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Socioeconomic Sustainability of Chena Cultivation in the Forested Land of Hambantota District, Sri Lanka

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Abstract

Chena cultivation is one of the major agriculture systems and extensively practiced in rural areas of low country dry zone as their main livelihood. Generally, a slash-and-burn method is used to clear the land in the forested area where the land is prepared before the North-East monsoon starts. Short-duration, comparatively drought resistant crops such as grains, legumes, oil crops, and vegetables are commonly grown in Chena. However, scientific studies on Chena cultivation to assess socioeconomic status were limited in Sri Lanka. Therefore, this study attempted to assess the socioeconomic status of Chena farmers in the close proximity of forest lands in Southern part of Sri Lanka. Chena cultivation areas at Tissamaharama (8 Grama Niladhari divisions namely Gotabhayapura, Yodakandiya, Rathnelumwalayaya, Uddakandara, Viharamahadevipura, Ranakeliya, Wijayapura and Joolpallama) and Lunugamwehera (7 Grama Niladhari divisions namely Udamaththala, Padawgama, Pahalamaththala, Rabukwewa, new town-Lunugamwehera, new town-Weerawila and Keerthipura) Divisional Secretariats in Hambantota district was studied. 40 Chena farmers were purposively selected for the study. Primary data were collected from the farmers by using pre-tested structured questionnaire, personal interviews and field observations. Descriptive statistics and correlation tests were employed to analyse the data. Results revealed that farmers practiced four types of Chena such as *Navadali Hena* (clearing an untouched forest area), *Ath Danduwa Hena* (regrowth and cut), *Mukulan Hena* (consists of medium-sized trees) and *Hen Kanaththa* (land exist for survival). 98% of farmers are fully involved in chena cultivation in the study area. 32.5%, 22.5%, 20%, 12.5%, and 7.5% of farmers had 11-20, 21-30, 0-10, 31-40, and 41-50 years of experience, respectively in Chena cultivation. The result also revealed that 80% of the farmers were not a member of farmer's societies and other organizations. A small number of farmers had received some relief from government such as fertilizer, agricultural extension services, 50% of subsidy seed, and 50% of subsidy loan. Chena farmers earned more than Rs.500,000.00 whereas the average income was Rs. 802,392.16 per annum. Further, 63% of the cost was contributed by labour followed next to land preparation (16%) and agrochemical (13%). Sweet melon, green gram, long beans, and tomato were recorded as major cultivated crops. Further, Chena areas were highly problematic by wildlife and cattle damage (87.5%), marketing issues (67.5%), legal (37.5%), drought (30%), and pest and diseases (27.5%). However, around 74% of respondents were willing to continue the Chena cultivation, because they have no other alternative livelihoods in this area. On the other hand, the majority (54%) were neutral or dissatisfied about their situation because they did not have land ownership. Introducing a registration procedure for land ownership, constructing the electrical fence to avoid wildlife damage, establishing a wildlife management unit to protect the wildlife habitat, and planning a proper irrigation method to secure the water supply throughout the year were the major suggestions to improve farming at a sustainable level of production and consumption.

Keywords: Forest land use, Chena cultivation, Dry Zone, Hambantota