Farmer Perception on Changing Extensive Cattle Production System to Climate- Smart Dairy System in a Selected Cascade-Based Farming Area

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The dairy sector is prominent among all the livestock sub-sectors primarily due to its influence on the rural economy. This study focuses on evaluating the extensive production system of cattle in Thuppitiyawa and Siyabalagaswewa villages in Anuradhapura district, and assess the perception of farmers on changing to a semi-intensive farming system as an adaptive option to changing climate. The study also included the evaluation of the climate smartness of such a change by employing a score card system, collectively developed by the Market Oriented Dairy project, Department of Animal Production and Health and International Union for Conservation of Nature. The score card quantified farm level climate smartness related to farm management, animal welfare and comfort, land and water management and emission management. A total of 31 dairy farmer selected by purposive sampling were surveyed for the willingness to change into semi-intensive system using a structured questionnaire, and the data were descriptively analysed. According to the study, irrespective to the age and educational level, 75% of farmers were willing to shift to the semi-intensive system, and 32% of farmers are willing to invest on developing shelters according to the climate-smart specifications proposed by the study. Moreover, the study revealed that, lack of awareness on improved fodder verities and key management steps such as keeping correct herd composition, night shelter and providing ad-lib drinking water are significantly influencing the milk production in those herds. The assessment of climate smartness using the score card revealed that 68% of farms could achieve at least 30% of climate smart criteria tested. The study concluded that with appropriate and timely technical assistance, the farmers in the area have a potential and capacity to shift towards climate-smart dairy systems for low-carbon milk production.

Keywords: Climate-smart dairy, Extensive system, Semi-intensive system

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