

HOUSEHOLD FOOD SECURITY OVERVIEW 2023

World Food Programme, Sri Lanka

SAVING LIVES CHANGING LIVES

Table of contents

3	Overview and methodology
4	Key highlights
6	Food insecurity
9	Household food consumption
12	Vulnerability and coping strategies
18	Expenditure on food
20	Annexe one (sampling methodology)
21	Annexe two (data tables)

Overview and methodology

In 2022, Sri Lanka faced an unprecedented economic crisis, coupled with high inflation, soaring prices, unfavourable harvests and depleted foreign reserves leading to a substantial impact on food security. As a result, 28 percent of the population were estimated to be food insecure, according to the WFP-FAO Joint Crop and Food Security Assessment Mission (CFSAM - May 2022).

In 2023, WFP and FAO jointly conducted a second CFSAM in March, based on a sample of 15,035 households designed to produce representative estimates at district level.

Between August and September 2023, WFP conducted a follow-up survey of 8,633 households out of which 4,398 households were selected from the previous round to constitute a panel sample while the remaining 4,235 were randomly selected from a new sample frame. Please refer to Annexe 1 for more details on the sampling strategy.

This report provides an in-depth analysis based on the two assessments conducted in 2023 and a comprehensive overview of food security situation in 2023 including the seasonal comparison. It also explores causes of persistent food insecurity for the acute and chronically food-insecure populations in recent years.

The utilization of a panel sample in research offers several advantages that contribute to the depth and reliability of the study. One primary advantage is the longitudinal nature of panel samples, which enables examining changes and developments over time within the same set of subjects. This temporal continuity allows researchers to track trends, causality, and the impact of interventions more effectively.

Moreover, the ability to track changes within the same group mitigates the potential biases introduced by variations between different samples since each respondent behaves as their control. The repeated measurements in panel studies enhance statistical power and provide a comprehensive perspective on the dynamics of the studied phenomenon.

Both the respondents for the full sample and panel sample were randomly selected for the survey. Nonetheless, additional comparative analyses were conducted to ascertain the representativeness of the panel sample compared to the full sample of 8,633 households, especially the demographic and socio-economic characteristics.

As can be seen from Fig 1, comparing the full sample to the panel sample, no significant differences were found in key indicators related to food security, including the percentage of female-headed households, household education levels, sanitation, employment composition, and household size. These results emphasize the representativeness of the panel sample in reflecting the characteristics of the overall population.

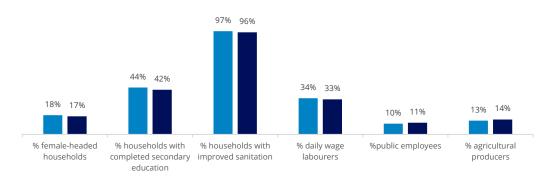


Fig 1: Socio-economic characteristics comparison between full sample and panel sample

■ Full sample ■ Panel sample

View WFP-FAO's Joint CFSAM reports for 2022 and 2023,

Key highlights

					and the second s
	24 percent of households were moderately food insecure32 percent of female-headed househ were food-insecure, compared to 23 percent of male-headed households.		to 23 were	highest levels of food insecurity e found in the estate sector, at ercent of households.	
À	26 percent of households were consuming inadequate diet	31 percent of female-headed households experienced inadec consumption.	facing inac	t of estate households were dequate consumption, the mpared to the urban and rural	
				10 m	
	42 percent of households were turning to food-based coping strategies.	48 percent of female-headed households were turning to fo coping strategies, compared to percent of male-headed house	od-based ado	r eight in ten estate households oted food-based coping regies.	
****	Four in ten households employed at least one livelihood-coping strategy.	43 percent of male-headed hous percent of female-headed hous turning to livelihood-based copi	eholds were	80 percent of estate households adopted livelihood-based coping strategies	
•••	Households were spending more than 62 percent of total expenditure on food.	Female-headed households spent 65 percent of their expenditure on food.	Households in the food expenditure	estate sector had the highest at 65 percent .	



Recommendations

In 2023, the percentage of households experiencing food insecurity fluctuated, ranging from 17 percent around March to 24 percent in Aug-Sep 2023. The end of 2023 saw a decline in the proportion of households adopting coping strategies compared to start of the year. However, their food consumption levels still remained at concerning levels, and in-fact got worse towards the end of the year. This volatility underscored the precarious nature of households' access to food in 2023. A large percentage of households resorted to various coping strategies, including altering spending patterns to allocate a larger portion of their budget to food resulting in the erosion of household resilience to withstand future shocks as they keep losing their livelihood assets and the ability to maintain and enhance their economic well-being.

Therefore, there is a pressing need for interventions that address the underlying causes of food insecurity. By tackling these root issues, such interventions empower households to build resilience against future economic downturns and other unforeseen challenges.

Rural livelihood diversification: Households relying directly and indirectly on agriculture had poor food security outcomes, especially agricultural wage labourers during lean periods. Agriculture is a seasonal activity and in times when agriculture-related income opportunities are limited, there is a need to develop interventions that can provide additional year-round income for vulnerable households. Supporting initiatives that enable rural communities to diversify their sources of income beyond agriculture, such as micro-enterprises, off-farm employment, and vocational training programs provide households with alternative sources of income and reduce dependency on unpredictable agricultural livelihoods.

