FORECASTING OF SECTORAL MONTHLY HOUSEHOLD FOOD CONSUMPTION EXPENDITURE IN SRI LANKA

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This study is designed to forecast the trends of the monthly food consumption expenditure in urban, rural and estate sectors of Sri Lanka in order to compare household demands of food groups. Monthly household consumption expenditure of ten food groups' data were collected from Household Income and Expenditure Surveys in 2016, 2012/13, 2009/10, 2006/07, 2002, 1995/96 and 1990/91. The multi-sectoral districts of Badulla, Kandy, Nuwara-Eliya and Ratnapura comprising at least a minimum of 5% population in each sector were chosen as the study area. The sample size of the total survey was 28,319 households. Monthly food expenditure of households was forecasted from 2017 to 2025. First of all, all the series were interpolated by the Best Linear Unbiased approximation method in order to overcome the irregular frequency in data. Then the Auto Regressive (AR) model was employed to forecast household food expenditure pattern. This system can be mathematically described by a stochastic difference equation and/or first order time dependent Ordinary Differential Equation (ODE). Our forecasted results reveal that monthly household food expenditures are expected to increase at an average of 6% from 2017 to 2025 in all three sectors. The forecasted monthly food expenditure in 2025 is LKR 34,906, 30,405 and 33,368 in urban, rural and estate sectors respectively. Further, monthly consumption expenditures on meat, fish and egg in all three sectors and expenditures on pulses in the estate sector are expected to increase significantly. However, the highest monthly food expenditure prevails in the urban sector and the lowest food expenditure in the rural sector in Sri Lanka. The estate sector food expenditure falls between the other two sectors. In conclusion, it is recommended that policy makers / implementers need to enhance food production, processing and marketing facilities of the essential food commodities to meet the growing demand for food.

***Keywords*:** Auto Regressive (AR), Food expenditure, Sectors, Forecasting