

## Drought Vulnerability of Rain-fed Farmers in Sri Lanka

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“Climate Change” has recognized as the critical challenge in development over the world at the present day context and for years to come. Lack in resources has caused developing nations more vulnerable to the impact of climate change. Along with increased frequency of extreme climatic events such as droughts, impact on agricultural communities reached an alarming situation. Among that, farmers operating under rain-fed agricultural systems are more threaten than others, due to unavailability of supplementary irrigation. In this context, study aimed understand the level of vulnerability of rain-fed farmers to the drought conditions and ways and means of enhancing their resilient capacity towards drought. Total of 360 rain-fed farmers from six drought prone districts (Kurunegala, Puttalam, Moneragala, Badulla, Killinochchi and Mullaitivu) were selected for questionnaire survey. Vulnerability of households to drought was assessed using the Livelihood Vulnerability Index as per the IPCC approach where vulnerability was considered as a function of exposure, sensitivity, and adaptive capacity. Main income of the majority (98 %) of respondents was farming while 46 % of the secondary income sources recorded from the sample were also agriculture-related activities. It was proofed that farmers solely depend on agricultural activities thereby at high risk of facing to adverse impacts of drought related problems. From the respondents, 70 % perceived that frequency of drought has increased and 58 % stated that the length of the drought has increased during the past decade. Majority (96 %) of farmers were aware of climate change and its impact on agriculture. Results showed that, Northern Provincial farmers was highest among exposure to drought , and sensitivity and adoptive capacity was also highest among North Western Provincial farmers. Overall LVI-IPCC was lowest (-0.072 ) in North Western Province (i.e. least vulnerable area) and Northern Province has the highest LVI-IPCC value (0.003) (i.e. most vulnerable area). Providing support for construct agro-wells and rain water harvesting ponds, restoration of abandoned village tanks is mandate. Farmer’s knowledge on drought mitigation actions and drought adaptation strategies need to improve. Promoting farmers for diversifying income earning activities is crucial.

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