

# Food insecurity in post-crisis Sri Lanka:

## Evidence from the 2024-2025 BRIGHT Survey

Derek Headey, Elizabeth Stifel, Vivien Hulsen, Dilusha Munasinghe, Immacolata Ranucci, Moe Sabai, Joanna van Asselt and Krishani Weerasinghe

### Key findings and policy implications

We assess food insecurity in Sri Lanka using the BRIGHT National Household Survey data for 2024-2025, which collected data on the Food Insecurity Experience Scale (FIES) developed by the FAO.

- 33% of households in Sri Lanka experienced moderate or severe food insecurity in the 12 months prior to the survey, including 30% moderately and 3% severely food insecure. Since food insecurity was just 9% in the 2019 Household Income and Expenditure survey (HIES), the BRIGHT results imply that food insecurity has more than tripled since the 2022 economic crisis.
- A very high 55% of Estate households (households that reside in housing on an estate/plantation) experienced food insecurity (43% moderate, and 11% severe), compared to 35% of urban and 32% of rural households. Eastern (39%), Uva (39%), and Southern (38%) provinces recorded the highest food insecurity rates.
- Dry-zone households show slightly higher moderate and severe insecurity (35%) than intermediate (31%) and wet zones (25%).
- Households dependent on informal employment are more than twice as likely to report food insecurity (41% moderate, 5% severe) compared to formal employment households (18% moderate, 1% severe).
- Agricultural households are the most food insecure across all livelihoods with 51% experiencing moderate or severe insecurity, including 7% reporting severe food insecurity. Households engaged in NGOs, public, religious organizations (49%), fishing services (49%), and livestock husbandry (44%) also reported high food insecurity.
- Splitting by wealth quintiles, the poorest 20% of households in Sri Lanka have a food insecurity prevalence of 45% including 10% who are severely food insecure. Food insecurity declines as wealth increases but is still high for the second (34%) and middle quintiles (25%).
- The FIES-based indicator reports much higher food insecurity in 2024 (33%) than the WFP's alternative CARI method of estimating food insecurity (16%), though the two indicators are not methodologically comparable.
- FIES-based measures can support more frequent monitoring of food insecurity in Sri Lanka via phone surveys and help assess the impacts of programs such as Aswesuma.

## Introduction

**Food insecurity has become a critically important issue in Sri Lanka since 2022, when the country experienced the worst economic crisis in its history.** In March 2022, the Rajapaksa government defaulted on its sovereign debt, the currency depreciated sharply, and that - combined with bans on fertilizers and a wide range of imported goods – resulted in 80% consumer price inflation by the third quarter of 2022. Inflation, in turn, led to a 25 to 30% decline in real wages (World Bank 2024). Economic recovery has been slow, with real wages in 2024 still 20% below their pre-crisis levels, and almost half of households still in debt for loans they took to cope with these massive income losses.

The food insecurity impacts of this prolonged crisis have been difficult to gauge for several reasons.

**First, there is no single universally used or accepted indicator of food insecurity, and there are many challenges to food insecurity measurement (Headey 2024).** In practice, there are a wide range of methods used by different international organizations, and the Food and Agriculture Organisation (FAO), the World Food Programme (WFP) and the Integrated Food Security Phase Classification (IPC) all use a suite of indicators to capture the multidimensional nature of food insecurity and to ensure greater robustness to the limitation of any single indicator. Food insecurity measurement always needs to be done carefully, ideally with rigorous checks on basic issues like translation and cross-cultural comparability, and ideally in high-quality, large-scale national surveys (Headey 2024).

Second, until 2019 Sri Lanka did not measure food security in any official statistical surveys. In 2019, the Sri Lankan government's Department of Census and Statistics (DCS) measured the Food Insecurity Experience Scale, or FIES (FAO, 2016), in its Household Income and Expenditure Survey (HIES). The FIES is based on eight questions on whether a household incurred any of eight different food insecurity experiences of different degrees of severity in the previous 12 months. **Approximately 12% of Sri Lanka's population was moderately or severely food insecure in 2019 according to the DCS FIES-based estimates.**

