**Draft**

# Food Statistics of Sri Lanka: Issues in a Market Economy

Rev.Prof. W.Wimalaratana, University of Colombo
wwimalar@yahoo.co.uk

## 1. Introduction:

The scope of food and agricultural statistics extends from food cultivation trough food processing, transporting, storing, distribution, exporting/ importing, food losses/waste, dietary health, food poverty, food security and consumption. Compilation and dissemination of real-time agriculture and food statistics are extremely useful both at micro and macro level decision making process, especially in a commercialized economy. Agriculture and food statistics of Sri Lanka are collected and disseminated by a number of agencies such as Department of Census and Statistics, Ministry of Agriculture, Central Bank of Sri Lanka, Hector Kobbekaduwa Agrarian Training and Research Institute, and Sri Lanka customs. There is no central agency to consolidate the all activities of every agency even though the leading role is played by the Department of Census and Statistics. Subsistence agriculture, centuries old practice in the country, has been replaced by the commercial agriculture in the past, this process especially expedited after economic liberalization in late 1970s. Now agriculture production decisions, especially the marketable and profitable crops, are generally driven by market forces even though some rules and regulations are checked by this behavioral pattern of the producers. The selection of crops and extent of lands to be allocated for each crop is decided by individual producers mostly based on the prices of such products in the previous seasons and prevalent weather conditions/availability of water in irrigation tanks. Multitude of small farm producers, long standing tradition of the country, are neither guided by a central authority nor provided accurate information beforehand for their production decision are taken. Therefore, the small producer is practically gambling with insufficient information in his decision making process. The rice production is exceptional in this endeavor due to its historical sentimental attraction to the producer as well as encouragements/protection given to that crop by the government to maintain the food security at a tenable level.

## 2. Food production

Food production is basically involved with food cultivation either at micro level (farmland level) or macro level (national/global level). The modern food cultivation practices apply methods which maximize the amount of productivity of per unit input while conserving resources for the future uses. The agricultural sector of Sri Lanka is basically rotated around food production other than such technical crops as rubber cultivation. In addition to farming such activities as livestock keeping, fishing and hunting are typically involved with food production. Agriculture sector of Sri Lanka is passing through a boom period now as previously uncultivated lands in civil war affected areas are brought under plough. Farmers are also receiving benefits from the reinforcement of the national agricultural extension system through technical assistance and training focusing on environmentally friendly farming techniques, pest control, conservation,

post harvest loss reduction, food processing, marketing and appropriate nutritional practices (FAO).

Table 01

National level food production and availability 2010

| Item | | | 000 Metric tons | | | |
|---|---|---|---|---|---|---|
| | | | Production | Gross imports | Available supply* | Food net** |
| Cereals | | | 4,469.73 | 736.82 | 5,191.81 | 3,996.73 |
| Roots, tubers and other starchy food | | | 381.15 | 130.89 | 512.04 | 387.40 |
| Sugar | | | 33.38 | 539.20 | 571.53 | 545.57 |
| Pulses and nuts | | | 45.18 | 152.31 | 196.88 | 188.61 |
| Vegetable (including inions) | | | 997.14 | 170.52 | 1,148.96 | 1,052.06 |
| T.V.P. | | | 3.71 | 0.02 | 3.72 | 3.72 |
| Fruits | | | 558.43 | 51.79 | 594.02 | 585.85 |
| Meat | | | 134.63 | 1.55 | 133.87 | 133.87 |
| Eggs | | | 64.63 | 0.11 | 64.74 | 63.58 |
| Fish | i | Fresh | 384.67 | 13.63 | 384.93 | 137.81 |
| | ii | Dried and salted | 46.57 | 48.69 | 95.26 | 95.26 |
| | iii | Tinned fish | 0.00 | 19.18 | 19.18 | 19.18 |
| Milk | I | Fresh | 209.08 | 0.00 | 209.08 | 124.83 |
| | Ii | Whole dried | 9.32 | 72.42 | 82.66 | 82.45 |
| | Iii | Condensed | 5.01 | 0.03 | 5.09 | 5.09 |
| | iv | Milk food (yoghurt etc) | 7.96 | 0.08 | 8.04 | 8.04 |
| Oil and fats (including coconut) | | | 1,025.28 | 8.51 | 989.86 | 728.35 |
| Total | | | 8,375.87 | 1,945.75 | 10,211.67 | 7,558.40 |

Source: Department of Census and Statistics

Estimated midyear population: 20,653,000

*(Production + Imports)-(Change in stocks + Exports)

** Quantities set apart for seed, animal feed, waste, manufacturing are excluded

### 3. Food consumption

The major component of food consumption is involved with the partaking of food items by the human beings. In addition to that a growing percentage of food production goes to feed animals and industrial purpose now.

