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Nutrition and dietary quality in Sri Lanka: Insights from the 2024-2025 BRIGHT Survey

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Key findings and policy implications

- **Dietary quality in Sri Lanka – defined in terms of consumption levels of different healthy food groups – falls well short of the Sri Lankan Ministry of Health's 2021 Food-Based Dietary Guidelines (FBDG) targets, with clear imbalances across food groups.**
- **Heavy dependence on starchy staples.** Starchy foods dense in calories but sparse in nutrients provide over 60% of total energy consumption, highlighting a strong over-consumption of rice.
- **Low consumption of nutrient-rich foods.** Intakes of fruits, dark green leafy vegetables (DGLVs), and legumes are at only about one-third of the recommended levels.
- **Some households report zero consumption of healthy food groups.** More than 30% of households report zero consumption of dairy foods in the past 7 days, while 15% report zero consumption of dark green leafy vegetables, and 5% zero fruit, indicating that important foods are absent from many household diets.
- **Multidimensional dietary deprivation.** Nearly all Sri Lankan households are deprived in at least one food group. A typical deprived household falls below the reference threshold in six to seven of eight food groups and consumes only about 37% of the recommended amounts for the foods in which consumption is lower than recommended.
- **Significant dietary inequality across sectors.** Dietary deprivation is most acute in the estate sector, while rural and urban areas fare moderately better.
- There is a clear need to **promote healthy dietary diversification**, especially higher consumption of fruits, legumes, vegetables and dairy, while moderating excess consumption of starchy staples.
- **Institutionalize regular monitoring of diet deprivation**, using the Reference Diet Deprivation (*ReDD*) index and other dietary indicators to guide targeted nutrition interventions.
- **Support further research on the drivers of dietary patterns in Sri Lanka to better understand its determinants and differences between sectors.**

Background

In this policy note, we use nationally representative data from the BRIGHT Integrated Household Survey of 2024-2025 to assess dietary patterns and nutrition adequacy in Sri Lanka. We first examine how current diets align with national dietary guidelines, using food consumption per adult equivalent (AE) to quantify dietary imbalances and nutrient inadequacies across the population. **We then measure *ReDD*, a recently developed composite diet index that captures the incidence, breadth, and depth of dietary deprivation across multiple healthy food groups relative to a reference diet (Pauw et al., 2023), such as the Sri Lankan Ministry of Health's 2021 food-based dietary guidelines (MOH 2021).**

The BRIGHT survey provides a highly reliable and suitable data source for household dietary analysis. Its level of detail allows for disaggregation not only by food group but also by rural, urban and estate r. This is particularly valuable in the wake of Sri Lanka's 2022-present economic crisis, which disrupted household incomes, food access, and consumption habits (Institute of Policy Studies, 2022; World Food Programme, 2024). Following the 2022 sovereign debt default and the subsequent depreciation of the Sri Lankan rupee**, domestic food prices rose sharply, peaking at 95% year-on-year inflation in September 2022** (Breuer et al., 2025; World Food Programme, 2024). At the same time, agri-food system was severely disrupted by restrictions on key imports such as fertilizers, fuel and other agricultural inputs, resulting in a 40% reduction in rice yields (Institute of Policy Studies, 2022).

International evidence has established that major economic crises can severely elevate the prevalence of wasting and stunting, and lead to major deteriorations in dietary quality (Headey and Ruel, 2022, 2023). Malnutrition in younger children is especially harmful to their own development, but also costly to economies and societies at large. Moreover, low quality diets among the entire population are the leading risk factors for disease and mortality worldwide, accounting for approximately one in five deaths (Afshin et al., 2019; Grace, 2023). In Sri Lanka, diet-related non-communicable diseases play an important role in the national disease burden; for example, cardiovascular diseases and diabetes together accounted for 43% of all deaths in Sri Lanka in 2016, and both diseases are strongly linked to high consumption of unhealthy foods and low consumption of protective foods like fruits and vegetables (World Health Organization, 2018).

In this context, Sri Lanka's 2021 food-based dietary guidelines serve as a nationally endorsed benchmark for assessing diet quality. These guidelines recommend intake levels for major food groups and are accompanied by visual aids and public health messaging (Ministry of Health, 2021).