After the onset of the crisis in 2022, however, the only national-level food security assessments were conducted by the WFP using the Consolidated Approach for Reporting Indicators of Food Security (CARI) method, a multi-component index based on household food consumption variety and frequency, coping strategies and rough estimates of a household's capacity to meet essential needs (WFP 2021). **Using this entirely different CARI methodology, the WFP estimated that 28% of households were moderately or acutely food insecure in 2022 at the peak of the crisis, while their December 2024 survey found that food insecurity had fallen to just 16%.**

**In this note we report nationally and sub-nationally representative food insecurity results from the 2024-2025 BRIGHT national survey conducted between November 2024 and March 2025, using the FAO's 8-question FIES with the same 12-month recall as the 2019 HIES conducted by the DCS.** Hence the 2024-25 BRIGHT estimates are methodologically highly comparable to the 2019 HIES estimates. In this note we report estimates of FIES-based moderate/severe food insecurity at the national level, and by sector, province, primary occupation (livelihood) and wealth quintiles.

**Our headline finding is that moderate/severe food insecurity in 2024-2025 was 33%, almost triple that of the 2019 HIES estimate (12%). Moreover, food insecurity is exceptionally high among Estate households (55%), informal labor households (45%) and the poorest households in asset ownership terms (45%).** Reducing food insecurity therefore remains a critical policy challenge for Sri

Lanka, requiring contributions from social protection, nutrition, labour, agriculture, industries and services, and many other sectors and ministries. In short, multisectoral solutions to food insecurity are essential.

## The BRIGHT Integrated Household Survey of Sri Lanka 2024-2025

In March 2024, the Sri Lankan Prime Minister requested CGIAR support for the country's "economic revival ... including innovations that integrate livelihoods, food and nutrition security, and resilience." In response, The International Food Policy Research Institute (IFPRI) and The International Water Management Institute (IWMI) launched [The Building Resilient and Inclusive Growth and Holistic Transformation \(BRIGHT\) Project](#) under the CGIAR Science Program on Policy Innovations. Given the absence of recent survey data on Sri Lanka's economic and social welfare since the onset of the 2022 economic crisis, the BRIGHT project implemented the first truly multi-thematic household survey, [The BRIGHT Integrated Household Survey of Sri Lanka](#).

The survey interviewed male and female members from 6,850 households across all provinces and districts of Sri Lanka between November 2024 and March 2025. The BRIGHT survey is representative of urban, rural and estate populations, and of each of Sri Lanka's provinces, and was also implemented in each of Sri Lanka's 25 districts. The survey is nationally and subnationally representative through both its three-stage cluster sampling approach and the use of detailed subnational population data from the DCS to construct household-level survey weights.

Content-wise, the BRIGHT survey builds on large-scale surveys conducted by IFPRI in Bangladesh, India, Myanmar and dozens of other countries (see <https://www.ifpri.org/publications/datasets/>). However, **the BRIGHT survey is uniquely multi-thematic in the Sri Lanka context**, covering household food and non-food expenditure, monetary poverty, education, health, housing, assets, employment and livelihoods, farm and non-farm businesses, women's empowerment, psychological wellbeing, nutrition knowledge and anthropometry, social protection, food, water and energy insecurity, debt, migration, climate change adaptation, and exposure to shocks, among other **topics**. More details can be found on the BRIGHT website: <https://www.ifpri.org/project/bright-sri-lanka/>.

## Measurement of the Food Insecurity Scale (FIES)

Each household surveyed in BRIGHT 2024-2025 answered eight yes/no questions about food access and consumption over the past 12 months, as per the standard FIES module (FAO 2016). The FIES was developed a decade ago through the FAO-led Voices of the Hungry project, using previously developed experience-based food insecurity methods developed in the USA and Latin America and then extended to other regions of the world (see Headey 2024 for an overview). **The logic of experience-based approaches is that different experiences impart information on different types of food insecurity and different severities of food insecurity.**

**Table 1** illustrates these mild/moderate/severe food insecurity experiences for the 12-month recall period used in both BRIGHT 2024-2025 and HIES 2019. The expectation for any FIES is that the questions largely follow an expected ordering – or scaling – such that less severe experiences (e.g. **1: worried about not having enough food**) are significantly more widely reported than more severe experiences (e.g. **8: went without eating for a whole day**). While the prevalences of food insecurity experiences do not uniformly decline from 1 through 8, we do still observe this general pattern. For example, experiences 1-3 vary in prevalence between 38% (**worry**) and 49% (**limited the variety of foods**), whereas more moderate experiences such as **skipping meals** (27%), **ate less than you thought you should** (34%)

and **ran out of food** (23%) were significantly less prevalent. Finally, **hungry but did not eat** was experienced by 12% of households, but the most extreme experience – **whole day without eating** – was experienced by just 4% of households.

