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Enhancing Food Security: Lessons from India's Experience for Thailand

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Abstract

This study incorporated documentary research to explore the food security policies of the Republic of India and Thailand. The principal objective of this research is to investigate the food security policies of the government of India and the results are lessons to be applied in Thailand. The central government of India and Thailand's primary and secondary reports and documents were utilized. The agricultural sector play an important role both in India and Thailand. Nevertheless, food security index of India in the decade since 2013-2022 was quite consistent with an average of 56.9. During the same period even if Thailand's food security index seems quite higher than that of India with an averaged of 60.9, Thailand's decade index fluctuated. According to India's food security policies, several programs are included such as the Public Distribution System, Mid-day Meal Scheme, and Antyodaya Ann Yojana (AAY). The National Food Security Act (NFSA), enacted in 2013, marked a significant shift in addressing food security issue by transforming it from a welfare to a right to food. In Thailand, food security is highlighted as one of the United Nations' sustainable development goals. Relevant policies and measures include the National Security Policy and Plan of Thailand (2019–2022), the National Policies and Plans on National Security (2023–2027), and the Thailand Food Management Action Plan, Phase 1 (2023–2027). Study results suggest that Thailand's policies focus on promoting local food production and empowering communities, yet they lack a comprehensive state-supported distribution system similar to those of India's Public Distribution System (PDS) and Antyodaya Anna Yojana (AAY). Currently, in Thailand, there is no extensive nationwide mechanism to ensure the government's subsidised food distribution to its most vulnerable groups. By adopting India's PDS or other similar programs, Thailand could build a more resilient safety net to guarantee equitable access to essential food supplies for those in need. Furthermore, Thailand's policy framework do not establish food security as a legal right, which may pose challenges to consistent and fair food distribution. Implementing legislative measures to make food security a legal entitlement could enhance Thailand's capacity to provide ongoing, dependable support to vulnerable communities.

Keywords: Food Security Policies of India, Food Security Policies of Thailand, Good life and Well-Being, Right to Food

1. Introduction

Food security is presumably one of the critical challenges for the world in 2024 (Andree et al., 2024). In low- and middle-income countries, domestic food price inflation remains high, and in 45 countries worldwide, external food assistance is needed (World Bank, 2024a). According to the 2023 edition of the "State of Food Security and Nutrition in the World" report, in 2022, the number of people facing hunger was between 691 to 783 million people. The increase in the number of hunger people is 122 million when compared to that of 2019 before the Covid 19 pandemic. The number of hunger people in the world was consistent from 2021 to 2022, namely with 7.9 percent of the global population in 2019 and approximately 9.2 percent in 2022. It showed that the number of people facing hunger was above pre-COVID-19-pandemic period. It is anticipated that 600 million people will be malnourished in 2030. From the report, 2.4 billion people or about 29.6 percent of the world population suffered from low to moderate food insecurity in 2022 while 11.3 percent or about 900 million people faced severe food insecurity. In 2021, 42 percent of the global population or about 3.1 billion people could not afford healthy food. As reported by the World Bank (2024b), agricultural development is one of the most dominant apparatuses to end poverty, increase prosperity, and feed a calculated 10 billion people in 2050. However, climate change is another

factor affecting global food security and agriculture from climate-related threats that result in decisive agrifood mutilation (FAO, 2024a; Raza et al., 2021).

The concept of food security has been developed since the 1970s with various definitions. Likewise, for almost 75 years, the right to food has been accepted as an international human right. The most referred and cited definition of food security is the one coined during the World Food Summit in Rome, Italy in 1996,

“Food security is all people at all times have physical and economic access to sufficient, safe and nutritious foods to meet their dietary needs and food preferences for an active healthy life” (World Bank Group, 2024). Based on this definition, food security consists of four main components: food availability, food access, food utilization, and food stability. Details of each component are provided below.

Food availability: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).

Food access: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet.

Utilization: Utilization of food through adequate diet, clean water, sanitation and healthcare to reach a state of nutritional well-being where all physiological needs are met.

Stability: For a population, household, or individual to be food secure, they must consistently have access to sufficient food. This means they should not face the risk of losing access to food due to sudden shocks, such as economic or climatic crises, or due to cyclical events, like seasonal food shortages. Therefore, stability encompasses both the availability and accessibility aspects of food security.

A significant addition to the discourse on food security emerged from the mandate of the Special Rapporteur on the right to food in April 2000 when hunger and food insecurity were issues affecting the entire globe. The State of Food Security and Nutrition in the World (as cited in Mohammed, & Taylor, 2019) reported that over 820 million individuals experienced hunger in 2018. With the anticipated growth in the global population and the increasing pressure on natural resources, this problem is expected to worsen (The Office of the High Commissioner for Human Rights, 2024a). According to the Special Rapporteur, the right to food encompasses having reliable, continuous, and unhindered access either directly or financially to sufficient food of appropriate quality that respects the cultural traditions of the consumer's community. This right supports a life of dignity, free from fear, and ensures physical and mental well-being for individuals and communities alike. This definition aligns with the fundamental principles of the right to food as described in General Comment No. 12 by the United Nations Committee on Economic, Social and Cultural Rights. The Committee stated that the right to adequate food is realized when every person, alone or in a group, has physical and economic access to adequate food or the resources to obtain it at all times (The Office of the High Commissioner for Human Rights, 2024b).