Table 02

Average per capita food consumption 2010

| Item | Per capita availability | | | |
|---|---|---|---|---|
| | Food gms per day | Calories Per day | Protein gms Per day | Fat gms Per day |
| Cereals | 450.59 | 1561.83 | 33.12 | 2.69 |
| Roots, tubers and other starchy food | 51.38 | 66.60 | 0.56 | 0.08 |
| Sugar | 72.37 | 289.37 | 0.00 | 0.00 |
| Pulses and nuts | 25.02 | 90.30 | 6.24 | 1.39 |
| Vegetable (including inions) | 139.56 | 77.14 | 3.62 | 0.50 |
| T.V.P. | 0.49 | 1.48 | 0.25 | 0.01 |
| Fruits | 77.72 | 78.47 | 0.99 | 0.24 |
| Meat | 17.77 | 23.26 | 4.30 | 0.68 |
| Eggs | 8.43 | 14.59 | 1.12 | 1.12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Fish | i | Fresh | 18.28 | 24.33 | 3.57 | 1.00 |
| | ii | Dried and salted | 12.64 | 30.97 | 6.41 | 0.51 |
| | iii | Tinned fish | 2.54 | 4.38 | 0.53 | 0.02 |
| Milk | I | Fresh | 16.56 | 14.22 | 0.60 | 0.97 |
| | Ii | Whole dried | 10.44 | 54.27 | 2.82 | 2.92 |
| | Iii | Condensed | 0.68 | 2.20 | 0.05 | 0.06 |
| | iv | Milk food (yoghurt etc) | 1.07 | 0.64 | 0.04 | 0.00 |
| Oil and fats (including coconut) | | | 96.62 | 353.95 | 2.83 | 33.81 |
| **Total** | | | **1,002.16** | **2,688.36** | **67.05** | **46.00** |

Source: Department of Census and Statistics

Table 03

Per capita consumption of selected fruits and beverages

| Food and beverage | Unit | 2009/10 | 2006/07 | 2005 | 2002 |
|---|---|---|---|---|---|
| Banana | number | 11.86 | 10.58 | 19.24 | 8.89 |
| Pineapple | number | 0.06 | 0.08 | 0.07 | 0.06 |
| Papaw | number | 0.60 | 0.54 | 0.87 | 0.42 |
| Mangoes | number | 0.55 | 0.91 | 0.66 | 0.68 |
| Apple | number | 0.30 | 0.24 | 0.37 | 0.32 |
| Avocado | number | 0.16 | 0.24 | 0.19 | 0.10 |
| Wood apple | number | 0.15 | 0.15 | 0.96 | 0.06 |
| Oranges | number | 0.16 | 0.11 | 0.09 | 0.28 |
| Young coconut | number | 0.08 | 0.12 | 0.23 | 0.37 |
| Grapes | Grams | 3.88 | 3.75 | 8.05 | 5.58 |

Source; HARTI

## 4. Food prices

On the whole, the food prices are determined by market forces even though such prices do not essentially reflect the natural advantages of a commodity due to distorted market forces and government interventions at different stages of the production and distribution process. Prices of food items vary from farm gate price through wholesale and retail prices. Food expenditure at the consumption level is decided by food prices and quantities consumed/used. Food ratio is an important element in evaluation the household share of food expenditure of the total expenditure of all items.

