

OWNER OPERATED ECONOMICALLY VIABLE HOLDING SIZE IN IRRIGATED SETTLEMENTS

C.D.B. Weliwita¹, K.S. Karunagoda² and A.P.S. Fernando¹

¹*Dept. of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka.*

²*Socio Economics and Planning Centre, Dept. of Agriculture, Peradeniya, Sri Lanka.*

The concept of optimal land size has introduced to settlement schemes expecting that income generated by the land resources would be sufficient to meet the household expenditure. The objective of this study is to estimate the economically viable holding size and land productivity in five selected major irrigation settlement schemes in *Anuradhapura* district using random samples of 150 wner operators. The current operational holding size of selected settlement schemes are in the range from 0.25 ac to 5 ac with an average operational holding size of 1.99 ac. Forty percent of land owners posses allotments with extent smaller than 1.5 ac and 93.25% have an average income higher than the poverty line. The reason for this would be the engagement of off farm employment by 70.23% of the sample households. The average economically viable holding size was 2.83 ac and average paddy-vegetable and paddy-paddy farming systems were 3.28 ac to 2.71 ac respectively. The regression analysis indicated that the holding size could be influenced by social, economical and physical processes. The share of non-farm income in the family income and decision to participate inland rental market are negatively related while the number of family members is positively related ($R^2 = 67.1\%$) to the holding size. The relationship between land productivity and farm size was negative and significant. Number of hired labour, family labour and number of irrigations given were positively related with the productivity. Floods significantly to reduced the land productivity ($R^2 = 75.4$). It is concluded that household characteristics should be taken into account in stipulating minimum land holding size and below 1.5 ac holding size is possible only if off-farm employment opportunities are available within the settlements.

Key words: Economically viable holding size, Owner operator, Productivity, Settlement schemes