The BRIGHT Integrated Household Survey of Sri Lanka 2024-2025

In March 2024, the Sri Lankan Prime Minister requested CGIAR support "for 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 implements the first ever 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 representative through both its three-stage cluster sampling approach and the use of subnational population data from the DCS. 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 was 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/.

In this study, we primarily use the food consumption and expenditure module, which asked households to recall their expenditures and consumption of 142 different food items over the past 7 days. Each food item is converted to edible portions and calories using food composition data constructed by nutrition specialists at Wayamba University of Sri Lanka. We note that household consumption data is not the Gold Standard for dietary assessment; unfortunately, though, the Gold Standard 24-hour individual dietary recall is costly, time-consuming to implement, and requires specialized skills. These constraints often limit the scope of household surveys, reducing the range of socio-economic data that can be collected alongside nutrition information. Nevertheless, although the BRIGHT survey relies on household rather than individual-level consumption estimates, it enables a richer investigation of dietary patterns because of its multidimensionality.

Operationalizing Sri Lanka's Food-Based Dietary Guidelines

We assess dietary quality by using the Sri Lankan food-based dietary guidelines developed by the Sri Lankan Ministry of Health (MOH). **Table 1** illustrates target calories based on the MOH recommended portion sizes by food group per adult equivalent in calories per day.

Table 1: Sri Lanka 2021 MOH Food-Based Dietary Guidelines

Food group	Recommendations per adult equivalent	Share
Fruit	184 (kcal/day)	7.90%
Vegetables	89 (kcal/day)	3.82%
Dark green leafy vegetables	45 (kcal/day)	1.93%
Starchy staples	1066 (kcal/day)	45.75%
Legumes	438 (kcal/day)	18.80%
Animal-sourced foods	184 (kcal/day)	7.90%
Dairy	86 (kcal/day)	3.69%
Nuts, seeds and oil	238 (kcal/day)	10.21%
Total	2330 (kcal/day)	100%

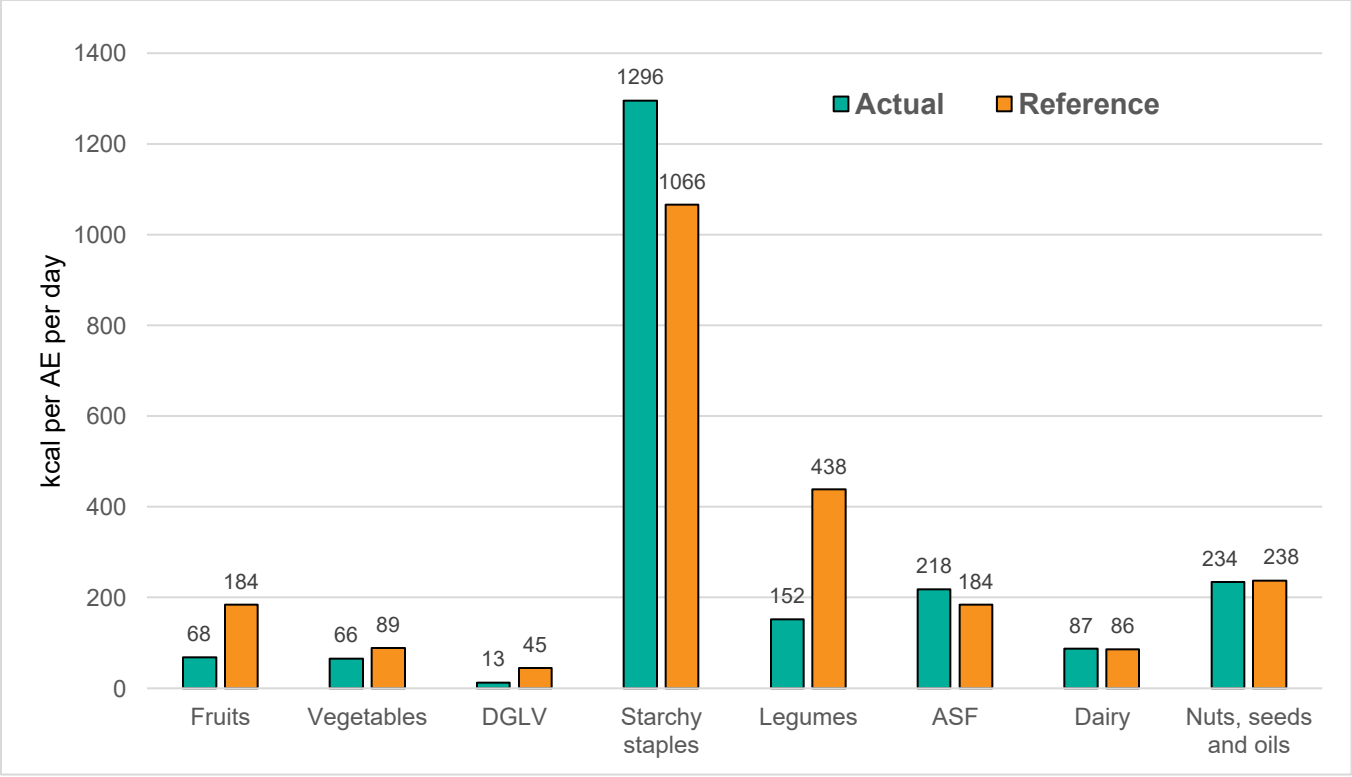
Source: (Ministry of Health, 2021)