Table 04

Colombo consumers' price index (Base year:2006/07)

| Item | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Food and non-alcohol beverages | 144.0 | 148.5 | 158.5 | 172.7 |
| Clothing and footwear | 112.5 | 122.0 | 130.2 | 147.6 |
| Housing, water, electricity, gas and other fuels | 114.5 | 115.1 | 119.2 | 124.4 |
| Furnishing household equipment and routine maintenance of the house | 113.0 | 122.5 | 128.0 | 133.8 |
| Health | 150.4 | 184.7 | 233.9 | 240.3 |
| Transport | 141.7 | 138.4 | 139.7 | 149.6 |
| All items | 129.2 | 133.6 | 141.9 | 151.5 |
| Inflation {change of CCPI annual average (%)} | 22.6 | 3.5 | 6.2 | 6.7 |

Source: Department of Census and Statistics

Table 05

Monthly average retail prices of selected fruits and vegetables

| Food item | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Papaw | 38.03 | 42.05 | 45.68 | 46.27 | 45.79 | 46.18 | 46.25 | 49.57 | 49.05 | 72.70 | 60.06 | 77.93 |
| Banana (koli) | 54.34 | 63.23 | 77.00 | 73.03 | 75.30 | 76.13 | 87.90 | 99.81 | 101.47 | 132.23 | 156.41 | 168.51 |
| Raddiesh | 25.90 | 27.87 | 29.46 | 30.10 | 31.93 | 37.71 | 45.46 | 49.40 | 56.52 | 59.03 | 66.98 | 75.49 |
| Green Chillies | 67.34 | 72.81 | 66.38 | 72.38 | 78.87 | 97.86 | 106.94 | 111.16 | 216.40 | 180.44 | 205.29 | 253.27 |
| Tomato | 47.36 | 61.76 | 58.45 | 55.49 | 52.67 | 68.82 | 78.47 | 72.23 | 100.30 | 88.25 | 106.18 | 122.61 |
| Beans | 47.32 | 52.57 | 54.07 | 58.46 | 57.88 | 73.54 | 83.00 | 89.88 | 109.05 | 100.96 | 122.47 | 151.52 |

Source: HARTI

Table 06

Difference between monthly average retail and wholesale prices

| Food item | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Papaw | 12.53 | 14.43 | 16.31 | 17.53 | 16.77 | 20.48 | 21.42 | 19.31 | 23.31 | 28.00 | 26.87 | 31.12 |
| Banana (koli) | 18.27 | 17.91 | 24.65 | 18.48 | 17.80 | 24.17 | 26.21 | 29.10 | 44.88 | 52.03 | 66.76 | 76.01 |
| Raddiesh | 17.26 | 19.46 | 20.52 | 21.86 | 21.86 | 27.72 | 30.60 | 35.21 | 37.83 | 38.28 | 45.18 | 53.69 |
| Green Chillies | 34.07 | 34.56 | 35.44 | 34.65 | 40.89 | 47.55 | 55.22 | 62.80 | 93.79 | 86.39 | 111.89 | 115.26 |
| Tomato | 22.38 | 27.97 | 26.50 | 23.10 | 24.00 | 30.72 | 36.66 | 36.23 | 44.64 | 40.59 | 47.03 | 50.50 |
| Beans | 16.66 | 19.98 | 18.98 | 17.98 | 19.20 | 23.62 | 28.52 | 32.02 | 38.40 | 35.74 | 41.61 | 47.87 |
| *Average* | 20.20 | 22.38 | 23.73 | 22.27 | 23.42 | 29.04 | 33.10 | 35.78 | 47.14 | 46.84 | 56.56 | 62.41 |

Adapted source: HARTI

## 5. Food imports

Food items are exported by the surplus food producing nations in the world while the deficit countries are engaged in imports to meet the local requirements. Every country in the world is involved in food imports as no country in the world is fully self-sufficient in all food items even though some countries are self-sufficient in staple food items.

Table 07

Annual imports of selected food items

| Year | Potato | | | Big Onion | | | Red Onion | | | Dried Chillies | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Qty. (Mt) | Value (Rs/Million) | CIF (Rs/Kg) | Qty. (Mt) | Value (Rs/Million) | CIF (Rs/Kg) | Qty. (Mt) | Value (Rs/Million) | CIF (Rs/Kg) | Qty. (Mt) | Value (Rs/Million) | CIF (Rs/Kg) |
| 2006 | 46,556 | 1,081 | 23.22 | 119,478 | 1,940 | 16.24 | 10,859 | 377 | 34.73 | 29,410 | 2,739 | 93.12 |
| 2007 | 85,929 | 2,210 | 25.72 | 140,773 | 4,392 | 31.20 | 23,754 | 949 | 39.96 | 31,242 | 4,080 | 130.61 |
| 2008 | 99,353 | 2,553 | 25.70 | 146,623 | 3,473 | 23.69 | 26,890 | 1,583 | 58.88 | 34,943 | 4,500 | 128.78 |
| 2009 | 99,622 | 2,648 | 26.58 | 143,275 | 4,688 | 32.72 | 16,208 | 1,083 | 66.80 | 36,218 | 4,909 | 135.54 |
| 2010 | 129,879 | 4,168 | 32.09 | 158,086 | 6,649 | 42.06 | 11,908 | 641 | 53.85 | 37,762 | 5,005 | 132.54 |
| 2011 | 130,511 | 3,943 | 30.21 | 170,731 | 6,556 | 38.40 | 6,807 | 464 | 68.17 | 42,782 | 9,118 | 213.13 |