In India, the agricultural sector is one of the extensive sectors in the world, and it is the essence of living for about 55 percent of India's population (India Brand Equity Foundation, 2024). In 2021, agricultural land of Thailand was about 46 percent, according to the World Bank collection of development indicators (as cited in Trading Economics, 2024). It can be said that agriculture has played an important role in both India and Thailand. Based on the definition set by the 1996 World Food Summit, the food security index of India in the decade between 2013-2022 was quite consistent, i.e., 53.7, 56.1, 56.3, 58.3, 57.9, 59.3, 55.1, 56.2, 57.2, and 58.9 respectively (The Mirrority, 2020) with an average of 56.9. Even if Thailand's food security index seemed higher than India with an averaged of 60.9, in the same decade the index from Economist Intelligence Unit for 2013-2022 fluctuated namely 58.9, 59.9, 60.5, 58.3, 58.9, 65.1, 64, 64.5, and 60.1 (Economist Intelligence Unit, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and 2022). As mentioned above, in Thailand and India, agriculture plays a significant role in people's livelihood. Based on the above figures, the food security index of India in last ten years was quite stable while that of Thailand fluctuated up and down. In India, numerous fight-hunger programs, e.g., the Public Distribution System, Antyodaya Anna Yojana and the Mid-day Meal Scheme, have been put into place. Thus, the goal of this study was to examine Indian government programs that support food security to provide recommendations for Thailand's food security strategy.

2. Objectives

The objective of this study is to examine food security programs of the Indian government and identify lessons that could be utilized to support food security policies/programs implementation in Thailand.

3. Materials and Methods

This documentary research examined food security schemes of the Republic of India to provide practical guidelines for Thailand. The qualitative research method was applied through searching relevant primary and secondary documents. Any activities or concepts relating to evolution of food security policies of the Indian government were the key concepts to search for research data. The research methodology could be described as followed:

- (1) Identify research keywords: food security policies of India, food security in India, food security programs/schemes in India, evolution of food security policies of India.
- (2) Identify timeline of relevant documents by setting a starting point from the Green Revolution which has supported the self-sufficiency in food production in India since the 1960's (John&Babu, 2021).
- (3) Identify the online source for searching data from electronic databases (Electronic Database), including databases of important government agencies of the Indian public.
- (4) Select and screen for relevant research (study selection): 1) initially select the research by scanning the title and abstract; and 2) select from the original full texts whose contents were related, associated or aligned with the research keywords and concepts.
- (5) Ensure that the selected study was qualitative and documentary research, and the data collection was made through online. In this research, the data collected from government and private sectors were considered primary and secondary sources, respectively.
- (6) Conduct a systematic literature review to identify, evaluate, and synthesize all data and draw lessons for food security policies, schemes or programs that are suitable for Thailand.
- (7) Triangulate data by using multiple sources; for example, primary documents, i.e., official reports and government publications and secondary documents such as research papers, books, and articles to verify findings and ensure the reliability and validity of the research.
- (8) Include only direct food distribution programs in India that have been in operation for a long time from the past to the present for instance, the Public Distribution System, Antyodaya Anna Yojana, and Mid-day Meal Scheme which have been in operation since 1945, 2000, and 1995, respectively.

4. Results

4.1 Food Security in India

India has made significant strides in expanding food production and establishing sufficient reserves of food grains. Agriculture, including livestock, remains the primary livelihood for over 70 percent of rural Indian households. From 1950 to 2020, India witnessed a remarkable six-fold increase in food grain production, reaching nearly 300 million tons, transforming the country into a net food exporter. Currently, India stands as the ninth largest exporter of agricultural products globally. Moreover, the contribution of agriculture and allied sectors to the total Gross Value Added of the Economy has risen to 20.2 percent between 2020 and 2021 and 18.8 percent between 2021 and 2022 (United Nations in India ,2024).

India ranks among the world's top producers of major agricultural commodities such as rice, wheat, milk, and sugarcane. Despite this agricultural abundance, millions in the country still suffer from hunger. Despite being the world's second-largest producer of food by calorie content, India's ranking in the Global Hunger Index is quite alarming, standing at 111 out of 125 countries; this ranking indicates a "serious" level of hunger among its population. With a population of 1.4 billion, India hosts a quarter of the world's undernourished individuals, with over 190 million people facing hunger. Much of this challenge stems from logistical barriers (VOX, 2024).