These guidelines propose a balanced and context-specific reference diet, which serves as a benchmark for evaluating actual dietary intake within the country (World Health Organization, 2010). A recommended daily intake amounts to 2,330 kcal per adult equivalent, distributed across eight key food groups. These include fruits (184 kcal), vegetables (89 kcal), dark green leafy vegetables (DGLV) (45 kcal), starchy staples (1,066 kcal), legumes (438 kcal), animal-sourced foods (ASF) (184 kcal), dairy (86 kcal), as well as nuts, seeds, and oils (238 kcal).

Deviations of Sri Lankan diets from national MOH dietary recommendations

Diets in Sri Lanka remain highly imbalanced, with excess consumption of starchy staples mainly rice) and under-consumption of most nutrient-dense foods (Figure 1). Consumption of starchy staples in the average Sri Lankan household exceeds the MOH-recommended intake by 230 kcal (21.6%). Animal sourced foods also slightly surpass the recommended levels. In contrast, consumption of nutrient-rich foods such as fruits, dark green leafy vegetables and legumes is noticeably low, at only around one-third of the recommended amounts. Vegetable consumption also falls short of the guidelines, while on average, dairy and nuts, seeds, and oils come close to the national targets.

Figure 1: Actual vs. reference food consumption per adult equivalent (kcal/day) by food group based on the MOH Food-Based Dietary Guidelines

