

IMPACTS OF CLIMATE CHANGE ON PRODUCTIVITY OF COCONUT FARMING SYSTEM IN SRI LANKA

(With special reference to Kurunegala, and Puttalam districts)

S.B.S.S. Jayathilaka ¹

Coconut is a globally important perennial crop known as the ‘tree of life’ in many communities worldwide. Coconut is grown in over 90 countries within the humid tropical regions. At the case of climate changes and extreme weather events which are significantly affects the productivity of coconut in the major coconut growing areas in the country. Also, it will threaten the livelihood of coconut cultivating community. In Sri Lanka, coconut cultivation sustains the livelihood of large numbers in the tropics. 70% of the coconut production comes from the coconut triangle. The key objective is to identify the factors to increase productivity of the coconut plantation in the different climate changes situation. The study was conducted in Kurunegala, and Puttalam districts, three agricultural areas and coconut productivity data were obtained for the period of 2000 to 2021 from these three agricultural areas. Maximum daily temperature and daily rainfall are the variables used to measurement. Regression analyses are used to analyze the data. Kurunegla, and Puttalam are the intermediate and dry zones districts respectively. Previous studies obtained in the dry zone, the number of high rainfall and high temperature days had a negative influence on productivity and the mean rainfall had a positive influence on productivity. In the intermediate zone the number of high rainfall and the mean temperature had negatively impact on coconut productivity. These findings further confirm the fact that climatic variability impacts coconut productivity to varying degrees depending on the climatic zone. Agriculture policy makers should more focus on mitigating of climate change to enhance the sustainable coconut cultivation in the country with providing more information, financial supports and subsidies

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¹ Department of Economics, Faculty of Social Science and Humanities, Rajarata University of Sri Lanka. shamijay1221@gmail.com