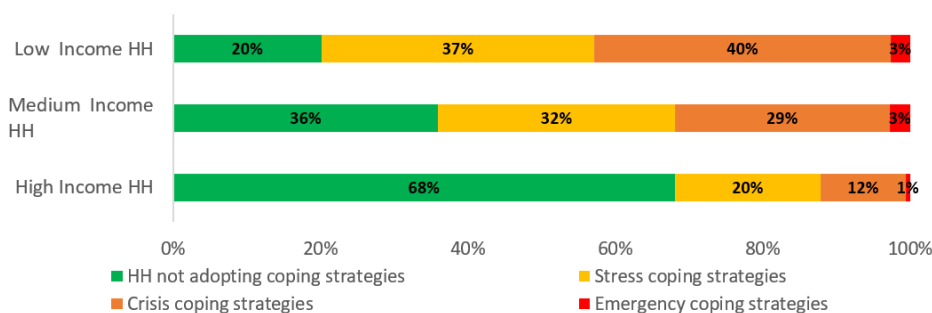
On top of that, 3 percent of households in both low and medium-income groups were in emergency coping, meaning selling their houses or lands, begging, or engaging in illegal activities. The high-income group remained in a better position in three consecutive surveys, although 33 percent of households adopted different coping mechanisms. A three-month trend of different coping mechanisms adopted by the households is worrisome as most of the coping mechanisms are diminishing with the month, indicating exhaustion with more households using savings in September. More than 90 percent of households reported not receiving any assistance. Among the 10 percent, 1 percent reported receiving assistance from WFP.

Figure 11 : Livelihood-based Coping Mechanisms used by Households in Three Months (%)

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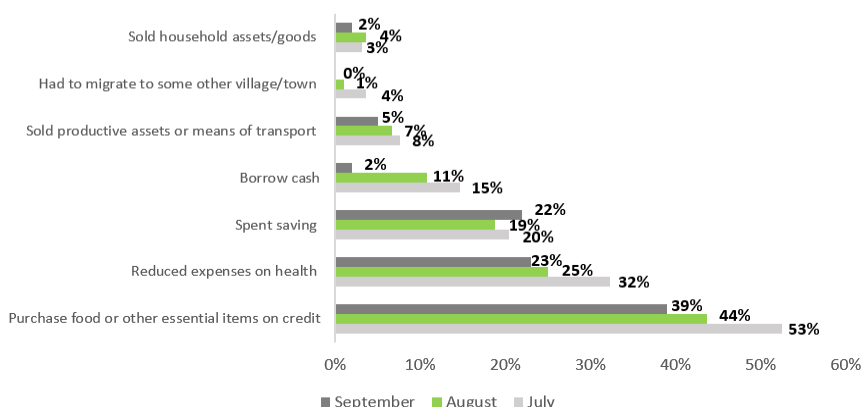
Food Consumption Score

The "Food consumption score" (FCS) is a score calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. There are standard weights for each of the food groups that comprise the food consumption score.
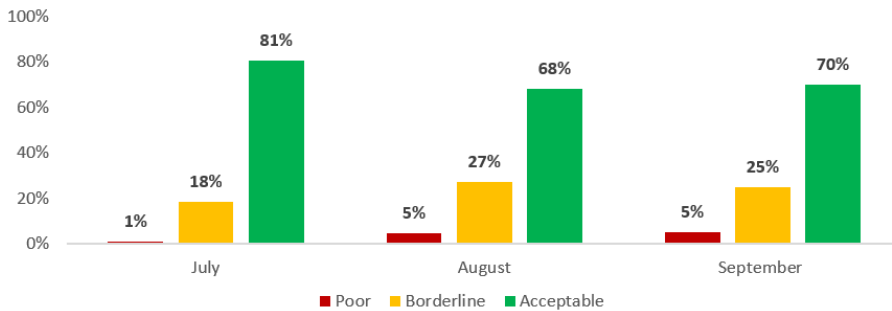
Figure 12: Food Consumption Score of Households in Eight Divisions (%)
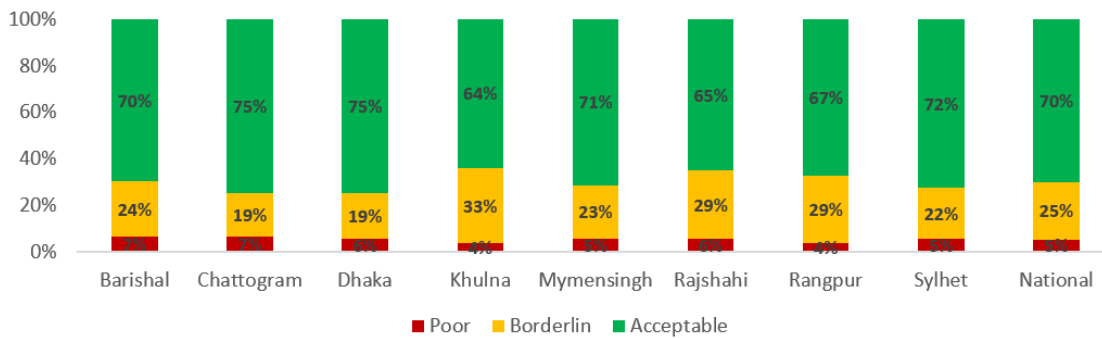
Concerning households' food consumption in September, an average of 70 percent in eight divisions had an acceptable diet, which is 2 percent higher than in August and 11 percent less than in July. There were no significant changes in the national average from August to September, except for a 2 percent shift from poor to bor-

