Perception of the paddy communities towards climate change in the Dry Zone of Sri Lanka

KWG Rekha Nianthi[1]

Farmers' perceptions towards climate variability and adjustment of farm management practices were examined in this paper. As the dry zone in Sri Lanka is a water deficit area, its paddy cultivation is highly vulnerable to climate change. To understand the reality of climate variability and its impact on the paddy cultivation in the dry zone: 03 villages with 99 households from Kekirawa Division in the Anuradhapura district was selected for this study. Households and farm level information has been collected through a structured questionnaire and discussions with the paddy communities. The main objectives of this study are; to examine the climate change and fluctuation of rainfall and temperature in the past few decades and to study the responses of paddy farming communities to perceived threats of climate variability and its consequences. The study revealed that during the last few decades, rainfall has significantly decreased in the study area. Farmers who have noted a variety of changes in climate affecting their paddy farms: including increasingly erratic weather patterns, general warming of the climate with reduced rainfall and a shift in the seasonal pattern of rainfall. Weather disturbances such as cyclones, storms, un-seasonal rains have also been increasing.The increasing temperature conditions in the last two decades combined with decreasing rainfall during the Northeast monsoon season. According to farmers' views, due to uncertainty of timely rainfall, there is an increasing trend in *'Chena Cultivation'* than paddy cultivation especially in the 'Yala' cultivation period. There is the need to create community awareness and farmers' education on climate change and its possible hazards and in the manner farming communities could possibly cope with the changing conditions and prepare themselves. The dependence of rice has to be reduced and other crops less susceptible to droughts could be promoted. Agricultural practices which use less water, cultivation of alternative crops and various cropping patterns should be encouraged. There is also the need to promote rain-fed farming and the efficient utilization conservation of water through development integrated farming system in relation to climate change.

Key words: Disturbances, Community, Perception, Variability, Vulnerability

[1] Department of Geography, University of Peradeniya, Sri Lanka