

IDENTIFICATION OF FARMING SYSTEMS IN MAHAWELI SYSTEM “H” IN SRI LANKA

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Mahaweli Development Programme is one of the country's bigger investments in the agricultural sector. Although Mahaweli system H (MH) is comprised of different farming systems, adequate studies have not been conducted to recognize them. The main objective of this study was to identify the existing farming systems in MH. Three hundred farmers were selected representing entire MH using stratified random sampling technique. Data was collected using pre-tested and structured questionnaire from three blocks representing upper (Mahailuppallama), middle (Thambuththegama) and lower (Nochchiyagama) ends of MH. Chi-square test and descriptive methods were used to analyze data. Results revealed that cropping patterns in MH had frequently changed during last five years due to water scarcity. Significant variations in both cropping patterns ($p=0.0000$) and cropping systems ($p=0.0000$) among the upper, middle and lower blocks of the system was recorded. Rice mono-cropping, rice-low country vegetables, rice-root and tubers and rice-oil seed crops were identified as prominent cropping patterns in MH. Rice mono-cropping was identified as the major cropping pattern in both Thambuththegama (40%) and Nochchiyagama (18%) blocks while that was rice-root and tuber crops in Mahailuppallama (13%) block. Rice mono-cropping was identified as the most commonly practiced cropping system in both Mahailuppallama (52%) and Thambuththegama (20%) while that was rice-low country vegetables in Nochchiyagama (19%) block. Rice cultivation with cattle rearing was the prominent farming system in the selected three locations (Nochchiyagama 11%, Thambuththegama 5% and Mahailuppallama 4%). Identification of most prominent farming system, cropping pattern and system is essential and cooperative in developing appropriate and efficient productivity plans to get maximum output from a given land. Hence type of studies would be helpful for the other areas of the Mahaweli system in Sri Lanka.

Keywords: Cropping pattern, Cropping system, Farming system, Mahaweli H