**Table 1:** Household-Level prevalence of different food insecurity experiences in the 2024-2025 BRIGHT Sri Lanka survey using the Food Insecurity Experience Scale (12-month recall period)

Food insecurity experiences during the last 12 months	Answered “yes”
1. Was there a time when you or others in your household <b>worried about not having enough food</b> to eat because of a lack of money or other resources?	38%
2. Was there a time when you or others in your household were <b>unable to eat healthy and nutritious food</b> because of lack of money or other resources?	47%
3. Was there a time when you or other members of your household had to <b>limit the variety of foods</b> you ate due to a lack of money or other resources?	49%
4. Was there a time when you or others in your household had to <b>skip a meal</b> because there was not enough money or other resources to get food?	27%
5. Was there a time when you or others in your household <b>ate less</b> than you thought you should because of a lack of money or other resources?	34%
6. Was there a time when your household <b>ran out of food</b> because of a lack of money or other resources?	23%
7. Was there a time when you or others in your household were <b>hungry but did not eat</b> because there was not enough money or other resources for food?	12%
8. Was there a time when you or others in your household <b>went without eating for a whole day</b> because of a lack of money or other resources?	4%

Source: BRIGHT Integrated Household Survey, 2024-2025

While the indicators in Table 1 could be used to measure food insecurity according to specific questions, or according to country-specific classifications of the aggregate FIES score ranging from 0-8, **in this study we use a second-stage statistical transformation approach developed by the FAO (2016) to make food insecurity classifications that are more comparable across countries (Appendix 2).** Another important reason to follow this approach is that the DCS implemented this second-stage approach for the FIES-based food insecurity estimates from the HIES 2019; **so in also using this approach, we maintain comparability of BRIGHT estimates to HIES 2019 estimates.**

While FAO (2016) provides more details on this standardization method, the basic intuition is that the **ate less** experience provides a first threshold to distinguish between mild and moderate food insecurity, while the **whole day without eating** experience provides a second threshold to distinguish moderate from severe food insecurity. Then, the raw FIES scores for all BRIGHT households are calibrated to the FAO’s international scale by equating the mean and the standard deviation of the 8-item BRIGHT FIES score (the national scale) to those of the reference global scale developed by the FAO (2016).

### Key Findings on Food Security in Sri Lanka in 2024-2025

**At the national level, the BRIGHT survey suggests that roughly one in three of households (32.8%) experienced moderate or severe food insecurity in 2024-2025 as measured by the FIES (Table 2).** Most of this group falls into the moderate food insecurity category (29.8%), while 3.1% were classified as

severely food insecure. **Since the 2019 HIES estimates moderate/severe food insecurity at 9.1%, we can infer that food insecurity has increased dramatically in Sri Lanka from 2019 to 2024-2025, almost tripling.** Moreover, we note that the BRIGHT estimate of 32.8% food insecurity is notably higher than the FAO’s December 2024 estimate of 16% moderate/severe food insecurity based on the WFP’s CARI methodology.

**Table 2:** Prevalence of different forms of FIES-based food insecurity in Sri Lanka 2024-2025 using the FAO (2016) method of constructing internationally comparable estimates

	Moderate insecurity	Severe insecurity	Total insecurity (moderate or severe)
<b>National</b>	29.6%	3.1%	32.8%
<b>Urban</b>	31.8%	3.5%	35.3%
<b>Rural</b>	28.5%	2.6%	31.1%
<b>Estate</b>	43.2%	11.4%	54.5%
<b>Western</b>	29.9%	2.4%	32.3%
<b>Central</b>	29.2%	4.0%	33.2%
<b>Southern</b>	35.7%	2.4%	38.1%
<b>Northern</b>	31.0%	3.8%	34.8%
<b>Eastern</b>	32.6%	6.5%	39.1%
<b>North Western</b>	27.6%	2.8%	30.4%
<b>North Central</b>	21.6%	2.8%	24.4%
<b>Uva</b>	34.4%	4.1%	38.5%
<b>Sabaragamuwa</b>	23.2%	1.8%	25.0%
<b>Dry zone</b>	30.2%	4.4%	34.6%
<b>Intermediate zone</b>	28.8%	2.3%	31.1%
<b>Wet zone</b>	29.8%	2.9%	32.6%