Agriculture and its related sectors serve as the primary source of livelihood for the majority of India's population. Seventy percent of rural households continue to rely primarily on agriculture for their sustenance (FAO, 2024b). According to the Press Information Bureau (2024), foodgrain production in India has increased significantly from 50.82 million tons in 1950 to 315.72 million tons between 2021-2022 as shown in Figure 1.

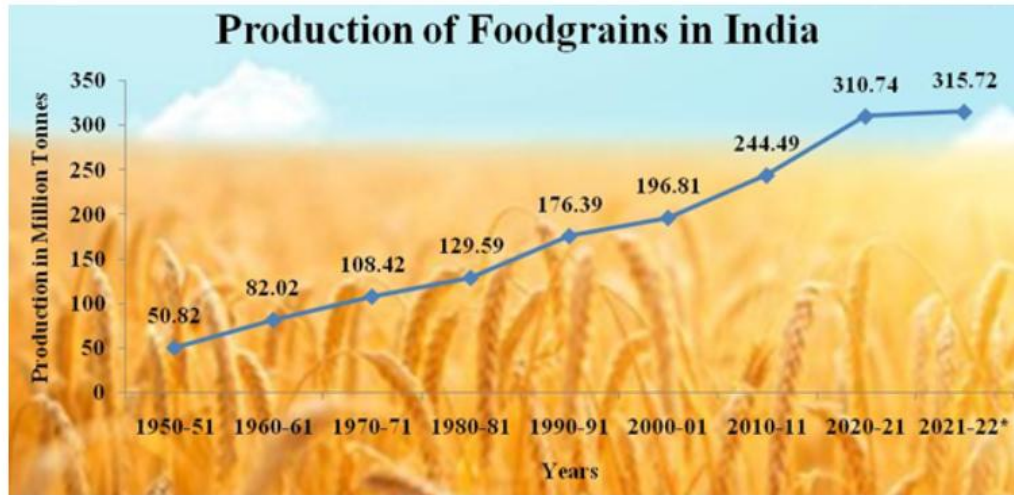


Figure 1 Production of Foodgrains in India
Source: Press Information Bureau of the Government of India (2024)

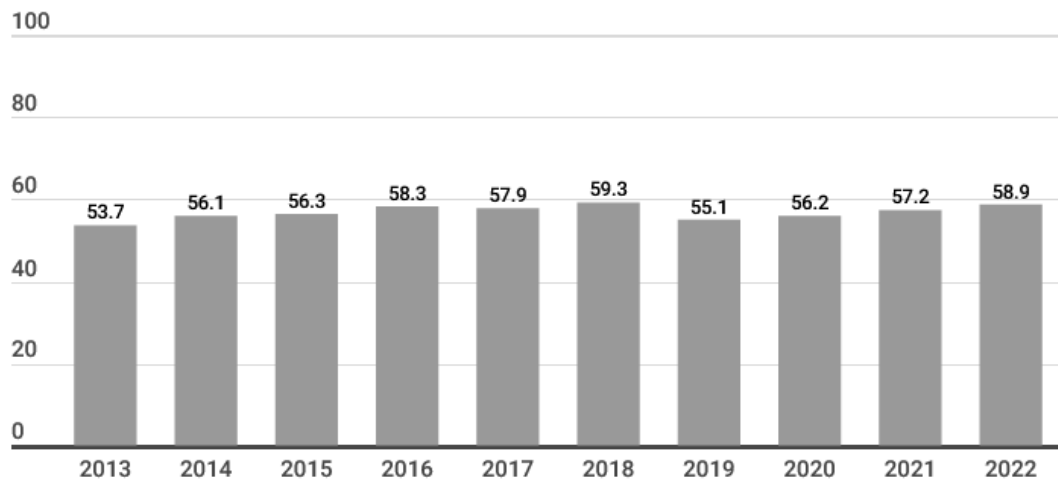


Figure 2 Food security of India from 2013-2022
Source: The Mirrority (2020)

Despite the increase in foodgrain production, the 2023 Global Hunger Index ranked India 111th out of 125 countries, a drop from its 2022 ranking at 107. This drop highlighted a serious hunger situation in the country. Maurya et al., (2022) explained that India's food issue is not about increasing food productivity, rather the food distribution. Indian food security during the decade between 2013-2022 was presented in Figure 2. The overall score was a composite measure derived from a weighted average of four indicators: affordability, availability, quality and safety, and natural resource and resilience.

Figure 2 illustrates the annual food security scores from 2013 to 2022. Overall, these scores show an upward trend with only a significant dip in 2019. The general progression indicates an improvement and positive development in food security over the decade. India's Food Security Index score increased by 1.7 percent in 2022, reaching 58.9 percent. Its global ranking also improved, moving up to the 68th position out of 113 countries in 2022 and showing advancement from the previous year. India's ten-year average score for food security was 56.9 percent.

