

Food and Nutrition Security: Policy Implications

Introduction and problem analysis

The United Nations in Sri Lanka in its 09th June 2022 publication has highlighted a multi-dimensional food security crisis in Sri Lanka in which many families are unable to afford basic food commodities. According to the report on Humanitarian Needs and Priorities, Food Security Crisis (UN: 2022), surveys indicate that up to 70 % of households have had to reduce food consumption, including by skipping meals, as food prices have reportedly increased by 73% in the last two years.

On the other hand, given that Sri Lanka is an agriculture-based economy, agriculture presently uses around 40% of the country's land area and consumes over 80% of its freshwater resources. It accounts for 27.3% of the workforce, i.e., 2.2 million, but contributes only around 6.9% of the GDP (Central Bank Annual report, 2021). In comparison, the corresponding numbers in Malaysia are only 11% of the workforce, but 8% of the GDP. Therefore, it is evident that solutions to the aforesaid problems need to derive from understanding the problems of the agriculture sector in the country.

In recognizing the problems in the agriculture sector, it is evident that agriculture sector in Sri Lanka is unproductive in terms of labour. This sector is beset with a multitude of issues, including stagnation, low yield and quality, an excess of unproductive labour, poor efficiency in the use of resources, including land, water, and fertilizer, and uncoordinated and unregulated production leading to alternation of gluts and scarcities accompanied by drastic price fluctuations. Moreover, predominance of small and scattered holdings, heavy post-harvest losses, low value addition and poor integration of agriculture to national, regional and global value chains are among major issues affecting the performance and growth of this sector. These issues are further exacerbated by the lack of a rational, coherent and consistent national policy with a clear sense of direction and depth.

Because of the prevailing economic situation in the country, it is reported that about 20% of children below five years of age are underweight and around 15% are suffering from

Contributors

Prof. Ranjith Senaratne
Dr. Sepalika Sudasinghe
Prof. Ilmi Hewajulige
Prof. Ruchira Cumaranatunga
Prof. Ajith De Alwis

Editor

Dr. R.D. Guneratne

NSF Committee

Mr. Wasantha Anuruddha
Mr. Janaka Karunasena
Dr. J.G. Shantha Siri
Eng. Mahesh Dissanayake

NSF Contributors

Mrs. Dilushi Munasinghe
Mrs. Nadeesha Muhandiram

Designed by

Mrs. Nilusha Perera

chronic malnutrition and wasting, which will affect not only their physical growth, but also cognitive development. On the other hand, according to the Sri Lanka health system review, it is estimated that nearly 75% of deaths in the country are due to Non-Communicable Diseases (NCDs). The prevalence of risk factors for NCDs is significantly high (WHO Regional Office for South East Asia, 2021).

It has been noted that the above situation could be further aggravated in the future. Therefore, the agriculture and food systems should become more productive, more resource-efficient, more resilient, less wasteful, and more profitable and should be export-oriented and linked to regional and global markets. Therefore, it is imperative to identify immediate, short- and medium-term actionable interventions, policy and otherwise, to mitigate the impact of the current economic crisis on food and nutritional security in the country.

available 'super foods,' i.e., moringa, jackfruit, taro etc., and prepare 'My plate' embedding the above concept to encourage nutritious eating patterns. Identify and categorize locally available fruits and vegetables across the whole colour spectrum and make people aware of potential health benefits of consuming a variety of colours in our diet.

2. Promote Agro-industry in parallel to Agriculture. State of the art technologies should be introduced together with ICT applications, e.g., using remote sensing to identify crop or plant diseases, soil conditions etc.
3. Reducing post-harvest losses in all sectors to less than 5% by drafting a road map incorporating SMART objectives and commitments/responsibilities. Especially, the use of proper packaging, transportation, and storage techniques (cold storage

Policy Implications

Short Term:

1. Community awareness programmes through the Ministry of Education in collaboration with the Ministry of Health, specifically on selecting seasonal food / alternative local food varieties and introducing a local food guide pyramid enriched with locally

and cold chain management when applicable) in agricultural value chains will reduce the postharvest losses.

4. Enhance direct marketing by establishing partnerships between producers and buyers to avoid third party intrusion into the system; the government should take action to trigger these partnerships.
5. Government support to the poultry industry/ animal husbandry to produce end-products at reasonable prices to the consumers.
6. Enhance public private partnerships to uplift inland fisheries production and distribution, and imposing subsidies for its production factors like fish fingerlings, nets, feeds, etc. Optimize the use of inland water bodies for fish production by increasing fingerling production through introduction of back yard hatcheries for fingerling production to be used for restocking programmes with community participation.
7. Enhance and brand domestically produced agricultural products as 'a local product' emphasizing their superiority over imported agricultural products among the public.
8. Introduction of postharvest technology to produce processed vegetables, fruits, and fish products for human consumption and to utilize excess agricultural products, trash fish, and agricultural and fishery waste to produce value added food products, animal feed and organic fertilizer for agriculture.

Long Term:

1. Determination of food and feed requirements, food production and food deficit/surplus in respect of the major food crops at district and national levels.
2. Identification of food crops and their varieties, i.e., cereals, pulses, yams, vegetables, and fruits, that are most essential to food and nutritional security and import substitution.
3. Identification of outstanding entrepreneurial farmers in each Divisional Secretariat who have consistently produced relatively high yields, particularly those who adopt good agricultural practices (GAPs) with the support of relevant institutions.
4. Establishment of the crops and their varieties identified under (2) in the agro-climatically and edaphically most suitable areas/ fields by matching crop and land for optimum yield.
5. Making available expensive limited inputs, e.g., chemical fertilizers, pesticides, weedicides, fuel for machinery etc. on a priority basis.
6. Setting up of economic centres in each agriculturally important district for the purchase and distribution of agricultural products mainly within the district, thereby reducing not only fuel consumption, carbon footprint, and price, but also postharvest losses, i.e., 30 - 40%, and quality deterioration.
7. Introduce a new land policy and land reforms to consolidate small

- land holdings as done in S. Korea, Japan, Taiwan, Thailand, Indonesia, and Iran which had similar issues. The antiquated Land Development Ordinance of 1935 is the basic land policy still in force.
8. Retool and reskill the excess marginal and unproductive labour trapped in agriculture to be absorbed by the manufacturing and service sectors which have a high growth potential.
 9. Provide subsidies, crop insurance etc. to the outstanding farmers in high potential areas following good agricultural practices (GAPs).
 10. Formulate strategies and mechanisms for equitable distribution of locally produced and imported essential food items across the country.
 11. Facilitate the nutraceutical industry in the country by means of enhancing research and development, and deriving regulations, government support, and incubator programmes.
 12. Embed circular economy concepts into the food and agriculture system to limit the environmental impact and waste of resources, enhancing efficiency and effectiveness at all stages of the production process.

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NSF Objectives

- Expounding on the urgency of a particular issue for future generations
- Providing balanced information on several policy options dealing with it, and some recommendations on the best option
- Distilling research findings in plain language and drawing clear links to policy initiatives
- Reaping beneficial outcomes from the completed Grants
- Enhancement of knowledge among the relevant stakeholders, policy makers, civil society, development practitioners etc. on policy matters related to Science and Technology which elevate our efforts to the next level, with the influx of viewpoints, opinions, and suggestions