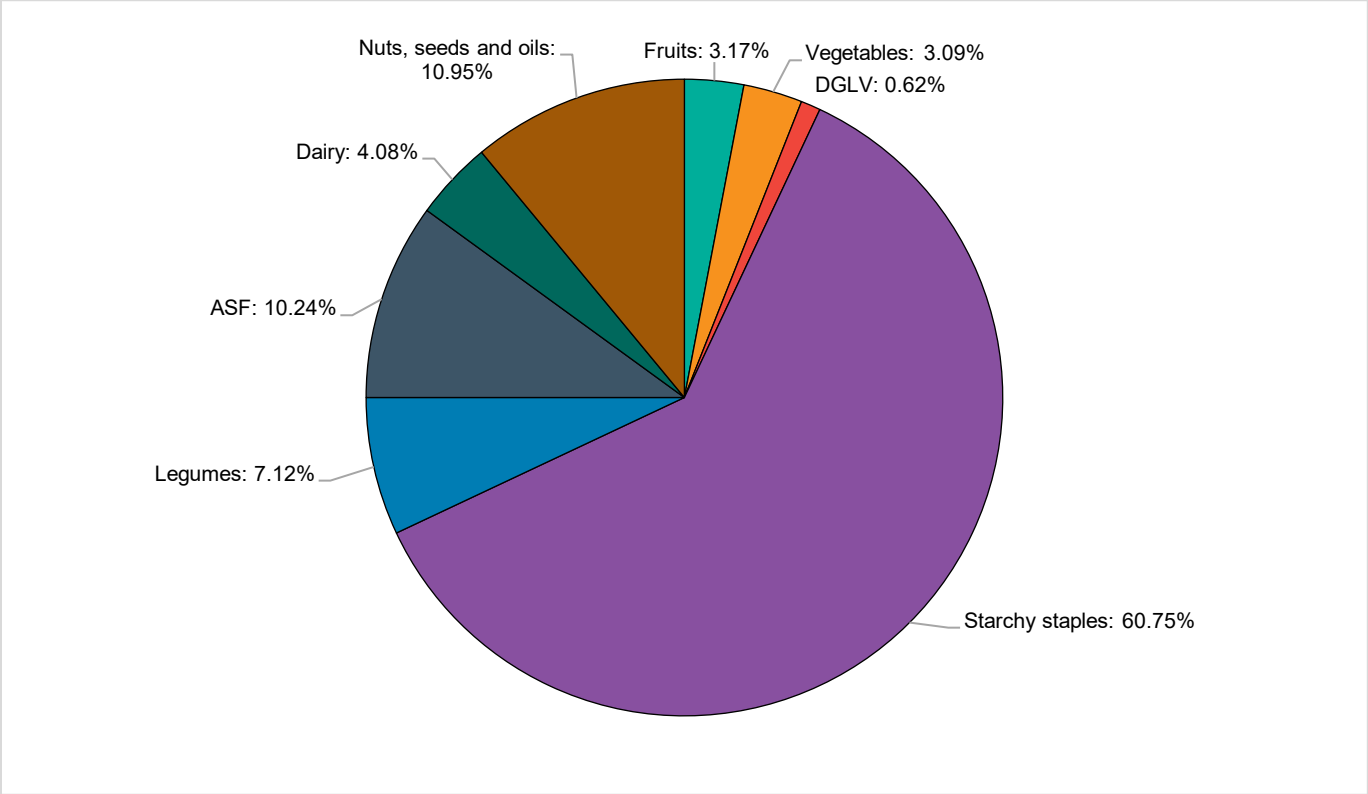


Source: BRIGHT Integrated Household Survey, 2024-2025

Figure 2 illustrates the composition of the average diet in Sri Lanka, disaggregated by food group and expressed as a share of total daily energy intake per adult equivalent. **Starchy staples alone account for more than 60% of total caloric intake**, **while nutrient-dense food groups make up only a modest share of the average daily diet.** Fruits (3.17%), vegetables (3.09%), and dark green leafy vegetables

(0.62%) constitute a small fraction of the diet, while on average, animal (10.24%) and nuts, seeds and oil (10.95%) contribute to a more substantial share.

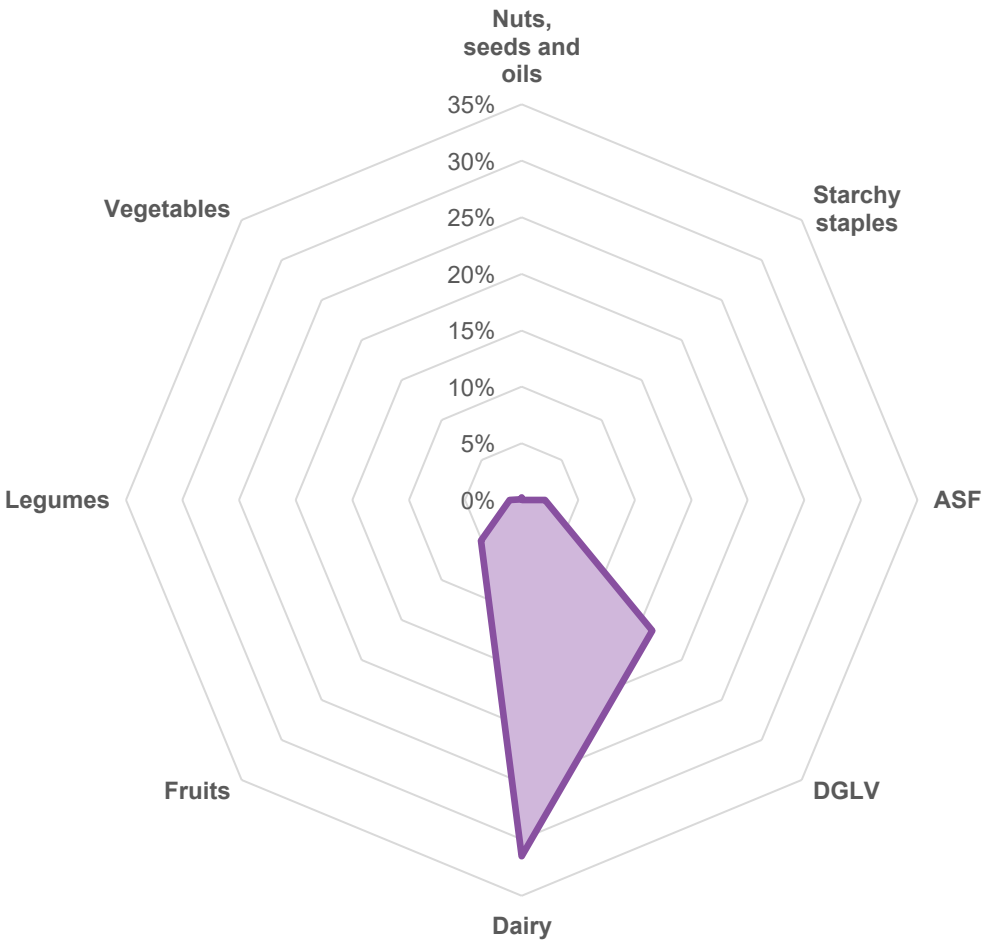
Figure 2: Proportions of average diet composition per adult equivalent (kcal/day)