4.2 Food Security Policies of India

4.2.1 Public Distribution System (PDS)

The Public Distribution System (PDS) was developed as a means of managing food shortages by providing food grains at reasonable prices. It is managed jointly by the central and state/union territory governments (henceforth called “States/UTs”). The distribution of vital goods to the public commenced in the 1960s, amid the inter-war era. After the Green Revolution, the PDS was extended to tribal communities and regions with significant poverty levels, during the 1970s and 1980s. Currently, the PDS allocates essential commodities such as wheat, rice, sugar, and kerosene to States/UTs for distribution. Moreover, some States/UTs supplement these provisions by distributing extra items such as pulses, edible oils, iodized salt, spices, and more through PDS shops. The PDS underwent a thorough restructuring to enhance and streamline its operations, with a focus on improving access to remote and impoverished regions. This led to the introduction of the Revamped Public Distribution System (RPDS) in 1992. In June 1997, the Government of India introduced the Targeted Public Distribution System (TPDS) with a specific emphasis on assisting the impoverished population. Within the TPDS framework, states were mandated to establish and execute robust mechanisms for identifying those in need and ensuring the transparent and accountable distribution of food grains at fair price. Furthermore, the Government of India raised the food grain allocation for Below Poverty Line (BPL) families from 10 kg to 20 kg per family per month (National Food Security Portal 2024a; Dev et al., 2024).

4.2.2 Mid-day Meal Scheme

The National Programme of Nutritional Support to Primary Education (NP-NSPE) was initiated on August 15, 1995, with the objective of improving school enrollment, retention, attendance, and nutritional standards among children. By 2001, it transformed into the Mid-day Meal Scheme (MDMS), offering tailored meals to students in government and government-assisted primary schools. Subsequent to its expansion in 2002 to encompass Education Guarantee Scheme (EGS) and Alternative & Innovative Education (AIE) centers, the scheme underwent revisions in 2004. These revisions included financial aid for cooking expenses and transportation, along with measures for administration, oversight, and provision of meals during summer recess in drought-affected regions. Additional improvements in 2006 and 2007 raised cooking expenditures, nutritional benchmarks, and broadened the scheme to include upper primary grades and Educationally Backward Blocks. In April 2008, the scheme was extended to all areas across the country (Ministry of Education, 2024).

4.2.3 Antyodaya Ann Yojana (AAY)

To enhance the focus and precision of the Targeted Public Distribution System (TPDS), the "Antyodaya Anna Yojana" (AAY) was launched in December 2000 to assist 10 million most impoverished families. Since then, the scheme has undergone three expansions: the first on June 5, 2003, the second on August 3, 2004, and the third on May 12, 2005. Each expansion increased the number of families by five million, thereby expanding the total coverage to 25,000,000 families. AAY aimed to identify the poorest of the poor families among those covered under TPDS in States/UTs and provide them with wheat at Rs. 2 per kg and rice at Rs. 3 per kg, with distribution costs borne by the respective States/UTs. The scheme ensures that the entire food subsidy reaches the targeted groups. Initially, 25 kg of food grains were provided to each family per month; later, this amount was raised to 35 kg per family per month, starting from April 1, 2002. Identification of Antyodaya families and issuance of distinctive ration cards are the responsibilities of the State Governments. Guidelines were issued to States/UTs for identifying the poorest families and additional Antyodaya families under the expanded AAY, focusing on various vulnerable groups including landless agricultural laborers, artisans, slum dwellers, all eligible Below Poverty Line (BPL) families of HIVpatients, and all primitive tribal households (Department of Food and Public Distribution, 2024).

4.3 National Food Security Act 2013

The Indian Constitution does not explicitly provide for the right to food, yet the government has long addressed household food security through the Public Distribution System and the Targeted Public Distribution System. The enactment of the National Food Security Act (NFSA) on July 5, 2013, marks a significant shift from a welfare approach to a rights-based approach to food security. The Act legally entitles up to 75 percent of the rural population and 50 percent of the urban population to receive subsidized food grains under the Targeted

Public Distribution System, covering about two-thirds of the population. Currently, the NFSA is implemented in all States/UTs, with around 800 million people benefiting from highly subsidized food grains out of a maximum coverage of 813.4 million. The identification of beneficiaries is an ongoing process, which includes the removal of ineligible, fake, or duplicate ration cards, as well as adjustments for deaths, migration, and the addition of new births and previously excluded households. The key principle of the Act is its life-cycle approach, which provides special provisions for pregnant women, lactating mothers, and children aged 6 months to 14 years. These groups are entitled to receive free nutritious meals through a network of Integrated Child Development Services (ICDS) centers, known as Anganwadi Centers, and through schools under the Mid-Day Meal Scheme (MDM). Enhanced nutritional norms are set for malnourished children up to 6 years of age. Additionally, pregnant women and lactating mothers are entitled to a cash maternity benefit of at least Rs. 6,000 to partly offset wage loss during pregnancy and supplement their nutrition. In cases where the entitled quantities of food grains or meals are not supplied to eligible persons under the NFSA, these individuals are entitled to receive a food security allowance from the State Government. This allowance is to be paid to each person within a prescribed time and manner set by the Central Government, as governed by the Food Security Allowance Rules (2015) (India Code, 2024) (National Food Security Portal, 2024b).