Food fortification and supplementation: Lack of adequate and diverse diets was one of the main causes for household food insecurity which also contributes to micro-nutrient deficiency. Nutritious diets are substantially more expensive and given the loss of income from the economic downturn, many households were unable to afford it. It is therefore important to implement national fortification programmes to fortify foods with essential micronutrients to address micronutrient deficiencies in vulnerable populations that has been affected by the economic crisis. Additionally, supporting and strengthening national nutrition programmes like Thriposha will contribute to improved nutritional status of the country. Social safety nets strengthening: Households relying on national social protection programmes such as Samurdhi were found to be highly and chronically vulnerable to food-insecurity. Addressing this requires strengthening of social protection programs to provide the most vulnerable households with reliable income support and access to food. Social safety nets enhance the resilience of households to cope with economic shocks and food insecurity.

Gender empowerment: The survey has found significant differences in food security outcomes between male and female-headed households, with a larger proportion of female-headed households classified as food-insecure. It is important to promote gender equality and women's empowerment through targeted interventions, such as women's access to land, resources, and decision-making opportunities in agriculture and rural development. Empowering women and increasing their knowledge and capacity enhances household food security and improves nutritional outcomes for the members of the households, especially women and children.

Policy support and governance: Enact supportive policies and strengthen governance mechanisms to create an enabling environment for sustainable agriculture, poverty reduction, nutrition improvement, and social protection. Effective policy frameworks and good governance facilitate the implementation of interventions that address the root causes of food insecurity and promote inclusive and sustainable development.

Food insecurity

Nationally, 24 percent of households were estimated to be moderately food insecure during Aug-Sep 2023.

This represented a deterioration in the country's food security situation compared to March 2023, where 17 percent of households were food-insecure. The increase in food insecurity is mainly due to reduced levels of food consumption especially among vulnerable groups including daily wage labourers and social assistance programme beneficiaries. Compared to March, which was the Maha harvest, farmers also reported reduced food consumption reflecting a seasonal pattern.

The highest prevalence of food insecurity existed in the estate* sector.

In the estate sector, 51 percent of the households were reportedly food insecure. This was followed by the rural sector, where 26 percent of households were food insecure. The urban sector had the lowest levels of food insecurity, at 15 percent.

The estate sector is host to tea plantation workers who mainly depend on the labour intensive work of plucking tea leaves and earn minimum wages which is significantly lower than the wages paid to similar type of workers in other industries in Sri Lanka. Additionally, other socio-economic factors including education and living standards are lower compared to general population.

Compared to March 2023, a larger percent of households became food insecure in all areas. However, the deterioration was more pronounced in estate areas (by 9 percentage points) followed by rural areas whereas the prevalence remained similar in urban areas. This highlights the greater impact of seasonal factors on rural households owing to their primary livelihood strategies which are mostly agriculture-based.

*The estate sector primarily consists of areas with large tea plantations (> 20 acres and > 10 residential labourers) mainly located in the central highlands of Sri Lanka, particularly in regions like Nuwara Eliya, Kandy, and Badulla. This sector employs a considerable number of people, particularly from the Tamil ethnic minority, who often reside in housing provided by the estates themselves. Five percent of the total population reside in estate areas while 77 percent reside in rural areas. (Department of Census and Statistics)

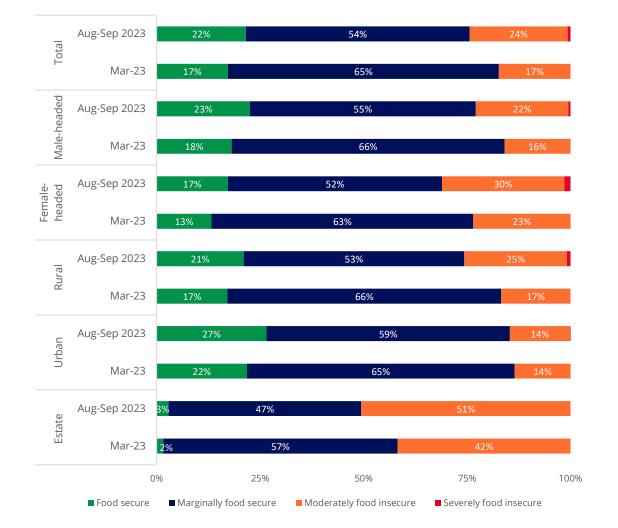


Fig 2: Food security rates by different population groups in 2023 as percentage of households



A larger percentage of female-headed households were food insecure.

During Aug-Sep period, 32 percent of female-headed households were food-insecure, which is nine-percentage point higher compared to male-headed households (23 percent). The prevalence of food insecurity among both female- and male-headed households increased in Aug-Sep from March 2023 by 8 and 5 percentage points respectively (see fig 2). Both surveys conducted in 2023 have highlighted that female-headed households are at grater risk of food insecurity than the male-headed households.

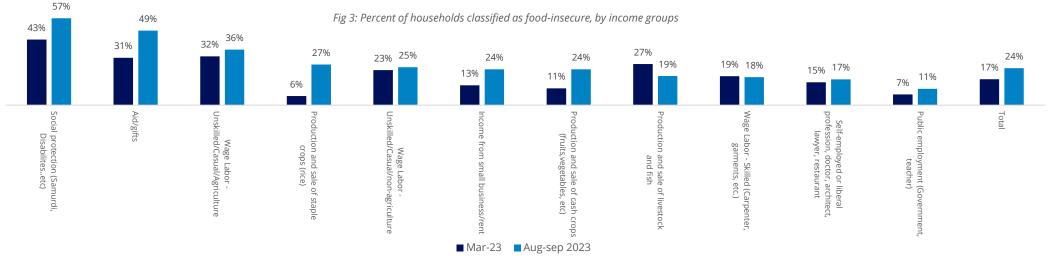
Households relying primarily on social assistance programmes as their main income source had the highest food insecurity rates (57 percent).