Source: BRIGHT Integrated Household Survey, 2024-2025

However, as illustrated in **Figure 3**, which displays the share of households with zero consumption by food group, a substantial proportion of the population remains deprived of certain nutrient-rich foods. **Over 30% of households reported no consumption of dairy products in the past 7 days**, while around **15% consumed no DGLVs**, and **5% did not consume any fruit**. This indicates that for a considerable share of the population, key food groups are likely absent from their diets.

Figure 3: Shares of households being fully deprived by food group



Source: BRIGHT Integrated Household Survey, 2024-2025

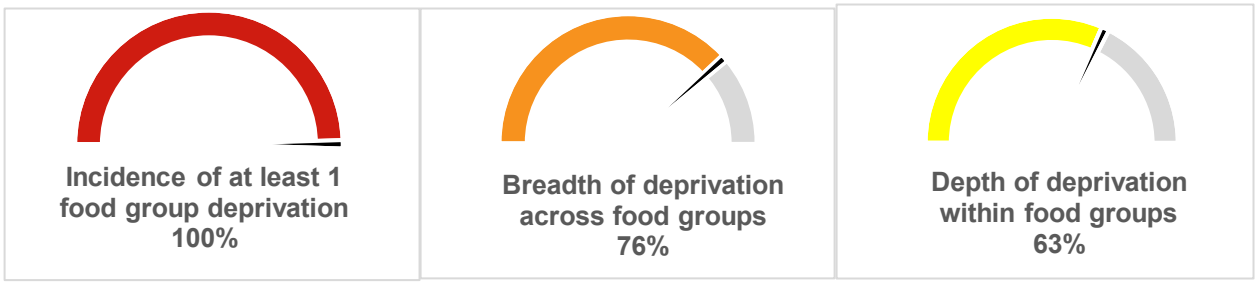
Key findings on dietary deprivation in Sri Lanka using the REDD index

While standard descriptive analyses of food consumption provide important insights into the composition and imbalance of diets, they do not capture the dimensions of dietary deprivation as a single comparable indicator. To address this, we utilize the *ReDD* index as a summary metric that allows for the assessment of the depth of diet deprivation. This index provides insights into diet quality at the national level and across different population groups, reflecting how far observed diets deviate from an ideal reference diet (Pauw et al., 2023).

The *ReDD* quantifies deprivation in terms of three dimensions. First, the *Incidence* of diet deprivation refers to the percentage of people with an inadequate diet relative to the reference diet. Second, the *Breadth* of diet deprivation constitutes the average proportion of food group deprivations that diet-deprived people face. Third, the *Depth* of diet deprivation captures the average consumption shortfall in each food group relative to the reference consumption threshold (Pauw et al., 2023).

Figure 4 shows that, with an *Incidence* of 99.99%, **essentially all Sri Lankan households are deprived in at least one food group by at least some margin, even if that margin is small for some households**. Among those who are deprived, the average household is lacking consumption in about 76% of the food groups. Given that eight food groups are considered, this implies that **a typical deprived household is below the reference threshold in six to seven groups**, indicating a large *Breadth* of deprivation. Moreover, the *Depth* of 63% shows that **an average deprived household consumes only about 37% of the recommended amounts for the food groups in which it is deprived**.