The National Food Security Mission (NFSM) is a centrally sponsored scheme initiated in 2007, following the recommendations of the agriculture sub-committee of the National Development Council (NDC). The committee emphasized the necessity for enhanced agricultural extension services, technology transfer, and decentralized planning, leading to the conceptualization of the NFSM as a mission mode program. During its eleventh plan, NFSM successfully increased food grain production by 20 million metric tons, including rice, wheat, and pulses. The scheme was extended into the twelfth five-year plan (2012-17) with a target to boost food grain production by 25 million metric tons. Subsequently, coarse cereals and commercial crops were incorporated into the NFSM. Currently, the NFSM is being implemented in 638 districts across the country. The scheme focuses on the following key areas: expanding the cultivation area and enhancing productivity to achieve a sustainable increase in the production of targeted crops; restoring soil fertility and productivity at the individual farm level; and increasing farm-level net income.

Based on the above programs and schemes, India has implemented several key initiatives to enhance food security for vulnerable groups. Each of these programs plays a crucial role in ensuring that food reaches those most in need. Families below the poverty line (BPL) are entitled to receive 35 kg of food grains monthly at significantly reduced prices under Public Distribution System (National Food Security Portal, 2024a). The National Food Security Act transformed PDS into a legal entitlement, and subsidized food grains to about two-thirds of India's 1.2 billion population (Food and Agriculture Organization of the United Nations (FOA), 2024a). Additionally, the Mid-day Meal Scheme serves meals that meet certain nutritional standards, addressing malnutrition among school-aged children. According to Antyodaya Anna Yojana (AAY) scheme, beneficiaries receive 35 kg of food grains per month at even lower prices than those available through PDS. The scheme prioritizes households headed by widows, elderly individuals, and those with disabilities, thereby directly addressing the needs of the most vulnerable populations.

4.4 Food Security in Thailand

The agricultural sector is a crucial pillar for advancing Thailand. The agricultural land in 2022 spans 147,727,451 million rai, representing 46.06 percent of the nation's total area. (Office of Agricultural Economics, 2024). In 2023 there are 3 million agricultural households, and workers in this sector, making up as much as 12 million workers of the country's entire workforce (National Statistics of Thailand, n.d.). According to the Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, 5-year average figures of staple food production in Thailand from 2015-2019 were shown in Table 1.

Table 1 5-Year Average Figures of Staple food Production in Thailand (2015-2019)

List of Staple Foods	Production (Million ton/Unit)	Domestic Consumption (Million ton/Unit)
Rice	22.31	11.67
Egg	14,117	13,930
Broilers	1.69	1.23
Pork	1.44	1.27
Farmed Shrimp	0.33	0.04

Source: Office of Agricultural Economics (as cited in Thasettakij, 2023)

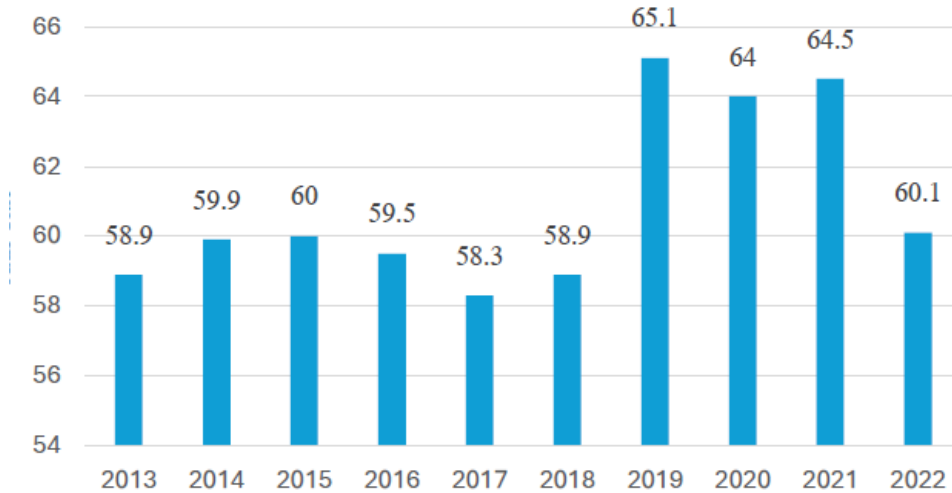


Figure 3 Data of Food Security Index of Thailand since 2013-2022 (The Economist Intelligence Unit (EIU))
Source: The Economist Intelligence Unit (2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and 2022)

Based on Table 1, it is evident that the proportion of products produced within the country over the past five years, on average, was sufficient to meet domestic demand for staple foods commonly consumed by most Thai people, including rice, chicken eggs, broilers, pork, and farmed shrimp. The food security index of Thailand during 2013-2022 from the Economist Intelligence Unit is illustrated in Figure 3

Figure 3 depicts Thailand's food security index scores from 2013 to 2022. Overall, the graph shows fluctuations in Thailand's food security index over the 10-year period. In particular, the graph shows stability with minor fluctuations around the 58.3-60.0 range. A significant rise occurred in 2019, reaching the highest score of 65.1, followed by a slight dip in 2020. After the peak, the scores remain relatively high compared to earlier years, indicating a generally upward trend.