This was followed by households dependent on external assistance such as humanitarian aid and livelihood support (49 percent). In contrast, households with stable and regular income sources coming from government employment and business ownership had the lowest levels of food insecurity. There was a substantial rise in the percentage of food-insecure households involved in the production and sale of staple crops, particularly rice, soaring from 6 percent to 27 percent between March 2023 and August-September 2023. A similar situation was observed among households who derived their incomes from the sale of fruits and vegetables. This significant increase underscores the seasonal vulnerability of agricultural communities and the lack of stable secondary income sources. In contrast, households relying on producing and selling livestock and fish had better food security outcomes compared to March 2023.

The survey has showed that sustainable livelihoods play a crucial role in influencing food security by providing households with stable and diversified sources of income, resources, and skills necessary to access food. They also tend to be more resilient to external shocks, such as climate change, natural disasters, or economic downturns.

For example: Households engaged in skilled professions such as government employment, those who owned businesses or skilled wage labourers, were able to remain food secure throughout the year, unaffected by seasonal changes (such as income, climate or economic conditions).

Food insecurity was assessed utilizing the <u>Consolidated Approach for Reporting Indicators of Food Security</u> (<u>CARI</u>), a WFP indicator known for providing a concise overview of various food security levels within a population. CARI comprises two domains. It evaluates the availability and accessibility of food by analyzing the present condition of household food consumption. It also gauges a household's capability to maintain consumption levels over time by examining coping capacity through economic vulnerability and livelihood coping strategies.



In 2023, households continued to face high seasonal volatility in their food security situation driven by fragile macro- and micro-economic economic conditions brought by the economic crisis.

This analysis is based on the panel sample of 4,398 households and provides more insight into how the food security situation evolved throughout 2023. The rest of the report is based on full sample of around 8,000 households.

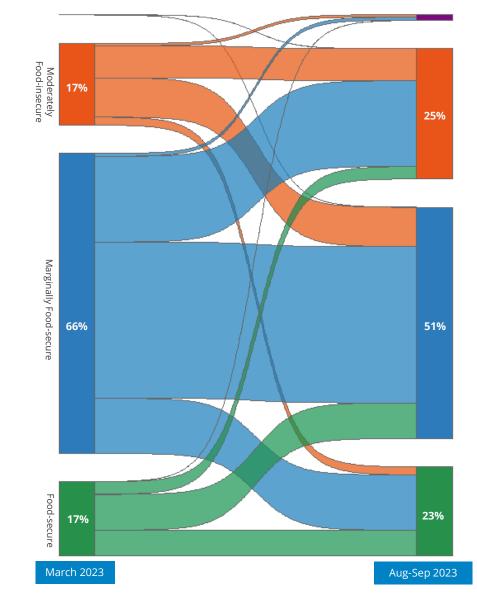
The transition of households into various food security stages is depicted in Fig 4, which highlights high volatility in households' seasonal access to food. For example: among the group that was food-secure in March, only 35 percent remained so in Aug-Sep while 17 percent moved into the food insecure category. Similarly, among the food-insecure group in March, 42 percent remained food-insecure, 10 percent became food-secure.

Households that remained chronically food insecure face structural challenges including lower education attainment, poor living conditions, and irregular sources of income. For example: 33 percent of the households that remained food-insecure both in March and Aug-Sep were engaged in non-agricultural unskilled wage labour activities compared to only 11 percent that remained food-secure during both survey rounds. Sex of the household head was also found to have significant association with chronic food insecurity. Among households that remained food-insecure between two periods of assessment, almost one-fourth were female-headed.

Households that remained food secure	Households that remained food in-secure
18% were female-headed	• 24% were female-headed
• 6% did not complete primary education or above	• 20% did not complete primary education or above
• 46% had adequate living space*	• 29% had adequate living space
• 2% were agricultural unskilled labourers	• 14% were agricultural labourers
 11% were non-agricultural unskilled labourers 	33% were non-agricultural unskilled labourers



Fig 4: Seasonal transition in food security status in 2023 (% of households)



Household food consumption

Declined level of food consumption was the key driver behind deterioration in food security compared to March 2023.

During Aug-Sep 2023, 26 percent of households were consuming inadequate diet calculated as a sum of poor and borderline consumption. This is a 5-percentage point increase compared to March 2023, where 21 percent of households were not consuming adequate diets.

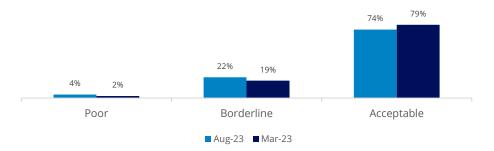


Fig 5: Food consumption levels as a percent of households

Household food consumption is calculated using Food Consumption Score (FCS) indicator which takes into account diet diversity and food frequency of the food groups consumed. Households are asked about the number of days each of the 8 food groups was consumed in the last 7 days preceding the survey. Based on the responses, a score is calculated for each household and a fixed threshold is used to then classify them as having either poor, borderline or acceptable consumption.

Inadequate food consumption in the estate sector is highest at 42 percent of households.

This is followed by the rural sector at 28 percent and the urban sector, which has the lowest levels of inadequate food consumption at 13 percent. Compared to March 2023, more households in rural and estate areas had inadequate food consumption while consumption levels remained stable in urban areas.