Source: Sri Lanka customs

## 6. Food security

Food security at both micro and macro levels is an essential condition for improving economic and social wellbeing of the people in a country. The causes and sources of macro-level food security and potential policy alternatives for improving macro-level food security are mostly debated issues in the literature of food and resource economics. Rome World Food Summit of 1996 highlighted that that food security would exist if all people have access to sufficient, safe, nutritious food to maintain a healthy and active life at all times (FAO. 1996).

Sri Lanka is self sufficient in rice, the staple diet, although not self-sufficient in all food items. However, this does not indicate that Sri Lanka is not a food secure country because food security is not synonymous with food self-sufficiency (FAO 2003, UNDP 2002). Some scholars showed that national level or macro-level food security in Sri Lanka is an outcome of several factors such as global food production, trade policies, terms of trade, agricultural policies, income distribution, and social security (Kelegama 2000; Widanage, 2006). Food security is mainly known as the capacity of obtaining required food rather than the ability to produce all the food that a county needs.

Population of Sri Lanka has increased in the past to little over twenty million and the economy has transformed from a low income to a lower middle income one during the same time. The poverty head count level has also decreased considerably while unemployment has come to a historically low level. All these have made a considerable pressure on food demand of the country. On the food supply side, country has reached to self-sufficiency in rice.

Considering the increase in current global food prices, widening trade deficit, deteriorating foreign reserves and rising demand for food in Sri Lankan economy have explored a new window for policy makers to reexamine the issues and challenges of improving macro-level food security.

## 7. Food losses

Food loss or waste as mentioned interchangeably in the literature is involved with the amount of food that is discarded or unused for economic purpose. The loss occurs at a number of stages such as cultivation, harvesting, transporting, storage, processing, distribution and the preparation for final consumption. Food losses occur in Sri Lanka both in quantity and quality even though sufficient information is not available (NSF 1980). In addition to that the country losses a considerable percentage of its food production due to vagaries in weather conditions in every year or so.

## 8. Food poverty

Food poverty exists if an individual or household is not in a position to obtain healthy and nutritious food or not access to desired food items. Many people would eat what they can afford rather than what they want under such circumstances. People eat poor diets leading to such diseases as heart problems, obesity, diabetes and cancer. There is a link between economic

poverty and food poverty as poor people adjust their expenses by reducing flexible food cost while paying unfixable rent, tax, tariffs, and debts (Food Ethic Council: 2013).

Table 08
Poverty headcount ratio (% population) of Sri Lanka

| Year | 1995 | 2002 | 2006/07 | 2009/10 |
|---|---|---|---|---|
| Poverty Ratio | 28.8 | 22.7 | 15.2 | 8.9 |

Source: Central Bank, Sri Lanka Roadmap 2013

The "food poverty line" estimates the expenditure level necessary to purchase a minimum essential number of calories on the basis of a typical diet in a country (and region). This is usually considered a line for extreme poverty since non-food essentials are not included.

It is customary to measure the food poverty line in terms of amount of money spent monthly on food expenditure required per person to achieve basic nutritional requirement for good health. Nutritional requirements differ from individual to individual depending on the age, sex, and activity status of the individual. These also vary from country to country depending on factors such as race, climate etc. The Sri Lankan norms for different groups of population are calculated by the Medical Research Institute (MRI) of Sri Lanka.

## 9. Conclusion

Food statistics of Sri Lanka cover many areas of the scope of subject. The availability of real time statistics is important for productive and efficient decision making process in a market economy. It is one of the weak areas, so that producers and other involved parties maintain a speculative behavioral pattern. A number of agencies collect and disseminate statistics complementary to each other.

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