Despite Thailand's abundant resources, Assistant Professor Chol Bunnag cautioned against ignoring food security issues. He referenced a 2021 report by the Food and Agriculture Organization, which indicated that the COVID-19 pandemic heightened food insecurity for seven percent of the population. Additionally, in 2019, there was a 13 percent rise in the number of underweight and frail children under five. While this figure might appear minor, Assistant Professor Chol emphasized that it is concerning given Thailand's wealth of resources (Chaoyong, 2024).

In addition, between 2019 and 2021, in Thailand, approximately 7.3 million people (10.5 percent of the population) experienced severe food insecurity. This figure was twice as high as it had been five years earlier, from 2014 to 2016, when 2.9 million people (4.2 percent of the population) faced severe food insecurity. The situation in Thailand during this earlier period was notably more severe compared to the global average. Globally, the average rate of food insecurity was 7.7 percent from 2014 to 2016, and rose to 10.7 percent between 2019 and 2021. In other words, while the global average increased by 3 percent, Thailand saw a 6 percent rise. According to 2021 national survey using the Food Insecurity Experience Scale (FIES) in Thailand, conducted by Sirinya Poolkerd from the Institute for Population and Social Research at Mahidol University, certain population groups were found to be more vulnerable to food insecurity. These at-risk groups include children (under 15 years), women, and the elderly, all of whom are economically and care dependent within their households (Working group to prepare a report on Thai people's health, 2022).

4.5 Food Security Policies of Thailand

Thailand emphasizes "food security" as one of the United Nations' sustainable development goals. The relevant policies and measures include National Security Policy and Plan of Thailand (2019–2022), National Policies and Plans on National Security (2023–2027), and Thailand Food Management Action Plan, Phase 1 (2023–2027) (Secretary of the National Food Commission, 2023). The National Security Policy and Plan of

Thailand (2019–2022) aims "to establish stable, sustainable, and balanced management of natural resources, the environment, energy, and food security to support national development and mitigate the risks of globalization" (Office of the National Security Council, 2019). This plan highlights sustainable agriculture by means of expanding sustainable agriculture areas, promoting sustainable practices among farmers and agricultural entrepreneurs, and enhancing agricultural production, marketing, standards, capital sources, and supply chains to increase safe food production and build resilience against food crises. Additionally, it emphasizes securing agricultural lands and reducing farmers' loss of land ownership to ensure food security. In practice, the Department of Agricultural Extension promotes home vegetable gardens and community enterprise groups for local and community sales and consumption.