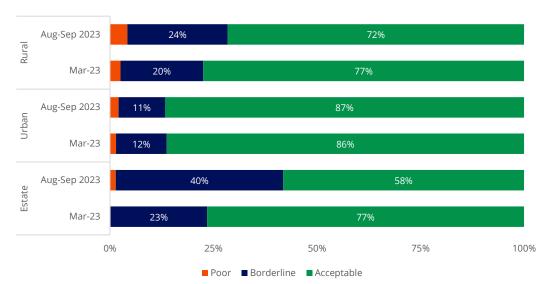


Fig 6: Food consumption levels by sectors as percent of households





Almost one-third of female-headed households (31 percent) consumed inadequate meals, compared to male-headed households (26 percent).

This is a deterioration compared to March 2023, where nearly 20 percent of female-headed households were experiencing inadequate consumption. Inadequate consumption in male-headed households, on the other hand, has remained similar compared to March 2023.

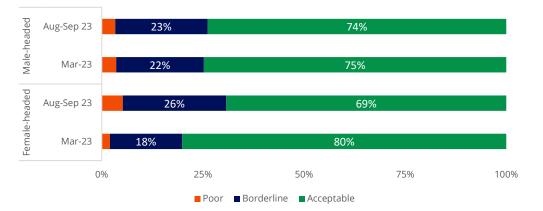


Fig 7: Food consumption levels, by sex of household head (% of households)

The result shows that female-headed households face greater volatility in their food consumption levels throughout the year compared to male-headed households which could be indicative of their inability to cope with seasonal shocks.

The proportion of households with inadequate food consumption declined with an increase in monthly per-capita expenditure. For example: For Aug-Sep 2023, the lowest expenditure group (1st quintile) had 55 percent of households with inadequate food consumption which is significantly higher than the largest expenditure group (5th quintile), at only 9 percent.

Per capita expenditure quintiles were calculated by asking households detailed information about their total food and non-food expenditures in Sri Lankan Rupees (LKR) over the reference period of 30 days. Expenditure quintiles were then created by dividing the total monetary value into five classes.

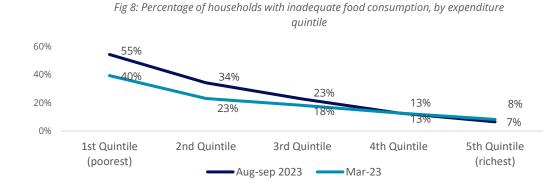
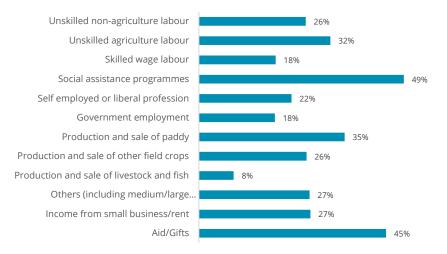


Fig 9: Percentage of households with inadequate food consumption, by income groups in Aug-Sep 2023



Households that relied on social assistance exhibited the highest prevalence of inadequate food consumption, standing at 49 percent. This was followed by the households depending on aid/gifts as their income source. Moreover, a significant percentage of agricultural producers also experienced challenges with food access, notably higher compared to March 2023 highlighting the seasonal factors affecting food access. Similarly, households relying on unskilled labour also showed elevated levels of inadequate food consumption.



The household daily dietary intake mainly consisted of cereals, oil, sugar and vegetables.

In general, dairy products, meat and fruits were consumed only around three or less than three days a week. This consumption pattern followed a similar trend for both rounds. Food groups consisting of cereals, vegetables, sugar, and oils were the main constituents of household daily diets and were consumed almost every day by the households (Fig 10).

There were slight differences in dietary patterns between female-headed and male-headed households. Female-headed households, on average, tended to consume slightly lower amounts of all the food groups compared to their male-headed counterparts.

In comparison to March 2023, consumption of meat, fish and eggs, and fruits declined significantly in estate areas (figure 11).

Fig 10: Number of days food groups were consumed in the last 7 days, by sex of household head and total

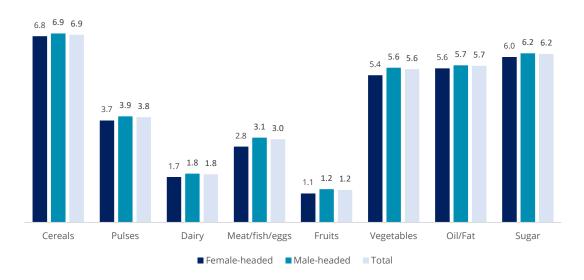


Fig 11: Number of days food groups were consumed in the last 7 days, by sectors

















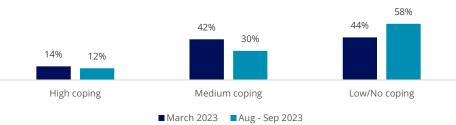


Vulnerability and coping strategies

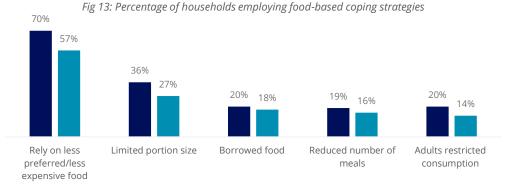
The survey found that 42 percent of households were turning to food-based coping strategies such as skipping meals, eating less preferred food or limiting portion sizes.

This is a considerable improvement of 14 percentage points from March 2023, where 56 percent of households turned to coping strategies. While improved, it is also important to remember that large section of the population are still engaged in coping strategies to put food on the table.





The findings also revealed that the largest proportion of households (57 percent) relied on less preferred food, followed by limiting portion sizes (27 percent) and borrowing food (18 percent) during Aug-Sep period.



March 2023 Aug - Sep 2023

During Aug-Sep period, nearly five in ten female-headed households (48 percent) were turning to food-based coping strategies, compared to four in ten male-headed households (40 percent). This is a 15-percentage point improvement from March 2023, where 63 percent of female-headed households were employing consumption-based coping strategies.