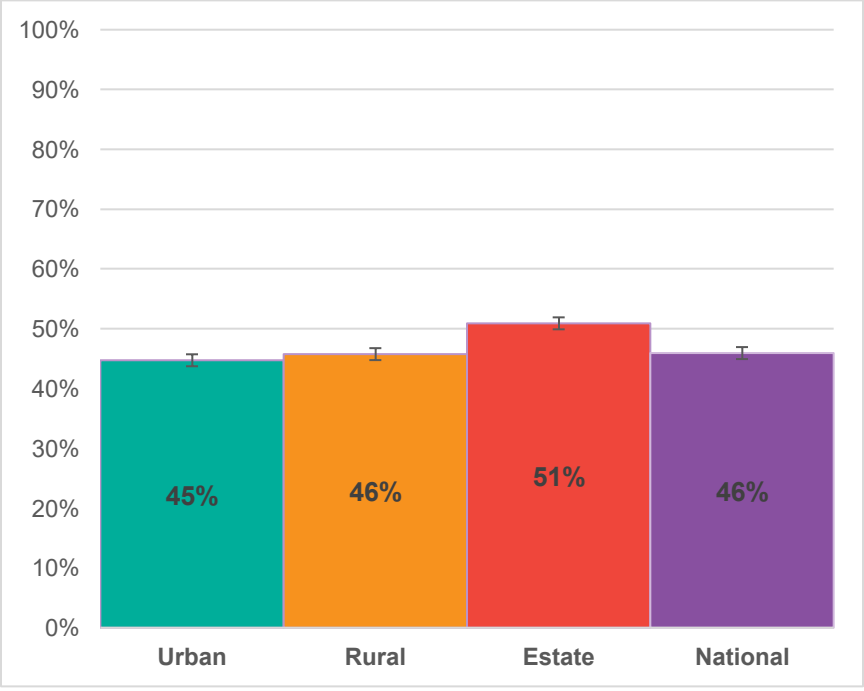
Figure 4: Incidence, Breadth and Depth of Dietary Deprivation



Source: BRIGHT Integrated Household Survey, 2024-2025

By combining the three dimensions into a single composite measure, the *ReDD* index captures the overall extent of dietary deprivation and may range from 0 (no deprivation) to 1 (severe deprivation). Figure 5 shows the estimates. At the national level, the index stands at 0.46. **Deprivation is most pronounced in the estate sector, where the index exceeds 50%, while rural and urban areas show lower values that are close to the national average.**

Figure 5: *ReDD* Index national and by sector



Source: BRIGHT Integrated Household Survey, 2024-2025

Policy implications for Sri Lanka

Sri Lanka faces many diet-related challenges. Our findings reveal that:

a) Diets remain imbalanced, with high dependence on starchy staples, and insufficient intake of nutrient-rich foods such as fruits, vegetables, especially DGLV, and legumes.
b) A relatively high share of the population does not access certain food groups through their diets, particularly dairy.
c) The dietary deprivation index at the national level is 46%, with higher values in the estate sector, where it exceeds 50%.

These results point to several areas where policy attention is needed. In light of these findings, our policy implications are as follows:

(1) Promoting dietary diversity and adequate caloric intake per food group is an important step, particularly for estate and rural communities that face the highest levels of deprivation. The focus should be on including fruits, legumes, vegetables, and especially DGLV and dairy in regular meals, while at the same time emphasizing a reduction of excessive consumption of starchy staples, particularly rice. **There are potentially many institutional entry points for promoting healthier food consumption throughout the life course**, including via prenatal and postnatal care to mothers, early childhood development centers (kindergartens, creches), primary and secondary schools (e.g. school meals but also nutrition education), universities, workplaces, and community groups.
(2) **Moreover, systematically monitoring dietary intake through regular reporting on the *ReDD* index and other dietary indices could provide a simple, comparable measure to track progress over time**, helping identify areas and population groups where dietary deprivation is most severe and guiding the targeting of nutrition and social protection programs more effectively.
(3) **Finally, additional research is needed to better understand the underlying determinants of dietary deprivation in Sri Lanka and its differences between sectors**. While the current analysis highlights the existence of dietary deprivation, it does not explain its causes. Future work should explore the roles of food prices, household incomes, nutrition knowledge and food environments in shaping dietary patterns. Evidence from such research would support the design of more effective measures to make healthy diets attainable for all Sri Lankans.

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