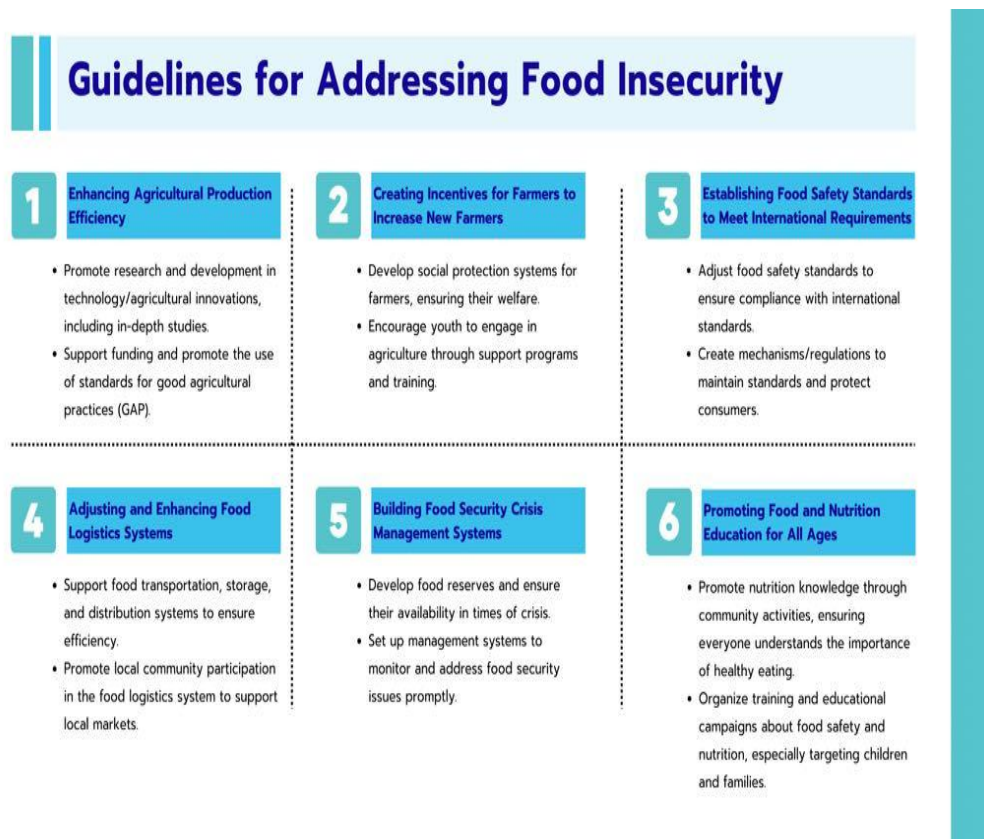


Figure 4 Guideline for Addressing Food Insecurity
Source: Thansettakij (2023)

According to Clause 1.6 in the National Policies and Plans on National Security (2023 - 2027) by the Secretary of the National Food Commission, food security is enhanced by ensuring sufficient, safe, nutritious, and universally accessible food, including maintaining a food reserve for emergencies. This plan also promotes research and development in agricultural production technology and the preparation of a food security crisis management plan to prevent shortages even under normal conditions. Additionally, Thailand's Action Plan on Food Management, Phase 1 (2023-2027) outlines four strategies to achieve this. These four strategies are Food Security, Food Quality and Safety, Food Education, and Management (Secretary of the National Food Commission, 2023) Details of these strategies are shown in Figure 5.

Strategy 1 Food Security: principle is to create sustainable food security and nutrition as the foundation of the bioeconomy through efficient resource management and participation from all sectors.

Strategy 2 Food Quality and Safety: principle is to ensure high quality, safe, and nutritious food for the consumers and also for the domestic and international markets.

Strategy 3 Food Education: principle is to emphasize the process of promoting development and research to create knowledge and food consumption awareness. Use resources for production, and to distribute food in the food chain as well as promote the desired behavior in consuming food for good health.

Strategy 4 Management: principle is to develop the country's food management throughout the food chain in a systematic and efficient manner. Effectiveness strengthens operations in every sector to be able to support changes and various threats efficiently, effectively and in line with international trade rules.



Figure 5 Thailand's Action Plan on Food Management, Phase 1 (2023-2027)

Source: Secretary of the National Food Commission. (2023)

From the above plans, three main food security projects were developed in Thailand: (1) Bangkok Food Bank Center and Thailand's Food Bank Project; (2) Project to Promote Food Security at the Community Level; and (3) the National School-Based Food Program.

4.5.1 Bangkok Food Bank Center and Thailand's Food Bank Project

The Bangkok Food Bank Center project was initiated to address the problem of food waste and excess food by distributing it to vulnerable groups such as elderly people, bedridden patients, disabled people, disadvantaged groups, low-income individuals, and those affected by disasters. Targeted distribution area is 50 districts in Bangkok, and this project will serve as another channel for distributing goods to those in need. In the first phase, this project is carried out in two different forms. The first form relates to food surplus or leftover food from convenience stores that do not sell out its food; this includes unspoiled food that must be thrown away. This food is collected and passed on to vulnerable groups. The second form is food donations (BMA Data Center 2024).

In addition, Thailand's Food Bank Project: Surplus Food Bank Management Project has been launched, and the NSTDA will come to support the work of SOS to drive the operational model to spread to various areas in Thailand. It will be further expanded from the SOS network that has operation base in four provinces: Bangkok, Phuket, Hua Hin, and Chiang Mai. While this project aims to add another 10 provinces by 2026, it supports the establishment of food safety guidelines for donated food (Food Safety Guidelines) to maintain the standards of food safety until the food reaches the hands of recipients. Moreover, more supporters, especially from the private sector within the food or beverage industry, will be encouraged and invited to participate in this project (SD Thailand, 2024).

4.5.2 Project to Promote Food Security at the Community Level

According to Department of Agricultural Extension News Center (2023), in fiscal year 2023, the Department of Agricultural Extension implemented a project to promote food security at the community level with the farmer housewives group through 3 activities:

- Activity 1: Raising Local Community's Awareness of Food Security: This activity aimed to enhance the knowledge and understanding of food security at the household/community level and raise awareness of future food security among the farmer housewife groups. It provided insight into key policies, principles, and operational methods, enabling them to plan and implement food security promotion activities appropriately at the local level.
- Activity 2: Promoting Food Security for Household and Community Consumption: This activity assisted the farmer housewife groups and community members in developing plans for ensuring food security in their households and communities. As a result, food sources for household and community consumption were established.
- Activity 3: Promoting the Establishment of Quality Food Production Sources for Community Income: This activity included planting homegrown vegetables, raising livestock, cultivating mushroom, and processing agricultural products to generate community-level income and create food production sources.