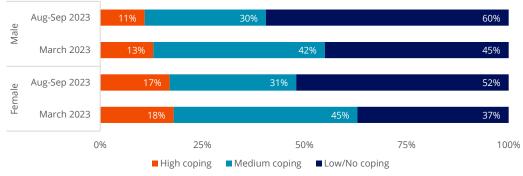


Fig 14: Percentage of households adopting to food-based coping mechanisms by gender

However, a deeper comparison between the survey results reveals a concerning observation; the percentage of households employing high coping has remained the same over the months (March: 18 percent, Aug-Oct: 17 percent). This shows that there are still sections of population that exhibit high vulnerability to food insecurity over longer periods of time and quite possibly, in a state of chronic vulnerability.

The largest proportion of female-headed households (60 percent) consumed less preferred food, followed by limiting portion sizes (32 percent), borrowing food (26 percent) and reducing the number of meals eaten (22 percent). A similar pattern was observed in male-headed households, where over half of the households (56 percent) consumed less preferred food. Male-headed households also limited portion sizes (26 percent) and borrowed food (17 percent).

When confronted by food insecurity, households employ strategies to ensure minimal access to food. According to this survey and former assessments, it is evident that households adjust their consumption patterns in the short- and long-term to cope with the lack of food. Larger segments of female-headed households have consistently turned to food-based coping strategies, compared to male-headed households.



Over eight in ten estate households (83 percent) were adopting food-based coping strategies.

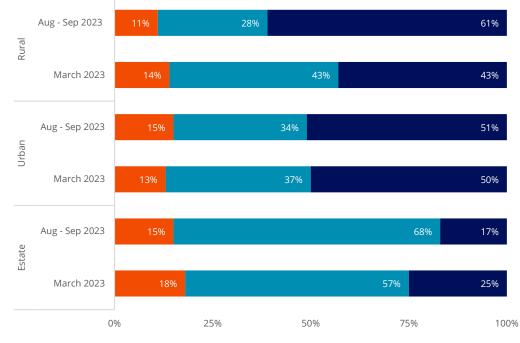
This is an eight-percentage point increase from March 2023, where 75 percent of estate households reported using food-based coping strategies despite overall decline in percentage of households adopting coping strategies. The rural sector had the largest percentage of households that were not engaged in any coping or very low severity coping (61 percent), followed by urban (51 percent) and estate households (17 percent).

All three sectors had households employing "high severity coping" mechanisms with similar prevalence highlighting the presence of vulnerable households in all sectors. Compared to March 2023, the percentage of households with high severity coping remained more or less unchanged compared to Aug-Sep 2023.

There were no significant differences between coping among households in urban sector between two survey periods. The result showed that all three levels of coping categories (low, medium, high) remaining similar in urban sector.

The high, medium and low food-based coping strategy categories are derived based on the frequency and severity of one of the five coping strategies employed by the households as a result of food shortage in the households. These five coping strategies are shown in figure 17.

Fig 15: Percentage of households employing food-based coping strategies by sector



■ High coping ■ Medium coping ■ Low/No coping





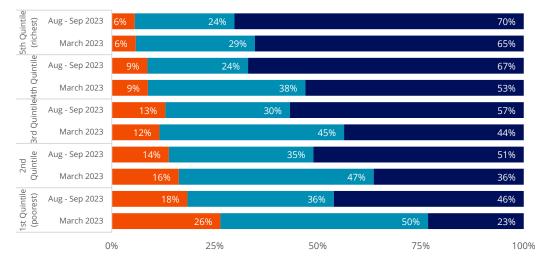
Three times as many households in the poorest quintile had to resort to food-based coping compared to households in the richest expenditure quintile.

Per capita expenditure reflects the purchasing power of households. Higher per capita expenditure generally means people have more disposable income to spend on food. This can indicate greater access to a variety of nutritious foods, contributing to better overall food security.

A significantly larger percentage of households in the first quintile (the poorest households according to monthly per capita expenditure) adopted coping mechanisms (54 percent) in Aug-Sep 2024 compared to other quintiles. This shows that economically vulnerable households are disproportionately affected by shocks and have to resort to coping strategies more often.

Similarly, larger proportion of poorest households were adopting "high coping" (18 percent) compared to other quintiles which reduced progressively with richer quintiles. Only 6 percent of richest quintiles were adopting high coping.

Fig 18: Percentage of households employing food-based coping strategies by expenditure quintile





During Aug-Sep 2023, in terms of income groups, high coping strategies were being mostly adopted by households relying on aid/gifts (26 percent) as their main income source. This was followed by social assistance programme beneficiaries (22 percent) and unskilled non-agriculture labourers (18 percent).

In comparison, larger proportion of households relying on government employment (78 percent) and self-employed (70 percent) did not employ any coping strategy or did minimum level of coping.

Fig 19: Percentage of households (by income group) adopting food-based coping strategies)





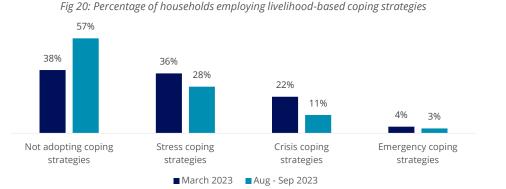


To cope with the lack of food, 43 percent of households employed at least one livelihoodbased coping strategy.

Livelihood-based coping strategies refer to actions that vulnerable populations take as a last resort to manage food shortages and other challenges, often resulting in detrimental long-term consequences. While these strategies may provide temporary relief, they can ultimately exacerbate poverty and food insecurity.

