

## **Paddy Production Model in Sri Lanka through Regression Analysis**

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Rice is the staple food of Sri Lanka. It is cultivated in the whole Island of Sri Lanka. But Sri Lanka imports rice from other countries. Sri Lanka has to maintain self-sufficient in paddy production since Sri Lanka has an experience in export of rice to another nation. It depends on the paddy production model. In literature, most of the authors used time series analysis for paddy production trend and autocorrelation detected from this analysis. The regression Analysis is very familiar and common for trend analysis. This paper analyzes the model of paddy production through Regression Analysis in Sri Lanka. An annually and seasonally forty years (1971 to 2010) of paddy production data of Sri Lanka are used for this Analysis. The outcome of this Analysis can use to calculate of self sufficiency of paddy production and economic growth rate. The conclusion of this study is the production of paddy was increasing over time. Namely; annually, seasonally paddy production was increasing with time but the models of paddy production were different with each other. Annual and Maha seasonal paddy productions are going on a cubic trend and Yala seasonal paddy production model is as a linear.

**Keywords:** Regression, Autocorrelation, Model, Self Sufficiency, Maha, Yala