Source: BRIGHT Integrated Household Survey, 2024-2025

**The most food insecure sector in Sri Lanka is the Estates where 55% of households experience food insecurity (43% moderate and 11% severe), followed by 35% of urban households (32% moderate, 4% severe) and 31% of rural households (29% moderate, 3% severe).** The exceptionally high food insecurity in the Estate sector is consistent with a wide range of other survey evidence on poverty, food insecurity and malnutrition in Sri Lanka, including the WFP’s CARI-based food insecurity classifications and BRIGHT estimates of monetary and multidimensional poverty. **The high rate of food insecurity in urban areas is striking, but likely reflects the acute vulnerability of urban households to food inflation, which peaked at 95% in September 2022.** Indeed, World Bank poverty simulations also

suggest that a large number of urban households were thrown into poverty due to inflation and other economic disruptions (World Bank 2024), creating a new class of urban poor.

Province-wise, the Eastern province reports the highest rates of food insecurity, followed by the Uva and Southern provinces. Across agroclimatic zones, food insecurity levels are broadly similar, though households in dry zones report slightly higher food insecurity.

**Food insecurity trends from the 2019 HIES to the 2024-2025 BRIGHT survey**

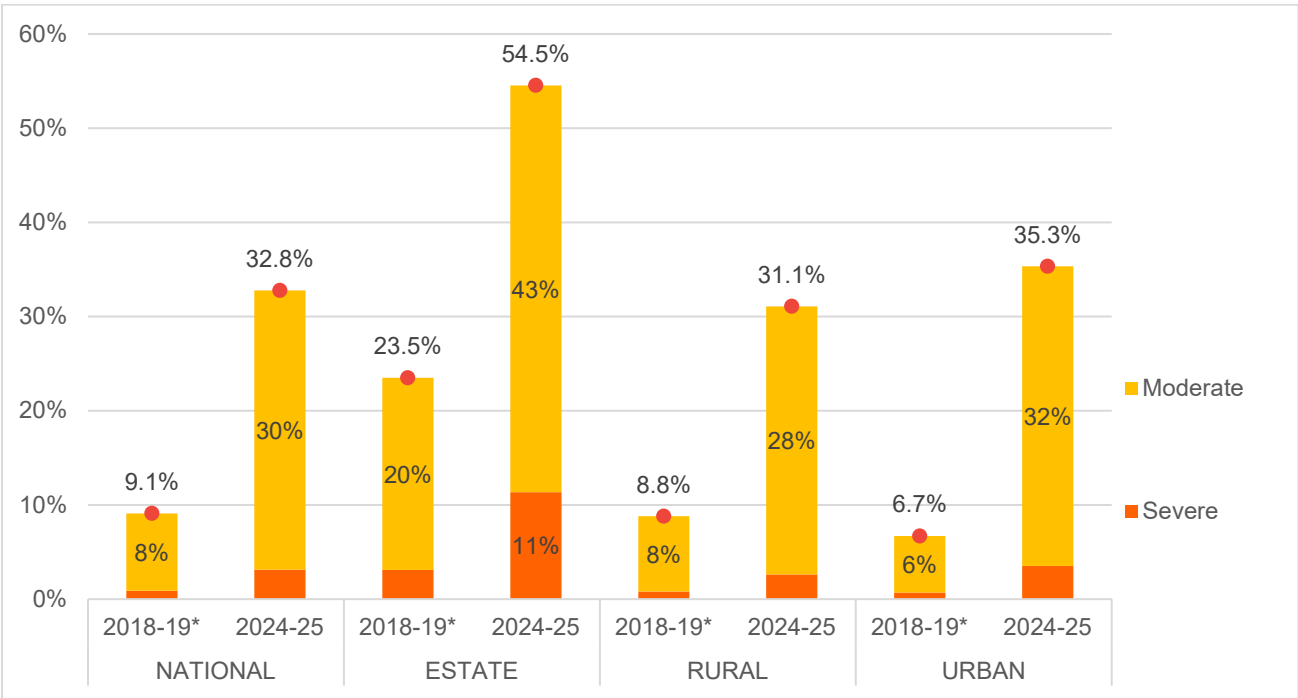
**Figure 1** reports trends in moderate and severe food insecurity between the 2019 HIES and 2024-25 BRIGHT FIES modules, at the national and sectoral level. Note that since the HIES was implemented from January 2019 to December 2019, the 12-month recall effectively means food insecurity pertains to 2018-2019.

