

**E – KURUNIYA - PADDY VARIETY CHOOSING
MECHANISM FOR SRI LANKAN FARMERS**

Lakindu Mathanga Kannangara

A dissertation submitted in partial fulfillment for the requirement for Bachelor of Science
(Honours) degree in Business Information Systems

Department of Computing

Informatics Institute of Technology, Sri Lanka

in collaboration with

University of Westminster, UK

2021

Abstract

Rice is a staple food of more than half of the world's population; more than 3.5 billion inhabitants depend on rice daily (Maclean et al., 2013). Paddy farmers around the world, especially Asian farmers who are responsible for 90.7% of the world's total rice production (Food and Agriculture Organization (FAO), 2019), often find it difficult to choose the paddy variety that gives the highest reward in the end of the cultivating season.

Even though the years of experience and knowledge passed down from generations can support them in making this decision, the lack of information on modern biotechnological advancements and improved technologies that poses as barriers for the Sri Lankan farmer to obtain higher potential yields Walisadeera, A. I., Wikramanayake, G. N., & Ginige, A. (2013).

Present day, Sri Lankan rice farmers has been faced with a choice between traditional and high-yielding rice varieties which emphasises the need of a complex multi-attribute utility model which carefully captures subjective probability distributions in all varieties (Herath, Hardaker and Anderson, 1982).

Hence a need of a more systematic approach to eliminate the production limitations by choosing the most suited rice variety that perfectly harmonizes the geographic features, climatic factors, available resources of the farmer together and predicts the harvest, cost of production and foresees the adverse effects of the natural/environmental forces on the crop throughout its lifecycle has been identified.

Keywords: Rice, Rice Variety selection, Climatic factors for Rice, Sri Lankan Rice Cultivation