Urban Food Security of the Colombo Metropolitan Region (CMR) in Covid times

Colombo Municipality Region (CMR) consists of a highly complex food system that relies on the supply from distant outstations which literally collapsed during the pandemic situation. A requirement exists for empirical research to derive guidelines and recommendations to increase the sustainability and security in the food supply in CMR during a disaster situation.

**Research Objectives**
Investigate sources of urban food supply in CMR; identify the impacts for the City Region Food Supply System (CRFS) components during the COVID 19 & recommend guidelines & policies to address problems in the supply side of Urban Food System (UFS).

**Design/methodology/approach**
Qualitative thematic data analysis with purposive sampling with 25 respondents, face-to-face interviews performed at the domicile of the CRFS actors, and many case studies.

**Originality/Social Value**
The first study is to use primary data to address the sustainability of UFS in CMR and helping farmers at origins and end urban consumers.

**Findings and Policy implications**
Sustainability of the food security within CMR,
+ Need some form of central and regional intervention during a pandemic to the supply chain.
+ Alternative sources of food supplies - Peri-urban agriculture, Home gardening, Community farming at Grama Sevaka levels.
Dedicated economic centres in Sri Lanka

Author defined UFS framework built upon (Ford, 2008)

Bad transportation – one of the root causes of post-harvest damage

Strategically located ‘dedicated economic centres’

Commission Broker (In the middle of the picture) at Keppetipola Economic Center

Retail business switching to wholesale model

Exploiting the price slumps at outstations, converting retail to the wholesale business model during COVID 19 – Narahenpita Economic Center

The study derived Urban Food Security Framework

Urban Food Security

- Food Quality
  - Nutrition Value
  - Shelf Value
  - Food Safety

- Food Access
  - Affordability
  - Availability
  - Preference

- Food Availability
  - Production
  - Distribution
  - Exchanges

- Value chain efficiency
  - Post-harvest damage
  - Food agricultural practice
  - Price Fixing

Dambulla Economic Center – wholesale vendor about to transport purchase to Colombo

Key Player in UFS discussion – Price fixing by commission broker damage
Efficient and effective vegetable value chain,
• Increase connectivity within value chain partners.
• Increase information transparency of demand & supply.
• Encourage traditional ‘attam kramaya’ which has the character of EOS & resource sharing.

Information sharing platform
• SMS service to communicate with farmers.
• Web platform to communicate with consumers.

Post-harvest damage mitigation,
• Safe sorting & storing.
• Introduce railway for vegetable transport.
• Promote GAP to produce quality products, minimize chemical use, minimize hybrid seed use, create a niche market for organic vegetables.
• Reduce stress on outstation farmers, by urban agriculture.
• Promote Traditional knowledge – ex: maze farming in Guatemala
• PAW- state-of-the-art technology.

Eliminate price fluctuations in the value chain
• A data-driven approach for price-fixing.
• Need an independent authority to determine prices.
• Encourage more alternative trading platforms, ex: Embilipitiya – pola & EC.
• Sorting & grading of vegetables – sorted vegetables need price discrimination to encourage farmers.

Why the use of Wooden Crates rather than Plastic ones?

Abandoned logistic hub in Bandarawela linking road & railway network

Refurbish abandoned and unused/under-utilized railway for vegetable transport

Cheaper, practical solution for safe storing & transport

Article by
Asanka O.R.B.E.W. D. Ovitipana,
Sarith W.S.B. Dasanayaka
Department of Management of Technology,
University of Moratuwa, Sri Lanka.