derline diet and an unchanged 5 percent of households having a poor diet. Almost all the divisions showed improvement in the percentage of households having acceptable diets, including a significant improvement in Sylhet and Mymensingh than in August.
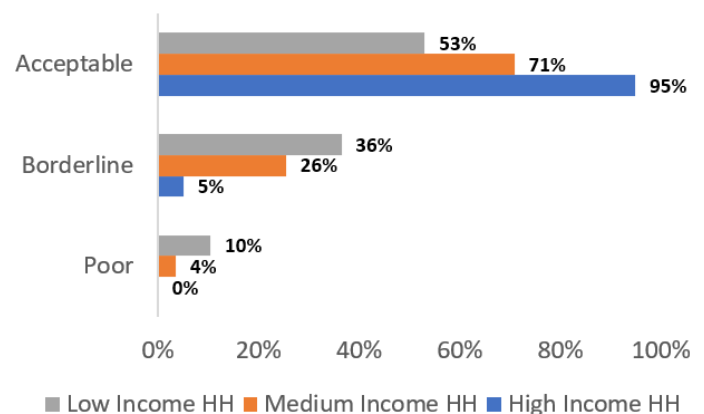
Figure 13: Trends in Food Consumption Score of Household in Three Months (%)

A three-month overall trend (Figure 13) revealed a sharp decline in food consumption in August, with a 4 percent incline in households having poor and borderline diets. In September, it slightly improved (2 percent in Acceptable and borderline food consumption) without changing the percentage of households under poor diet. As reported in July, despite having economic difficulties, the seasonal availability of fruits and fish at a lower price was reflected in the household's high food consumption, which was not the case in September.

As per income group analysis (Figure 14), 95 percent of high-income households met acceptable diet needs, and only 5 percent were on the borderline. It has been a stable feature among the high-income households surveyed since July. The survey revealed that 53 percent of households in the low-income group had an acceptable diet, 36 percent were on the borderline, and 10 percent had a poor diet. Unemployment, loss of income, recovery from debts and losses from the disaster hit, and high food prices demeaned the purchasing power of the low and medium-income groups and reduced affordability to access nutritious food.

The dietary pattern of having nutrient-rich food by the households was measured by the FCS-N indicator (Figure 15). It showed a similar pattern in September from the previous month, with a change of 1 percent. The number of households consuming Vitamin-A-rich food every day was 52 percent, and 56 percent of households had regular protein intake. The intake of heme-rich food was much lower in the surveyed households across the country and lowest in the low-income group. Only 16 percent of households regularly consumed haem-rich food, 77 percent had it irregularly, and 7 percent had no heme-rich food in their diet. The status of the low-income households was worse in micronutrient consumption from their daily diet. Healthwise, these are alarming signs, especially the households with children and pregnant and lactating mothers. Across the country, in eight divisions, 38 percent of the surveyed households had children under 5, 30 percent had elderly members, and 9 percent of households reported pregnant women members.
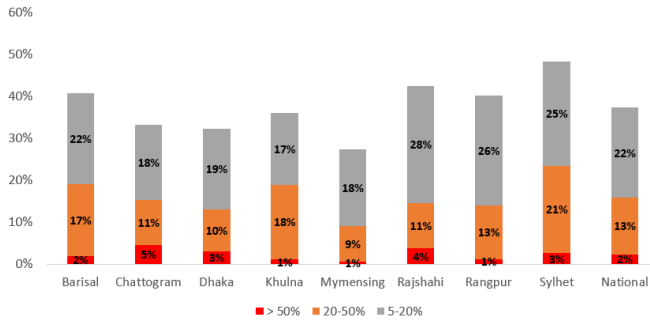
Figure 14: Food Consumption Score in Different Income Group Households (%)

