Identifying the relationship between land fragmentation and agricultural productivity: A study with reference to vegetable land of the Wakandawala North Grama Niladari Division in the Weeraketiya D.S. Division, Hambanthota District

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Vegetables are a necessary food item in the diet systems of most Sri Lankan people. Vegetables provide proteins, vitamins, and other nutrients that are required by the human body. In Sri Lanka, per capita vegetable consumption is 52Kg per year. Vegetables in Sri Lanka are classified under two categories: Up-country vegetables and Low-country vegetables. Hambanthota is the main district which cultivates low-country vegetables. The objective of this study is to examine the relationship between land size and the yield of vegetable farmers in the selected geographic location. The implications of this relationship are discussed in the paper. The study uses primary and secondary data. A questionnaire survey was used for primary data collection. One hundred vegetable farmers were included in the sample of 200 vegetable-growing families in Wakandawala North GN Division in the Weeraketiya DSD. The simple random sampling method was used to select the farmers. Information such as land preparation methods, crop varieties, and size of land were collected through field observations. Secondary data were collected from the Weeraketiya DS Office and the Agricultural Service Office, Weeraketiya. Statistical and mathematical methods were used in analysing the data. The main characteristic of the vegetable lands of the Hambantota District is that cultivated plots are very small. In the research area, more than 90% of farmers have land plots of less than 0.25 acres. The following characteristics are identified in the area: most farmers do not have proper land ownership; farmers cannot use heavy machinery for farm activities and, thus, follow labour intensive methods for vegetable cultivation; and finally, the vegetable market has uncertain conditions. The implications of these characteristics are discussed in the paper.

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