Compared to March 2023, where 62 percent of households adopted livelihood coping strategies, lesser percentage of households adopted these coping strategies during Aug-Sep 2023. The severity of the strategies employed has also slightly decreased; wherein the highest reduction was observed in households engaging in crisis coping strategies, which reduced by 11 percentage points.

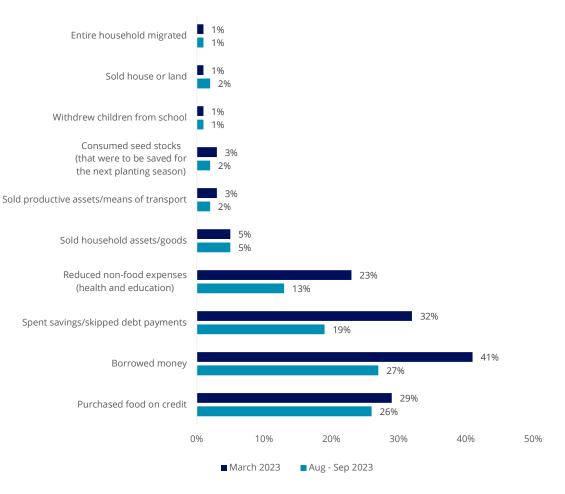
Despite significant improvement, it is important to note that overall prevalence of adoption of coping strategies remains high in Sri Lanka.



Looking at the individual coping strategies employed by the households, the survey results found the highest proportion of households (27 percent) were borrowing money from a formal lender or bank due to a lack of food. This was followed by purchasing food on credit (26 percent) and spending savings or skipping debt payments (19 percent). Five percent of households also sold assets or goods such as furniture or television to cope with the lack of food.

Compared to March 2023, there was a considerable decrease in households adopting different types of livelihood-coping strategies. Except for selling household assets, which remained at 5 percent, all other categories saw at least a marginal decrease. The largest decrease was in the percentage of households borrowing money, which dropped by 14 percentage points.

Fig 20: Livelihood coping strategies adopted by households (percentage of households)



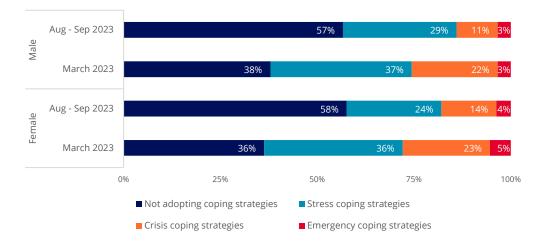
There were no significant differences in the uptake of livelihood-based coping strategies between female- and male-headed households.

43 percent of male-headed households and 42 percent of female-headed households were turning to livelihood-based coping strategies. However, more female-headed households were adopting crisis and emergency coping strategies compared to male-headed households.

However, compared to March 2023, a lesser proportion of both female- and male-headed households were adopting coping strategies. 58 percent of female-headed households were not adopting livelihood-coping strategies, compared to 36 percent in March, an improvement of 22 percentage points. In terms of stress and crisis coping strategies, a reduction was observed in both female- and male-headed households employing the same. These observations indicate an overall decrease in households turning to livelihood-based coping strategies to put food on the table.

There were no significant differences between households adopting emergency coping strategies.





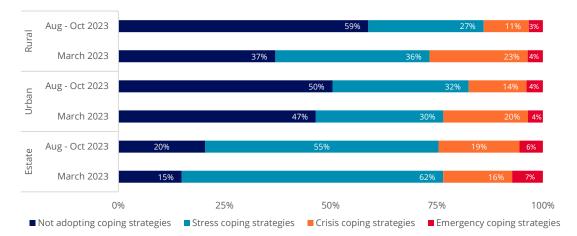




Households across sectors continue turning to livelihood coping strategies.

According to the survey, 80 percent of estate households adopted livelihood-based coping strategies during Aug-Sep 2023. This was followed by 50 percent of urban and 41 percent of rural households. Across all sectors, the percent of households adopting coping strategies declined, most notable in the rural sector of the country. The percent of households adopting emergency coping strategy on the other hand, remained similar to March 2023.

Fig 24: Livelihood-based coping strategy by sector (percentage of households)



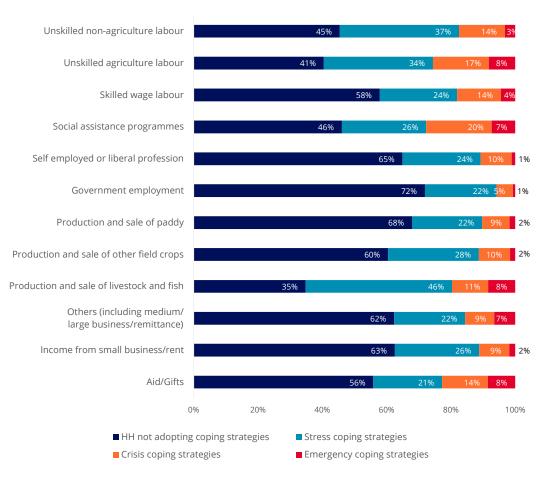
Significant differences were present in the utilization of livelihood-based coping strategies among income groups.

Overall, in terms of income groups, large proportion of farmers relying on livestock production were adopting livelihood coping strategies. This was followed by unskilled agricultural labour (59 percent) and those depending on social protection programmes (54 percent).

Households relying on aid/gifts, production/sale of livestock and fish and unskilled agricultural labour had the highest number of households employing emergency livelihood-based coping strategies, such as migration or selling land/house.

