THE FARMERS PARTICIPATION IN IRRIGATION MANAGEMENT AND IT IS IMPACT ON FARMERS PRODUCTION AND INCOME

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ABSTRACT

There is more than two thirds of the land area in the dry zone and it is not productive without irrigation. Improvement of land productivity through irrigation can contribute significantly to increasing agricultural productivity in Sri Lanka. This study analyzed the Kaudalla Tank Irrigation System in the Medirigiya DS area in the Polonnaruwa District, In relation farmer participation in irrigation water management, land productivity, paddy yields and farm income and problems faced in water distribution during the last Maha (2016/17) and Yala (2017) seasons. A pre-tested structured questionnaire was used to collect primary data from randomly selected 100 paddy farmers on the Right Bank of the Kaudalla Tank Main Channel distribution system. Secondary data were obtained from the Irrigation Dept., Polonnaruwa, DS office, Medirigiriya. Data analysis was done using the SPSS software confining to descriptive statistics, frequency and Likert Scale estimation.

The results revealed that only 44% of farm land was directly irrigated by irrigation channel water inflow. Farmers who live in Head-end of the Main channel used longer time duration for irrigating. The length of time taken to irrigate one acre of land was 2 hours for 83% of farmers, while 17% farmers needed 3 hours for it. Majority of paddy farmers (77%) had their own land for paddy farming, More than 60% of farmers obtained income in the range of Rs.100,000 to Rs.119,999, while the mean income was Rs.113,260 per season.

Farmers who live in Head-end of the Main channel used long time duration of irrigating paddy land during a season.

In the Yala season, the Cost of Production of paddy was higher than the Maha season because inputs cost goes up, In the cost of production of paddy, costs for hired labour, ploughing and harvesting were the larger shares in both Maha and Yala seasons. Farmers obtained a higher production in Maha season than the Yala season because in the Maha season the diverted water quantity were higher. Mean paddy yield in the Maha season was 2,146.75 kg per acre, but in the Yala it was 1,822.5 kg per ac. The number of cleaning programs organized Farmers Organization varied during the last five years. The head-end and tail-end farmers participation was higher than the mid-channel farmers in FO meetings. The Operational & Maintenance of the Tank Irrigation System cost was Rs.3,707 per acre each season

The study indicated that farmers moderately agreed on FO activities in water management to be more helpful, farmers felt that FO activities helps to save irrigation water in the tank, farmers moderately agreed in FO's role had helped proper tank management, indicated a low level of dissatisfaction on water authority personnel, indicated on average level distrust towards FO representatives, and also indicated an average level of farmers' participation in irrigation management process.

Keywords: Tank irrigation Paddy, Irrigation fees, cost of production, Farmer participation, Income.

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