**From 2018-19 to 2024-25, moderate/severe food insecurity in Sri Lanka increased from 9.1% to 32.8%, a 3.6-fold increase.**

**In 2018-2019, food insecurity was already much higher in the Estate sector (23.5%), but food insecurity increased to 55% by 2024-25, including a worryingly high 11% of estate households classified as severely food insecure.**

**Food insecurity among rural households also increased sharply from 8.8% to 31.1%, but in both proportional and absolute terms the largest increase in food insecurity was among urban households. In 2018-2019 just 6.7% of urban households were food insecure, but this rose fivefold to 35.5% in 2024-25.**

**Figure 1:** Trends in moderate and severe food insecurity between the 2019 HIES and 2024-25 BRIGHT surveys at the national and sectoral level



Source: BRIGHT Integrated Household Survey, 2024-2025

**Households’ reported frequency of the three more severe food insecurity experiences**

For the three most severe food insecurity indicators, households were also asked how often they experienced these events over the past 12 months (Table 3). Across the three questions, the majority reported that these experiences occurred “only once or twice” in the past 12 months, although a sizable proportion of households responded “in some months” and even “every month”. For example, around 20% of the “ran out of food” and “went hungry but did not eat” sub-samples said they had these experiences every month.

**Among those who reported the most severe indicator of “going a whole day without eating,” 14% said they faced this experience every month, and another 25% faced a whole day without eating in multiple months, while 60% said “once or twice”.**

**Table 3:** Self-reported frequency of three more severe food insecurity experiences: “ran out of food”, “hungry but did not eat” and “whole day without eating”

Ran out of food		
	Sub-sample size	Percent
Once or twice	656	40.1%
In some months	646	39.5%
Every month	303	18.5%
<i>Total</i>	<i>1637</i>	<i>100%</i>
Hungry but did not eat		
	Sub-sample size	Percent
Once or twice	451	50.0%
In some months, but not every month	258	28.6%
Every month	183	20.3%
<i>Total</i>	<i>902</i>	<i>100%</i>
Whole day without eating		
	Sub-sample size	Percent
Once or twice	180	59.6%
In some months, but not every month	75	24.8%
Every month	42	13.9%
<i>Total</i>	<i>302</i>	<i>100%</i>

Source: BRIGHT Integrated Household Survey, 2024-2025

**Food insecurity rates by (in)formality and occupation of the household head**

Food insecurity is strongly linked to formality of employment of the main income earner, which affects job security and non-salary benefits (Table 4). Main income earners that worked in informal sectors face significantly higher insecurity (41% moderate, 5% severe) compared to families of household heads who are employed in the formal sector (18%, 1% respectively).

There are also large variations in food insecurity by occupation of the household head. **Agricultural households, in which estate workers are categorized, are the most vulnerable to food insecurity, with half (51%) experiencing moderate or severe food insecurity, followed by households engaged in NGOs or public/religious organizations (49%) and fishing services (49%).** There is a significantly large proportion of households who work in NGOs or public/religious organizations (18%) that experienced severe food insecurity. In contrast, food insecurity rates are lowest among those employed in education (17%), public service (17%), and health (16%).

**Table 4: Food insecurity by formality/informality and occupation of the main income earner**

Occupation or formality	Moderate	Severe	Food insecurity (moderate/severe)	Sample size
<b>FORMAL VS INFORMAL</b> (contractual status)				
Formal employment	18%	1%	<b>19%</b>	695
Informal employment	41%	5%	<b>45%</b>	1451
<b>OCCUPATIONS</b>				
Agriculture	44%	7%	<b>51%</b>	670
NGO, public, religious organizations	32%	18%	<b>49%</b>	5
Fishery, fish culture	46%	2%	<b>49%</b>	63
Livestock husbandry	41%	2%	<b>44%</b>	29
Non-farm enterprises	33%	3%	<b>36%</b>	2973
Mixed sources	25%	11%	<b>36%</b>	59
Crops production, own	28%	1%	<b>29%</b>	510
Non-farm enterprises	25%	3%	<b>27%</b>	667
Education	17%	0%	<b>17%</b>	92
Public service	17%	0%	<b>17%</b>	626
Health	16%	1%	<b>16%</b>	87