The highest percentage of households not adopting any livelihood-coping strategies were those that relied on government employment (72 percent), followed by production and sale of paddy (68 percent), self-employment or liberal professions (65 percent) and those with incomes from small businesses or rent (63 percent).

Fig 25: Households (by income group) relying on livelihood-based coping strategies



Expenditure on food

Overall, households spent more than 62 percent of total expenditure on food.

Since the economic crisis, the households in Sri Lanka have been consistently spending more than 60 percent of their total expenditure on food, which is quite concerning. When a significant portion of household income is allocated to food expenses, there may be insufficient funds available to cover other essential needs such as housing, healthcare, education, and utilities. This can compromise overall well-being and quality of life for individuals and families.

Looking at the income groups, households relying on social assistance programmes as their income source were spending 73 percent of their expenditure on food which was the highest among all income groups.

Notably, households receiving aid/ gifts spent 70 percent of their expenditure on food. This was followed by unskilled agriculture wage labourers. Households depending on government employment were spending the least percentage (57 percent) of expenditure on food.

Female-headed households spent 65 percent of their income on food. This was higher than male-headed households who spent 61 percent of their income on food.

The share of expenditure on food was highest for the Estate sector households who are known to exhibit much greater economic vulnerability compared to urban and rural sector households.



Total Total 62% Unskilled non-agriculture labour 61% Unskilled agriculture labour Skilled wage labour Social assistance programmes Self employed or liberal profession come group Government employment Production and sale of paddy 63% Production and sale of other field crops 64% Production and sale of livestock and fish 62% Others (including medium/large business/remittance) 62% Income from small business/rent Aid/Gifts Male Gender Female 65% Rural 62% Sector Urban Estate 65%



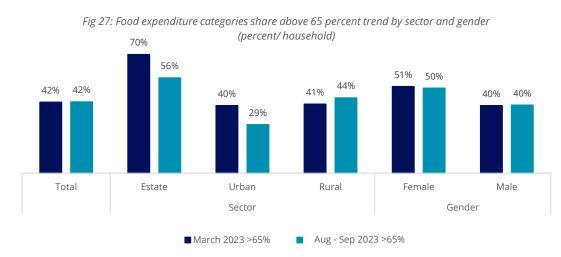
Fig 26: Household food expenditure share by sector, gender and income group



The percentage of households spending more than 65 percent of their total expenditure remains the same in both March and August in 2023.

Additional analyses were done by looking at households whose share of food on total expenditure was more than 65 percent. The results showed that the proportion of households spending more than 65 percent of their total expenditure on food significantly decreased in August 2023 compared to March of the same year in the estate and urban sectors. However, it increased in the rural sector by three percentage points, from 41 percent to 44 percent.

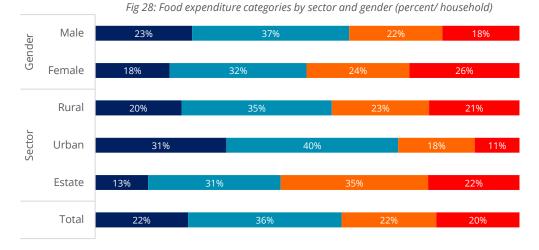
There was no significant change between household heads in food expenditure (over 65 percent of total expenditure) compared to March 2023.



Two in ten households were spending over 75 percent of their expenditure on food.

The proportion of households spending more than 75 percent of their total expenditure on food was the highest in the estate sector and the rural sector. This is almost twice that of the urban sector which was 11 percent.

Food expenditure share was higher in female-headed households than in male-headed households. Among the female-headed households, 26 percent spent more than 75 percent of their total expenditure on food compared to 18 percent for male-headed households.



■ <50% ■ 50%-65% ■ 65%-75% ■ >75%



Annexe One

Sampling methodology

In March 2023, WFP conducted a nationwide household-level food security survey to generate representative estimates at the district level covering all areas including urban, rural and estate sectors. The sampling design employed a stratified two-stage cluster sampling methodology.

For each stratum (district), sample selection was conducted in two stages:

Stage 1: Random selection of 60 Primary Sampling Units (PSUs) or clusters which are GN divisions based on probability proportion to size (PPS) with total households used as measure of size (MoS).

Stage 2: Selection of 10 randomly selected households from each GN Division selected at stage 1.

This gave a sample size of around 600 households for each district, which was calculated based on a 5 percent margin of error with a design effect of 1.5, a confidence level of 95 percent and a prevalence of estimate set at 50 percent. The total sample size was 15,031 households covering all 25 districts of Sri Lanka.

The selection of PSUs at stage 1 was done by using the sample frame provided by the Department of Census and Statistics (DCS) of the Government of Sri Lanka. The GN divisions were used as the PSUs. While doing the PPS-based selection of the GN divisions, the total number of households in the GN divisions was used as MoS.

At stage 2, after reaching the selected GN Division, a complete list of households was obtained from the GN Office, from which a systematic random sampling method was used to select 10 households.

WFP World Food Programme

Following up on this survey, WFP conducted another survey between August and September 2023 by setting up a panel of households through systematic random selection of 30 PSUs in each district, the sample frame for which was based on sampled PSUs of the March 2023 survey. Within each PSU, 10 households were interviewed. These were the same households that were interviewed during March 2023 assessment thus constituting a panel sample with a total sample size of 8633 households. In cases where previously interviewed households could not be found, new households were randomly selected from the GN Office household list to ensure around 10 households per PSU.