Figure 15 : Household's Days with Consumption of Nutrient Rich Food (%)
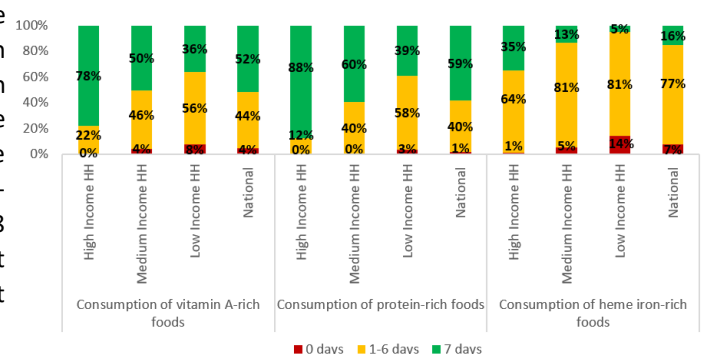
Income and Expenditure

On average, 37 percent of households reported a loss in income, where 13 percent reported a 20 to 50 percent loss, 22 percent a 5-20 percent loss and 2 percent more than 50 percent loss within the last six months. The households lost their income over the last six months due to loss of employment, fewer daily labour opportunities, disruption in market functionality, price hikes, lack of assistance, illness, health expenditure increase, etc. In all the divisions, a significant percentage of households reported income loss over the last six months, which is very high in Khulna, Dhaka, Sylhet, and Barishal. A three-month trend analysis revealed a positive but slow recovery from Income loss over the last month. In August, the survey revealed a deterioration in the income situation across all eight divisions.

A comparison of the income and expenditure depicted that many households lost their income significantly (Figure 17) in August and September and reported significant expenditure increases. Like August, 88 percent of households (Figure 18) reported increased household expenditure. More than 8 percent reported a drastic increase in 50 percent, 39 percent significantly within a 20-50 percent increase, and 38 percent within a marginal increase of 5-20 percent of expenditures over the last three months. Only 9 percent of households reported an increase in income in the previous six months.
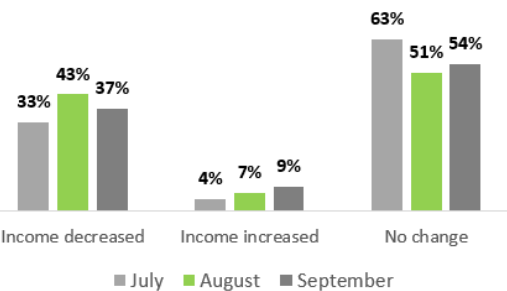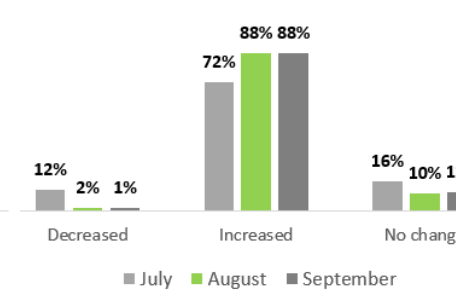
Income and expenditure have severe implications on the ability of households to stand food security shocks and resilience. The decline in income was cascaded in all income groups, especially in low and medium-income households. However, the drop in income is far steeper for the low-income group who depends mostly on skilled and nonskilled daily labourers, petty traders, etc. More than 50 percent of low-income households reported having income loss which is 20 percent higher than the national average, and medium-income households and 30 percent higher than high-income households. The survey revealed that 21 percent of high-income households reported a decrease in income, and 16 percent reported an increase in income (Figure 19). Interestingly, expenditure increase was similarly reported by all households surveyed (Figure 20). The loss of income over the last six months and significant expenditure increase puts low and medium-income households in severe challenges in ensuring food security and well-being in the coming days.

Figure 16: Decreased Income of Households in Eight Divisions (%)

Figure 17 : Overall Changes in Income (% HHs)

Figure 18: Overall Changes in Expenditure (% HHs)

Figure 19: Overall Income Change in Different Income Group Households (%)
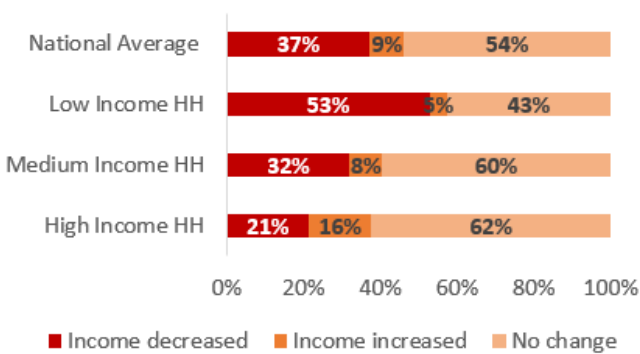
Figure 20: Overall Expenditure Change in Different Income Group Households (%)