

Ensuring Sri Lankan Food Security towards Zero Hunger: Systematic Literature Review

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The second sustainable development goal (SDG) is “zero hunger, establish food security and enhanced health, and encourage sustainable agriculture”. However, even though Sri Lanka has achieved significant progress towards this goal over the past 15 years, achieving the second SDG is questionable due to the current economic crisis prevailing in the country. A country’s food security changes based on its economic conditions; it is necessary to carry out periodic surveys. As the Sri Lankan economy is currently facing a massive economic crisis, furthermore studies are needed to assess the country’s current food security status. However, lacking review papers on food security hinders the advancement of Sri Lankan food security research. Therefore, the primary objective of this paper is the systematization and categorization of the extant knowledge on food security in the Sri Lankan context of food security research. The study carried out a systematic literature survey. Published papers were downloaded from well-reputed databases such as Scopus, Web of Science, and Google scholar by using the keywords “food security” and “Sri Lanka” (2000-2022). Twenty-six papers were selected for the final review process. Thematic analysis was used to observe specific patterns of food security research in the Sri Lankan context. The paper discovered five major themes that the food security concept has been researched in the Sri Lankan context. Five recurring themes serve as the basis for the synthesis: i) the Role of home gardening in food security, ii) Measurements and determinants of food security, iii) Social protection and food security, iv) Food security under climate change, and iv) Covid-19 and food security. The government, development partners, and other stakeholders will need to innovate and work together in order to address and achieve the zero-hunger goal. Since this paper identifies several research findings and gaps in the field, it noticeably sets the path for future research on the concept of food security in Sri Lanka.

Keywords: *Food Security, Sri Lanka, Sustainable Development Goal, Systematic Literature Review*

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Background

The second sustainable development goal (SDG) is established food security.

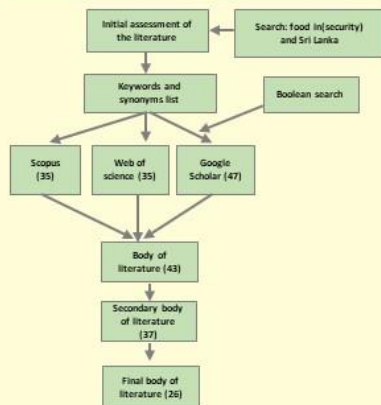
Achieving the second SDG is questionable now due to the current economic crisis prevailing in the country.

Furthermore, studies are needed to access the country's current food security status.

However, lacking review papers on food security hinders the advancement of Sri Lankan food security research.

Primary objective of this paper is the systematization and categorization of the extant knowledge on food security in the Sri Lankan context of food security research.

Methods



Results

Theme 1: Climate Change and Food Security

Climate change could potentially interrupt progress toward a country without hunger.

Climate change and food security have multiple interrelated risks and uncertainties for societies and ecologies (Weerakoon, 2013; Manike and Arachchi, 2015; Esham et al, 2018; Esham and Garforth, 2013).

Climate-smart food system is the best solution for climate change issues (Weerakoon, 2013; Manike and Arachchi, 2015; Esham et al, 2018; Esham and Garforth, 2013).

Theme 2: Social protection and food security

Social protection program plays a major role in ensuring food security in the country.

- Samurधि program
- Thriposha program
- School mid-day meal program
- Saubhagya
- Agriculture development programmes

Theme 3: Covid-19 and food security

COVID-19 threatens access to food mainly through losses of income and assets that prejudice the ability to buy food (CBSL annual report, 2020; Ginigaddara, 2020; Marambe and Silva, 2020).

This pandemic poses several major threats to food availability and stability.

The pandemic is driving some changes that will likely remain part of future agricultural practices.

Results

Theme 4: Measurements indicators of food security

Measuring food security is important to understand the food security status of the people and it will be helpful for necessary institutions to target food and economic aid (Food and Agriculture Organization (FAO),2002; Wickramasinghe, 2009; & Rathnayake et al., 2012).

The most common key indicators used to analyze food insecurity are:

- The Dietary Diversity Score (DDS),
- Coping Strategy Index (CSI), and
- Food Insecurity Experience Scale (FIES)

Theme 5: Home Gardening and Food Security

Promotion of home gardens as an eco-friendly sustainable agricultural practice to improve food security (Landreth and Saito, 2014; Kalansooriya and Chandrakumara, 2014).

Species diversity, species density and the food nutrition provided by home gardens are valued as positive (Dharmasena and Wijeratne 1996; Fonseka et al. 2010) not only by quantity but also in terms of quality (Vitamin A, B6 and C, calcium, riboflavin, and iron).

The most common constraints include the problem related to weeds, insect pests, capital, labour, weather-related damage, and access to inputs.



Conclusion

The government, development partners, and other stakeholders will need to innovate and work together in order to address and achieve the zero-hunger goal.

Since this paper identifies several research findings and gaps in the field, it noticeably sets the path for future research on the concept of food security in Sri Lanka.

Theme	Gaps
Climate change	Status of the climate-smart food system in Sri Lanka. Lack of studies available on food access and food utilization concepts
Home Gardening	Lack of research on urban home gardening and food security concepts.
COVID-19	Comparative studies need to explore how COVID-19 changes food production and consumption.
Measurement indicator	Measuring food security using several indicators is critical for a country like Sri Lanka
Social protection	More research needs to explore the efficiency of government social protection on food security

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