During the analysis, the district-level base weights were first created considering the probability of selection of households and non-response rates resulting in the formula below to compute normalized weights for each district:

(N_dist /n_dist)/(N/n), where,

N_dist = Total households in the district

- n_dist = Sampled households in the district
- N = Total households in Sri Lanka
- n = Total sample size used in the assessment



Annexe Two

		Prevalence of food insecurity (percentage households)												
	-	Food secure			Marginally food secure			Moderately food insecure			Severely food insecure			
		Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	
Total		21.6%	20.7%	22.5%	54.1%	53.0%	55.2%	23.7%	22.7%	24.6%	0.7%	0.5%	0.9%	
	Estate	2.9%	1.0%	6.5%	46.5%	38.1%	54.3%	50.6%	42.2%	58.5%	0.0%			
Sector	Urban	26.5%	24.2%	29.0%	58.8%	56.1%	61.5%	14.5%	12.6%	16.5%	0.2%	0.0%	0.5%	
	Rural	21.0%	20.0%	22.0%	53.3%	52.1%	54.5%	24.8%	23.8%	25.9%	0.8%	0.6%	1.1%	
Head of household	Female	17.2%	15.4%	19.2%	51.7%	49.2%	54.3%	29.5%	27.2%	31.9%	1.5%	1.0%	2.3%	
	Male	22.5%	21.5%	23.6%	54.6%	53.4%	55.8%	22.4%	21.4%	23.4%	0.5%	0.4%	0.7%	

					Food Consumpt	ion (percentage ho	useholds)				
			Poor			Borderline		Acceptable			
		Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	
Total		3.8%	3.4%	4.3%	22.4%	21.5%	23.3%	73.8%	72.8%	74.7%	
Sector	Estate	1.4%	0.3%	4.4%	40.4%	32.8%	48.7%	58.2%	49.9%	65.9%	
	Urban	2.1%	1.4%	2.9%	11.2%	9.5%	13.0%	86.7%	84.7%	88.5%	
	Rural	4.2%	3.8%	4.7%	24.2%	23.2%	25.2%	71.6%	70.5%	72.7%	
Head of	Female	5.2%	4.1%	6.4%	25.6%	23.4%	27.9%	69.2%	66.8%	71.5%	
household	Male	3.5%	3.1%	4.0%	21.7%	20.7%	22.7%	74.8%	73.7%	75.8%	

				Fo	ood-based coping sti	ategies (percenta	ge households)				
			Low coping			Medium coping		High coping			
		Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	
Total		58.2%	57.1%	59.3%	29.9%	28.9%	30.9%	11.9%	11.2%	12.6%	
Sector	Estate	17.0%	11.4%	23.5%	68.4%	60.6%	75.7%	14.5%	9.6%	21.2%	
	Urban	51.2%	48.4%	53.9%	34.2%	31.7%	36.9%	14.6%	12.7%	16.6%	
	Rural	60.5%	59.3%	61.7%	28.2%	27.1%	29.3%	11.3%	10.6%	12.1%	
Head of household	Female	51.8%	49.2%	54.3%	31.2%	28.9%	33.6%	17.0%	15.2%	19.0%	
	Male	59.6%	58.5%	60.8%	29.6%	28.5%	30.7%	10.8%	10.0%	11.5%	



					Liv	velihood-bas	ed coping sti	ategies (pe	rcentage house	eholds)			
		HH not	adopting coping	strategies	Stress coping strategies			(Crisis coping strategi	es	Emergencies coping strategies		
		Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl
Total		56.8%	55.8%	57.9%	28.4%	27.5%	29.4%	11.3%	10.6%	12.0%	3.4%	3.1%	3.9%
Sector	Estate	20.5%	14.3%	27.4%	54.9%	46.4%	62.5%	19.1%	13.1%	25.9%	5.5%	2.7%	10.3%
	Urban	50.4%	47.6%	53.1%	32.1%	29.6%	34.7%	13.6%	11.8%	15.6%	3.9%	2.9%	5.0%
	Rural	58.9%	57.7%	60.1%	27.2%	26.1%	28.2%	10.6%	9.9%	11.4%	3.3%	2.9%	3.8%
Head of household	Female	57.7%	55.1%	60.2%	24.4%	22.3%	26.7%	14.2%	12.5%	16.1%	3.7%	2.8%	4.8%
	Male	56.7%	55.5%	57.9%	29.3%	28.2%	30.5%	10.6%	9.9%	11.4%	3.4%	3.0%	3.9%

						Food ex	penditure (pe	ercentage h	ouseholds)				
		<50%			50%-65%			65%-75%			>75%		
		Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl	Estimate	95.0% Lower Cl	95.0% Upper Cl
Total		21.9%	21.0%	22.8%	36.2%	35.1%	37.2%	22.3%	21.4%	23.3%	19.6%	18.7%	20.5%
Sector	Estate	12.3%	7.9%	18.8%	31.5%	24.3%	39.4%	34.7%	27.5%	43.0%	21.4%	15.5%	29.0%
	Urban	30.9%	28.4%	33.5%	40.5%	37.8%	43.2%	18.1%	16.0%	20.2%	10.5%	9.0%	12.3%
	Rural	20.4%	19.4%	21.4%	35.4%	34.3%	36.6%	22.9%	21.9%	23.9%	21.3%	20.3%	22.3%
Head of household	Female	17.6%	15.7%	19.6%	32.2%	29.9%	34.7%	24.2%	22.1%	26.5%	25.9%	23.7%	28.3%
	Male	22.9%	21.9%	23.9%	37.0%	35.9%	38.2%	21.9%	20.9%	22.9%	18.2%	17.3%	19.1%

This brief was developed by WFP, comparing the survey results with the Crop and Food Security Assessment Mission (CFSAM) results collected in March 2023.

Photo credits: Marco Frattini