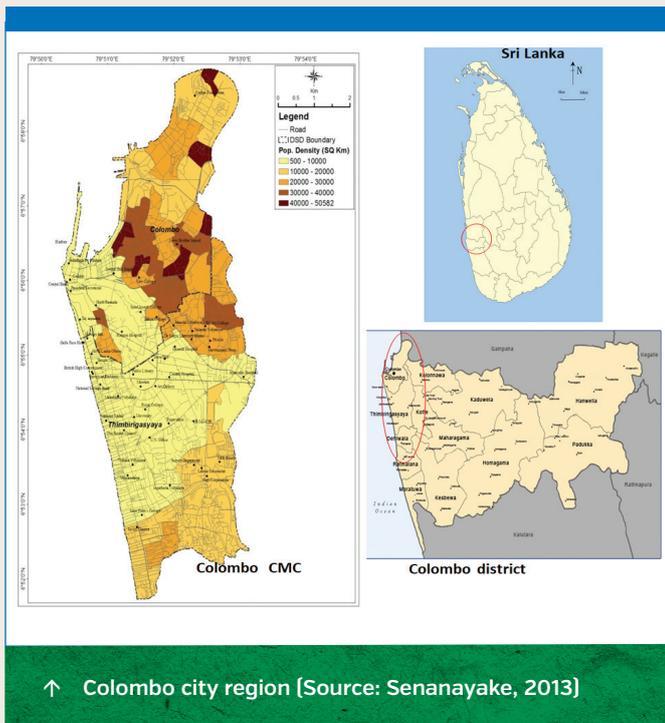


Assessing and Planning City Region Food System

Colombo (Sri Lanka)

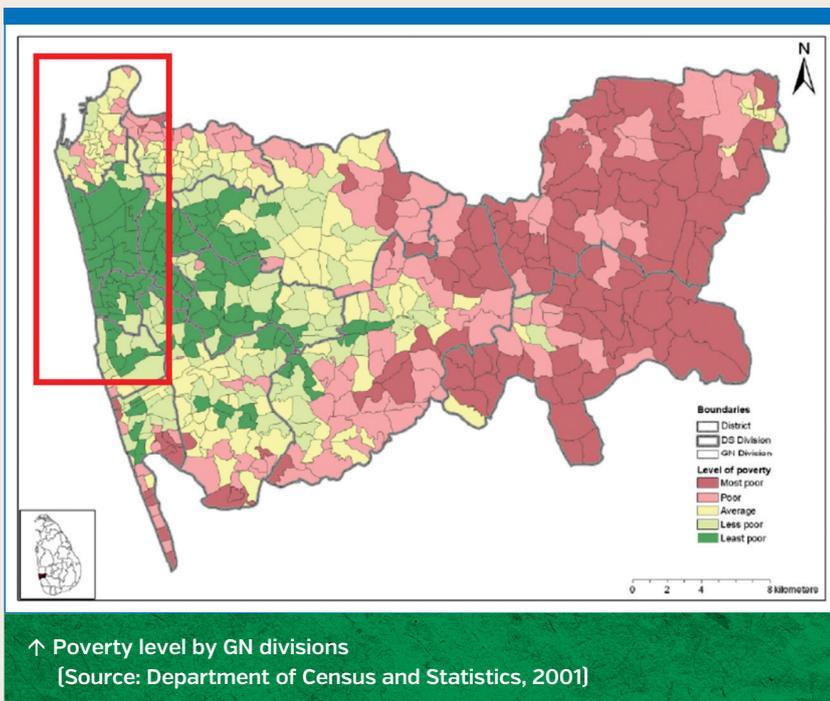


:: Introduction

The Colombo city region food system (CRFS) has been defined based on a set of criteria:

- 1. Built up areas and population density** – The rationale is that less dense areas of the region would act as suppliers to the Colombo city.
- 2. Jurisdictional and Administrative boundaries** – These are the governing units that take policy decisions.
- 3. Supply areas of macro and micro nutrients** - The most important commodities, which supplies macro and micro [vitamins and minerals] nutrients to Colombo city region. In this case, rice for carbohydrate, fish for protein, coconut for fat, and fruit and vegetables for vitamins and minerals.

