

Impact of Climate Change and Variability on Paddy Cultivation in Sri Lanka

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Climate change and variability are two of the most widespread topics in recent studies. Most of the researchers study the impact of climate change on the agriculture sector in the world. Because the agricultural sector is directly affected by climatic variability, within agriculture, paddy cultivation could be named as one of the most vulnerable sectors to the variabilities of climatic parameters such as rainfall and precipitation. Rice is the staple food for 3 billion people in the world, and Sri Lankans are among them. Thus, it is crucial to study the impact of climate variability on paddy cultivation in order to safeguard the country's food requirements. This study has reviewed publications that have been published related to the topics of climate change and paddy cultivation before 2022. The findings of the study proved that there is a positive relationship between rainfall increase and paddy production during the Maha season, but it is not equally distributed. Moreover, the increasing temperature has a negative impact on paddy production. To overcome these adverse impacts, various adaptation strategies have been suggested by scholars. Promoting crop insurance, having drought-resistant and short-term crops, increasing irrigation efficiency, rainwater harvesting, and intercropping are common adaptation strategies to mitigate the adverse impacts of climate change.

Key words: *Climate Change, Climate Variability, Paddy Cultivation, Sri Lanka*