Source: BRIGHT Integrated Household Survey, 2024-2025

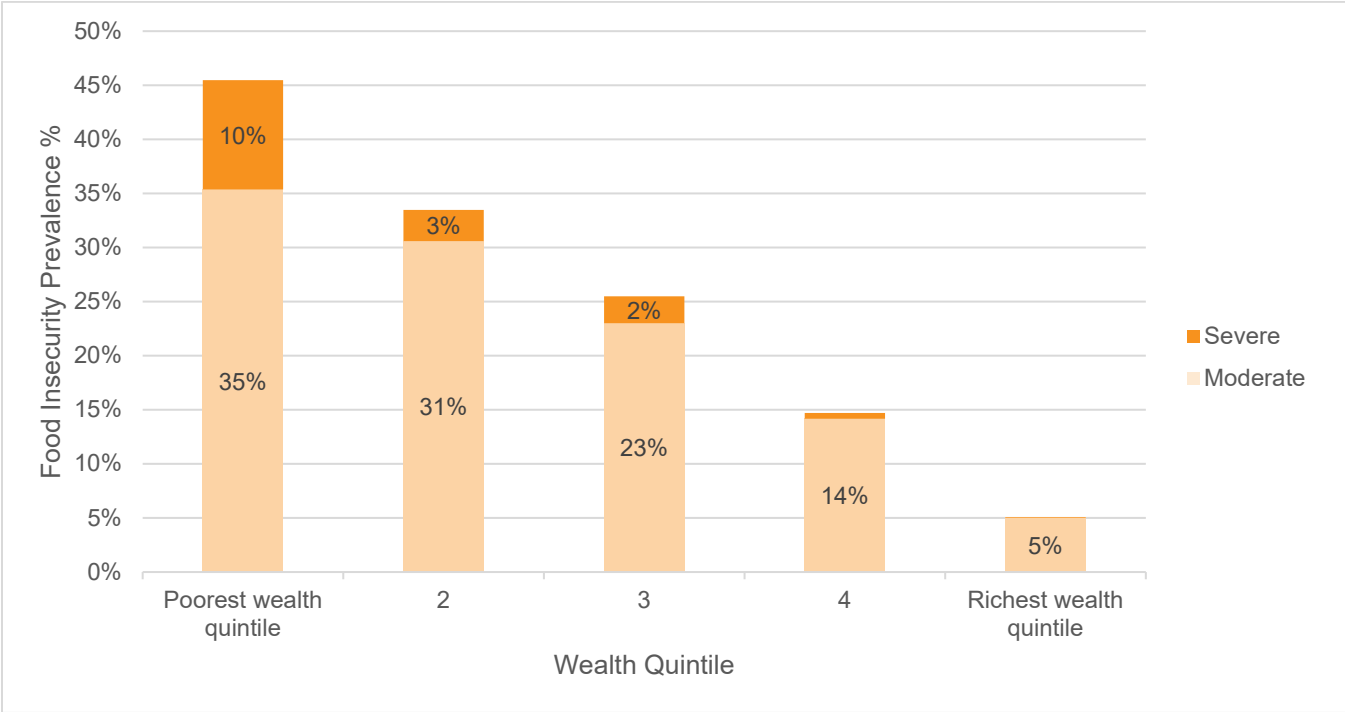
### ***Food insecurity and household wealth***

Wealth or asset indices are an accurate and low-error measure of the socioeconomic status of households. In BRIGHT, we measured wealth as an index of 30 different durable assets and various indicators of housing conditions (e.g. floor, wall, roof materials). **Figure 2** shows that household wealth (by quintile) is strongly and linearly correlated with food insecurity. While this is not surprising, the strong correlation between an objective quantitative measure of socioeconomic status (wealth) and a more subjective

measures of food insecurity provides reassurance that the subjective FIES measure performs well in monitoring genuine food insecurity conditions in Sri Lanka.

**Among the poorest 20% of households in wealth terms, 45% were food insecure, include 10% being severely food insecure, though moderate/severe food insecurity is also very high in the second poorest quintile (34%) and middle quintile (25%).** In contrast, no households in the wealthiest quartile were classified as severely food insecure, and just 5% were classified as moderately food insecure.