From a geographical viewpoint, the Colombo city region has been defined as the **Colombo district area including the Municipal Council (CMC)**. Colombo city houses the commercial, transport and financial hubs of the country and is the center of the Sri Lankan urban economy. The highest population density of the country is in the Colombo city region with 13 364 persons/Km² [country's average population density is 325 persons/Km²].



in the living standards, economic wealth and socio-cultural standards of those who live within the CMC area. Further, there is significant ethnic diversity within the city, which contributes to the complexity of the population profile and its varying demands.

There is a substantial proportion of **marginalized people** residing especially in densely populated administrative divisions, while more than 50% of the residential units in the Colombo city limits are unauthorized settlements that comprise of vulnerable groups. Household Income and Expenditure Survey - HIES data reveals that there are 15,144 **[3%] people under poverty** headcount living within Colombo city limits. 64% of the residents are within the age group of 15-59 years.

The total population of Colombo district accounts approximately **13%** of the total population of the country. Furthermore, the city region has a transient population twice as large as the resident population. The land area of Colombo city is 37 Km², which is 5.4 percent of the total landmass of Colombo District. Significant disparities exist

The main ethnic groups are Sinhala, Tamil and Moor. To fulfill the diverse food demands of different ethnic, religious, social and age groups, a wide range of food types need to be imported or transported into the city region.

:: Describing the city region food system (CRFS)

Food production: Who feeds the city region?

It appears that a large percentage of small-scale farmers in Colombo city region produce small quantities of food products, mainly used for their own consumption rather than for commercial production. Food production in Colombo district, compared to the demand in the region, is negligible and Colombo relies on food supply from out regions resulting in supply chains involving multiple stakeholders and high food miles.

Food supply into the Colombo city occurs through diverse channels with food flows originating **from different rural regions** of the country, involving many actors engaged along the supply chains. Compared to traditional intermediates (such as wholesalers and retailers), currently there are many actors with diverse responsibilities in modern food supply chains such as commission agents. Misconduct of some of the supply chain members is suspected, which may inflate the market/retail price and reduce farm gate prices, etc. through unethical practices. Emergence of new supply chains that would offset the drawbacks of existing supply chains can be observed.

The **Manning market** is a large wholesale centre for vegetables and fruits located in one of the busiest



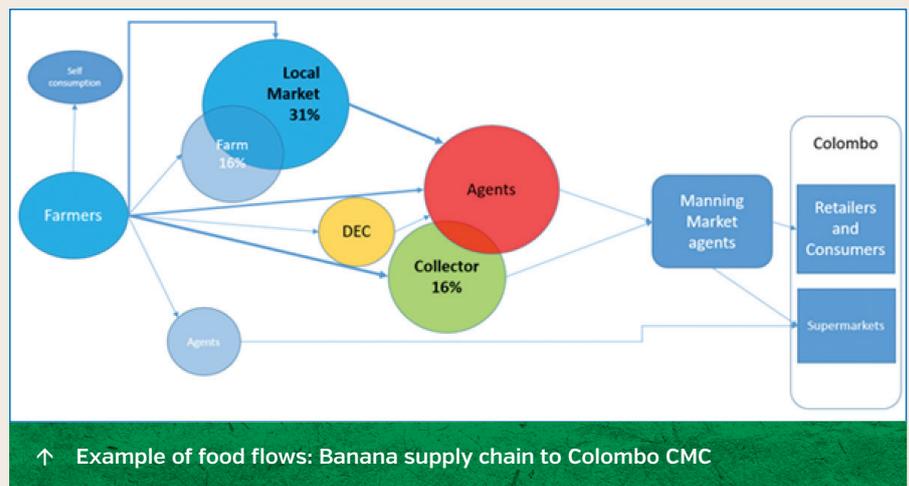
↑ Paddy fields in Colombo city (© G. Santini)

and most densely populated commercial and public service hubs in the Colombo city. Apart from this market, there are 18 other relatively large retail fruit and vegetable markets located within the Colombo city limits.

