

## **A Study of Paddy Farmers' Perception and Adaptation Strategies on Seasonal Rainfall Variability in Sri Lanka**

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Rainfall variability causes substantial damage to paddy crops and such damages have serious repercussions on the national food security and causing substantial socio-economic damage to large number families in Sri Lanka. Nearly 72% of paddy is grown during *Maha* (wet) season in the dry zone areas where water resources are already stressed. In order to face and manage the situation, farmers are following different adaptation strategies at local level, and the government and non- government agencies are providing several forms of support and techniques. However, the paddy production declines are commonly reported in the country especially during the last two decades due to adverse climate conditions. With this background, the objectives of the study were to identify paddy farmers' perception on seasonal rainfall variations in Sri Lanka, their existing adaptation strategies and farmers' expectations for new forms support to cope with adverse impact of rainfall on paddy production. This is an area-specific study. Hence, the survey conducted in 11 out of 25 districts of the country: Kegalle, Kalutara, Matara, Kurunegala, Matele, Hambantota, Ampara, Batticaloa, Polonnaruwa, Anuradhapura and Puttlam. A structured questionnaire was used for the survey and 50 paddy farmers from each of the selected districts were randomly selected. Likert rating scale, preference ranking method and percentile method were utilized to analyze the results of the survey. Results of the study revealed that the surveyed farmers strongly agree that seasonal rainfall patterns have changed in their particular areas. Statistically significant number of farmers agree with the idea that seasonal rainfall has become unpredictable due to the uncertainty of rainfall. Among the total sample, only 58% of the farmers are following adaptation strategies to cope with the adverse impact of rainfall. Only 60% of the total sample are receiving external support to minimize the negative impacts of rainfall on paddy cultivation. Farmers' priority ranking for the expected supports are that cleaning and repairing irrigated canals, tanks and other water bodies and the necessity for a proper crop calendar to match with the rainy seasons.

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