**Figure 2:** Food insecurity by household wealth quintile



Source: BRIGHT Integrated Household Survey, 2024-2025

### Policy Implications for Sri Lanka

Food security in Sri Lanka has increased dramatically in the wake of the 2022 economic crisis. BRIGHT data indicate that one in four households were food insecure in 2024-2025, compared to less than one in ten households in 2018-2019, and both moderate and severe food insecurity is worryingly common among Estate households and socioeconomically disadvantaged households in general, as defined by informal or less skilled or remunerative livelihoods, and low levels of wealth or assets.

Some key policy and policy-relevant questions and implications for the government of Sri Lanka and its partners are as follows:

- 1) Consider embedding the FIES within Sri Lanka’s national food security monitoring systems to improve the timeliness, precision, and inclusivity of responses to emerging crises. High-frequency but low cost food and nutrition security phone surveys could be cost-effectively implemented on a regular basis, as in IFPRI’s Myanmar program (for details, see <https://myanmar.ifpri.info/>).

- 2) Future research should compare the validity and accuracy of FIES compared to alternative food insecurity indicators in the Sri Lankan context, including using the multitude of different welfare indicators in the BRIGHT survey (poverty, nutrition, psychological wellbeing, dietary quality).
- 3) Future research could explore the determinants of food insecurity in Sri Lanka, including the impacts of Aswesuma and other policy-relevant programs and levers using quasi-experimental analytical methods, as well as more exploratory research could also identify the predictors of food insecurity in different sub-populations.
- 4) Qualitative research could be used to contextualize the causes, consequences and different dimensions of food insecurity among vulnerable households in the BRIGHT survey.

---

## ACKNOWLEDGMENTS

Derek Headey is a senior research fellow in the Development Strategies and Governance Division of IFPRI, Colombo, Sri Lanka. Ms. Elizabeth Stifel is a Princeton in Asia Fellow at the International Water Management Institute (IWMI), Colombo, Sri Lanka. Dr. Vivien Hulsén is a Postdoctoral Researcher, University of Goettingen, Department of Agricultural Economics and Rural Development, and consultant to IFPRI. Dilusha Munasinghe is a consultant to IFPRI and Masters Student at The University of Peradeniya, Sri Lanka. Immacolata Ranucci is a PhD Candidate in Development Economics at the Università degli Studi di Firenze in Italy, and consultant to IFPRI. Ms. Moe Sabai is a Masters Student at The Tata Institute of Social Sciences, Mumbai and consultant to IFPRI. Joanna van Asselt is a research fellow in the Development Strategies and Governance Division of IFPRI, Colombo, Sri Lanka. Krishani Weerasinghe is a consultant to IFPRI and Masters Student at The University of Peradeniya, Sri Lanka.

---

## REFERENCES

- FAO, 2016. Methods for estimating comparable rates of food insecurity experienced by adults throughout the world. Food and Agriculture Organisation, Rome.  
<https://openknowledge.fao.org/items/e26bf231-39f4-423d-b3a9-49e0f5d9aef9>
- Headey, D., 2024. The state of food insecurity measurement: A mix of methods, and a mix of messages, IFPRI Discussion Paper 2323. International Food Policy Research Institute (IFPRI), Washington DC. <https://cgspace.cgiar.org/items/ab5dbc34-71d1-4e3c-921e-ebf3dac38e5a>
- WFP, 2021. Consolidated Approach for Reporting Indicators of Food Security (CARI). World Food Programme, Rome. <https://vamresources.manuals.wfp.org/docs/the-consolidated-approach-for-reporting-indicators-of-food-security-cari>
- World-Bank, 2024. Poverty, Prosperity, and Planet Report 2024: Pathways Out of the Polycrisis. World Bank, Washington, DC.