Additionally, there are many wholesale shops and storage facilities for imported food items in the CMC area which act as the national distribution centre. In addition, the widely dispersed super market chains

cater to middle and high-income communities. Nevertheless, as shown in the maps below, the Manning market is the main distribution hub supplying the entire country.

The trend of decreased rainfall and increasing temperatures is observed in Sri Lanka, and climatic zones of the country are rapidly changing. Evidence shows that **food prices** of cities are raised in adverse incidents, and at a higher frequency due to climate change. Since Colombo city region depends on food production in other parts of the country, vulnerabilities of those areas directly affect food supply to Colombo and food prices. Investments into **short food chains** (e.g. urban and peri urban agriculture), storage, and diversified supply chains, are likely to increase the resilience of Colombo's food system to disasters and future possible impacts from climate change.



of Non-Communicable Diseases (NCDs) such as high blood pressure (11.9%) and diabetes (11.2%) are reported in Colombo District. There are 895 registered eateries in Colombo and it is believed that approximately 400 eating-houses are unregistered. Therefore **food safety** concerns of prepared food in the Colombo city are considered to be a major issues and are yet to be addressed.

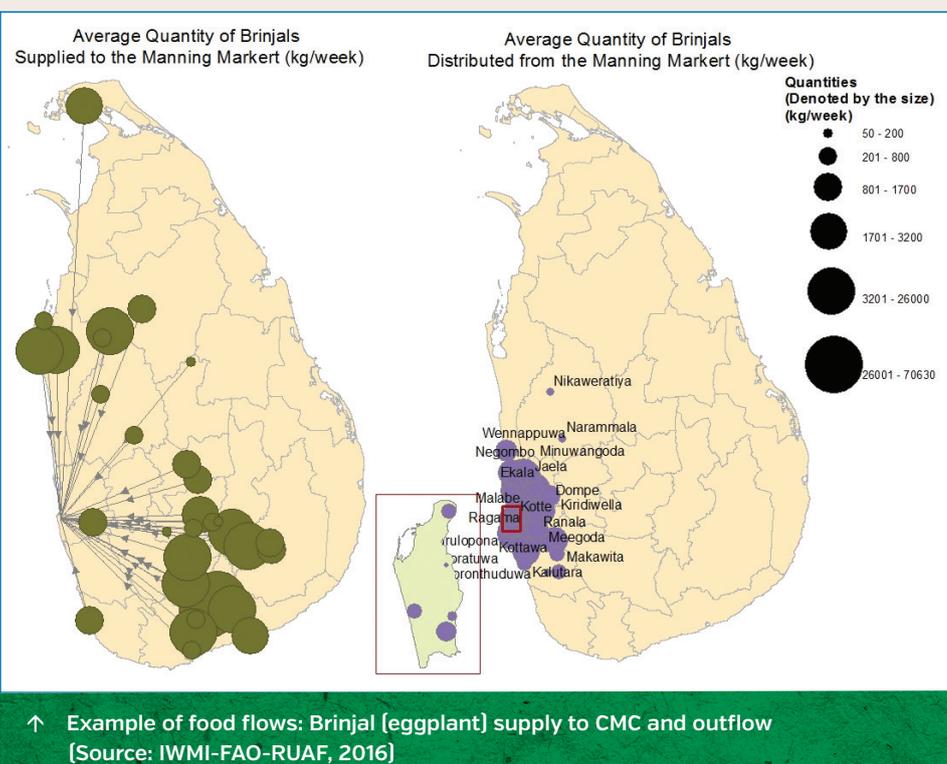
Food Consumption and Nutrition

There is a **low dietary energy** intake despite low poverty levels in the Colombo district. One third of the population in Colombo district has **not achieved 1810 KCL level (FAO standard) per day**. According to the Annual Health Bulletin of Ministry of Health, more than **30%** of residents of Colombo district are overweight (BMI > 25), of which 10.5% are obese.

