

Autoregressive Modelling Approach to Forecasting Paddy Yield

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This study was carried out to evaluate the alternative univariate time series modelling approaches for main agricultural output in Sri Lanka. For the purpose of the study total production of paddy were used. Those values were obtained from the Annual Bulletin, published by Central Bank of Sri Lanka. Box-Jenkins ARIMA methodology is used to assess Autoregressive model presented in this research.

In order to compare how well implementations of the two techniques work, these methods were applied to forecast three values (last three) of each fitted model. Forecast errors were used to assess mean error (ME) and mean of the absolute percentage error (MAPE) from each data series. Those MAPE values are 11% and 6% corresponding to the ARIMA modelling and Auto Regression Approach respectively. It can be considered that autoregression method can play an important role of time series modelling; especially it is a useful method to assess an appropriate model if the original series do not show seasonality or no strong evidence for stationary.

Key Words: ARIMA; Autoregression; BIC (K); PAC (K); Modelling

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