## APPENDIX TABLE

**Table A1:** Full results for all classifications of FIES-based food insecurity in Sri Lanka 2024-2025 using the FAO (2016) method of constructing internationally comparable estimates

	No food insecurity	Low insecurity	Moderate insecurity	Severe insecurity	Food insecure (moderate or severe)
<b>National</b>	42.5%	33.0%	21.4%	3.1%	24.5%
<b>Urban</b>	45.2%	27.5%	23.8%	3.5%	27.3%
<b>Rural</b>	43.0%	33.9%	20.5%	2.6%	23.1%
<b>Estate</b>	22.1%	37.9%	28.6%	11.4%	40.0%
<b>Western</b>	46.8%	28.5%	22.2%	2.4%	24.7%
<b>Central</b>	42.7%	33.4%	20.0%	4.0%	24.0%
<b>Southern</b>	28.2%	46.2%	23.2%	2.4%	25.6%
<b>Northern</b>	45.8%	25.2%	25.2%	3.8%	29.0%
<b>Eastern</b>	36.5%	31.9%	25.0%	6.5%	31.6%
<b>North Western</b>	45.8%	32.7%	18.8%	2.8%	21.5%
<b>North Central</b>	42.5%	38.6%	16.2%	2.8%	18.9%
<b>Uva</b>	35.3%	35.8%	24.8%	4.1%	29.0%
<b>Sabaragamuwa</b>	52.0%	28.8%	17.3%	1.8%	19.1%
<b>Dry zone</b>	38.9%	34.0%	22.6%	4.4%	27.0%
<b>Intermediate zone</b>	41.9%	35.7%	20.1%	2.3%	22.4%
<b>Wet zone</b>	44.8%	31.0%	21.4%	2.9%	24.2%

**Source:** BRIGHT Integrated Household Survey, 2024-2025

## APPENDIX 2: CALCULATING THE FIES SCORES

Households provided binary responses (“yes” or “no”) to eight questions about food-related conditions and behaviors that reflect constrained access to food. The classifications of households follow the Food Insecurity Experience Scale (FIES) methodology developed by the Food and Agriculture Organization (FAO), which is based on a Rasch model.

Households were classified into three categories of food insecurity: mild, moderate, and severe. Classification is determined by the severity of the indicators a household experienced. For example, worrying about not having enough food is considered less severe than going an entire day without eating. A good classification therefore should classify a household that reported going to bed hungry or not eating for an entire day as experiencing more severe food insecurity than one that only reported worrying about food or changing their diet.

Each of the eight FIES questions was assigned a severity parameter that indicates the severity of that food insecurity experience. Items with higher severity parameters are less frequently reported, as they represent more extreme conditions.

To do this, we applied a Rasch model on our BRIGHT food insecurity module data. Using the [FIES online platform](#), we calculated the severity parameters for each of the eight items as well as for each possible raw score. We then calibrated our results to the FAO global reference scale by equating the mean and standard deviation of the set of items that were common to both scales. This calibration ensures that our scale is comparable to the global metric.

Next, we compared the adjusted item parameters from our dataset to those on the global common metric. The item “WORRIED” showed an absolute difference that was substantially higher than that of all other items. As a result, this item was considered unique to our dataset and was dropped from the analysis. This approach is consistent with the 2019 Household Income and Expenditure Survey (HIES) process, which also found the “WORRIED” item to be unique and omitted it.

Given the adjusted item severities, we referred to the two thresholds that FIES indicated – ATELESS and WHOLEDAY. We compared the adjusted severity score for each raw score against the thresholds of these two indicators. If the severity of the raw score was lower than ATELESS, then the household was classified as mild food insecurity. If the severity of the raw score was between the ATELESS and WHOLEDAY thresholds, the household was classified as experiencing moderate food insecurity, and any raw score with a severity score above the WHOLEDAY threshold was considered as severely food insecure. As households answer more questions “yes,” they have a higher probability of being moderately or severely food insecure.

This module was asked at the household level and thus the results are at the household level. The FIES also provides instructions on transforming household level results into individual level results to assess the prevalence of food insecurity in the adult population. We found the results at the household and individual population levels to be similar. In this brief, only household level results are shared.

### INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

*A world free of hunger and malnutrition*

IFPRI is a CGIAR Research Center

1201 Eye Street, NW, Washington, DC 20005 USA | T. +1-202-862-5600 | F. +1-202-862-5606 | Email: [ifpri@cgiar.org](mailto:ifpri@cgiar.org) | [www.ifpri.org](http://www.ifpri.org) | [www.ifpri.info](http://www.ifpri.info)

© 2026 International Food Policy Research Institute (IFPRI). This publication is licensed for use under a Creative Commons Attribution 4.0 International License (CC BY 4.0). To view this license, visit <https://creativecommons.org/licenses/by/4.0>.