A high prevalence of **anemia** is reported in Colombo District (**40%**), and authorities state anemic levels within the Colombo city exceeds that of district levels. Additionally, a high percentage

Food loss and waste

Food waste is currently a high priority issue, and is a considerable proportion (approximately **50%**) of the total waste generated in the Colombo city area, that amounts for **700 MT/day**. Despite the high potential of reuse or recycle, the majority (62%) of business entities throw away the food waste. **Food loss** of selected food items during transportation ranges between **2.5-10%** and total food losses vary between 2-50% depending on the commodity type.



INEFFICIENCIES OF THE VALUE CHAIN

The difference between the retail price in Colombo and the wholesale price at a major Central region economic center [one of the biggest wholesale markets in a production area] was identified to be as high as 1.3 to 7.5 times. The average price increase from the wholesaler at an economic center to the consumer can be estimated at 300%. The main value chains have inherited a 20-40% loss, while the alternative short supply chains (supermarket value chains) have inherited up to 10%.



↑ Manning market (© G. Santini)

Governance of the food system

The Colombo city region food system consists of multi-stakeholders at various levels. There is a considerable number of relevant government departments and authorities at national and regional levels oversee the system specially focusing on food supply, prices and consumer protection. However, numerous entities have influence over one or few food types. Some of the institutions work on multiple food categories and some entities are involved in more than one value chain activity. Since there are many formal entities involved in the regulation framework of the food system in Sri Lanka, it is highly complex in nature. Specific implementing authorities at the local level are part of a system that ensures food safety, food hygiene and waste disposal.

:: Opportunities for strengthening the CRFS

- **Increase local food production:** Colombo CRFS strongly depend on food supply from the entire country. During climate-related emergencies food supply may be disrupted and prices can be much higher. As a result demand for different food items in Colombo city region can be fulfilled to a greater extent with locally produced crops. Increased production within the city using cultivable abandoned lands in the Western province (region hosting Colombo district) will help to augment supply and reduce food mileage. If the labour scarcity issue is correctly addressed and water supply systems are rehabilitated and restored, a higher percentage of food requirements can be fulfilled within the city region by cultivating on abandoned lands. Less transport time and reduced food mileage will see a decline in post-harvest losses and carbon footprint.
- **Strengthen food distribution system:** At present dedicated economic centres have been established nationally in crop production areas (e.g. Nuwaraeliya, Nawalapitiya) and in market hub locations (e.g. Meegoda, Narahenpita). Developing linkages between farmers, collectors, wholesalers and distributors is facilitated through these economic centres and establishing more economic centres at strategic locations would benefit the city region food system.
- **Reduce food loss and waste:** Infrastructure facilities such as road networks, power supply, telecommunication and internet facilities have developed significantly in the last decade. Less post-harvest losses and access to market information through the use of telecommunication are considered factors that would benefit farmers and the consumers considerably. These infrastructure facilities can be used optimally for the benefit of farmer and the consumer and to strengthen Colombo CRFS while establishing direct and short links.

:: Policy and planning interventions for CRFS

- Amendments to the **National Food Act** strengthening food safety & hygiene aspects, institutional food quality while empowering local level authorities
- Amendment to the **regional policies** through the introduction of the CRFS concept and better natural resource management
- Introduce new **Council by-laws** covering; resource recovery from food waste, segregation of municipal solid waste and food safety
- The establishment of the Ministry of **Megapolis** and Western Development will allow to address several of the here presented challenges and opportunities.

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