Farmers' perception on climate change and water availability: A case study in selected areas of Anuradhapura District

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Climate is a fundamental driver of the water cycle. It determines how much water is available (supply) and how much water we need (demand) in the short term and long term. Agriculture and climate change are inextricably linked. Smallholder farmers are particularly vulnerable to changes in the climate that reduce productivity and negatively affect their weather-dependent livelihood systems. Therefore, this study aims to examine the farmer awareness on the impacts of climate change on water availability, adaptation options and determinants and barriers to adaptation to climate change. The study was based on a primary survey conducted in 2013 with a sample of 30 farmers in the most vulnerable three Divisional Secretariats (DS) in Anuradhapura District. The results indicate that 98 % of farmers are affected by climate change and drought is the prominent climatic hazard in the area. The awareness of climate change among the farmers is low and the adaptation is poor. Lack of knowledge on adaptation methods, unavailability of prior information on climate change, absence of suitable cultivars and lack of funding are the factors hindering adaptation. Therefore, focused extension programmes to empower farmers with knowledge on climate change and water availability, research on irrigation systems, management practices and education on crop cultivation planning guided by weather forecasting are necessary.

Key words: Awareness, climate change, vulnerable areas