4.5.3 National School-Based Food Program

The program dates back to 1952 when the Thai government began providing free snacks to schools in poorer regions. According to The Glocal (2024), the school lunch in 1993 was set at 5 baht per meal. By the year 2024, the endowment to this program has risen to at least 22 baht per meal, with the highest of 36 baht, depending on the estimate of the school. This implies that from 1993 to 2024, the endowment has expanded by 17 baht (The Glocal, 2024). Since 1993, the government has supplied lunch and one serving of milk to all students nationwide on school days in an effort to guarantee that students obtain the nutrients they need. Each public and private school receives a portion of the money to purchase (provide) nutritious lunches for their students. (Petchoo et al., 2022).

From the three projects above, more than 8.3 million kilograms of surplus food, or 35 million meals, for more than 3,600 communities have been delivered under Thailand's Food Bank Project. Based on the information from the Bangkok Food Bank Center, Phra Khanong District, operations began on August 22, 2023, operating 3 days a week, delivering food to vulnerable groups in community areas. In fiscal year 2024, there are 139 operational targets, which have been carried out 81 times (accounting for 58.27 percent). In total, food has been delivered to 3,399 people (SD Thailand, 2024). Additionally, thanks to the Project to Promote Food Security at the Community Level, food sources for domestic and community consumption were established to enhance the farmers' quality of life, to create jobs, and to generate income (Department of Agricultural Extension News Center, 2023).

5. Discussion

A comprehensive examination of food security strategies in India provides several critical insights relevant to Thailand. India, despite its significant strides in food production and status as a major global food exporter, still faces high levels of food insecurity, as evidenced by its poor ranking on the Global Hunger Index. The nation's extensive programs, namely, the Public Distribution System (PDS), Mid-day Meal Scheme (MDMS), and Antyodaya Anna Yojana (AAY), as well as legislative measures, e.g., the National Food Security Act (NFSA) 2013, have been central to addressing food accessibility and affordability for India's large population. In Thailand, food policies emphasize sustainability and align with the United Nations' Sustainable Development Goals. Key strategies, namely, the National Security Policy and Plan (2019–2022) and the Thailand Food Management Action Plan (2023–2027), target at resilience and crisis preparedness.

While Thailand's food security policies emphasize local food production and community empowerment, they lack comprehensive state-backed distribution systems akin to India's PDS and AAY. There is no extensive mechanism ensuring subsidized food distribution to the most vulnerable on a nationwide scale. Thailand could apply projects similar to India's PDS or targeted schemes to create a robust safety net for vulnerable populations, ensuring equitable access to essential food supplies. According to George, and McKay (2019), even though the India's PDS is not fully effective in improving food security and reducing childhood mortality due to operational

inefficiencies, it plays a significant role in combating hunger and malnutrition, and it is vital for alleviating food insecurity by serving as a safety net that distributes essential goods at subsidized prices. Additionally, the Antyodaya Anna Yojana (AAY) helps reduce living expenses and ensures that beneficiaries have access to nutritious food (Pareek, & Singariya, 2022). Moreover, Thailand's policies do not currently recognize food security as a legal right, which may lead to challenges in ensuring consistent and equitable food distribution. This limits enforceability and long-term policies sustainability. Legislative measures to guarantee food security as a right could be introduced to enhance Thailand's ability to provide continuous, reliable food support to vulnerable communities.

6. Conclusion

Today, we are confronting a significant challenge known as the "Global Food Crisis," which is becoming increasingly severe and widespread. This crisis leads to rising food prices and inevitably results in food shortages which have strong impacts on people worldwide. Thailand has long been recognized as an agricultural nation due to its favorable agricultural conditions, and Thailand's food policies show strength in promoting local production and sustainable practices. Even though Thailand currently has an abundance of food, there are still issues with food distribution to certain vulnerable groups. India's comprehensive food security initiatives could be considered good models for Thailand. Based on the India's experiences of implementing various food security policies, it is suggested that government agencies in Thailand take an active role in managing food distribution to vulnerable populations. Besides, to ensure the long-term and concrete effectiveness of the food security policies, the right to food in Thailand should be recognized as a human right in the same way as the right under the international human rights law. This right will ensure continuous access to resources that will enable individuals to produce, earn, or purchase sufficient food not only to prevent hunger, but also to promote health and well-being.

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Additional Feedback:

1. Please double check and make sure that all in-text citations are in correct format as required by the APA Style 7th edition (or the format required by the journal)
2. The word “policy” should be used in plural form as “policies” given that in each country (either India or Thailand), there seem to be more than one food security policy.
3. Please be consistent when talking about “percent”. It’s better to stick to only one format of this word (“percent” or “%”) for the whole paper.
4. Be consistent in the spelling of this scheme “Midday Meal Scheme” (“Mid-Day or Midday”???)