

# **Economics of Selected Domestic Food Crops: A Case Study in Badulla District, 2000-2017**

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Agriculture is the principal form of livelihood for substantial fraction (57.3%) of population in Badulla District (Department of Agriculture, Sri Lanka). In spite of high incidence of poverty in Badulla district, climatic conditions are favorable for cultivating of domestic food crops such as potato, tomato, pole bean, maize and capsicum which are the most leading food crops in the area. Therefore, this study aims at comparing the profitability of leading food crops in the Badulla district and to analyse the resource use efficiency of these crops for the period of 2000-2017. The Cobb- Douglas production function was applied for each crop separately to compare the resource use efficiency. The study results show that 70% of the variance in the dependent variable can be predicted from the independent variables used in the models. Among the inputs, agro chemicals, hired labor and machinery indicate negative relationship with the gross income for these selected crops. The summation of output elasticities are greater than one (1) in pole bean (*Maha* season 1.3524 and *Yala* season 1.1295) which means its production function has increasing returns to scale. This implies that increasing expenditure on resources for pole bean cultivation can help farmers to obtain higher income than their expectation. Furthermore, capsicum and tomato in *Maha* season also have increasing returns to scale. In addition, potato, maize and tomato in *Yala* season indicate decreasing returns to scale implying inability to obtain the benefits from returns to scale. Moreover, profitability analysis shows that, pole bean in *Yala* season and tomato in *Maha* season has the highest increment in the profitability compared with other domestic food crops in Badulla district. Therefore, the study suggests diverting resources from less profitable crops to high profitable crops in order to enhance the resource use efficiency and to improve the living conditions of the farmers in the area.

*Keywords:* Badulla district, Domestic food crops, Input use efficiency, Returns to scale