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## Socio-economic Profile, Resource Use Efficiency and Constraints Study in the Tank Commands of North Eastern Karnataka, India

SAIKUMAR C. BHARAMAPPANAVARA<sup>1</sup>, S.M. MUNDINAMANI<sup>2</sup>, NITHYA VISHWANATH GOWDRU<sup>3</sup>,  
B.K. NAIK<sup>4</sup>

<sup>1</sup>*Humboldt Universität zu Berlin, Institute for Co-operative Studies, Germany*

<sup>2</sup>*University of Agricultural Sciences, Department of Agricultural Economics, India*

<sup>3</sup>*Humboldt-Universität zu Berlin, Dept. of Agricultural Economics and Social Sciences, Germany*

<sup>4</sup>*University of Agricultural Sciences, Department of Agricultural Marketing and Co-operation, India*

### Abstract

Tank irrigation is an age old established practice in most of the semi-arid tropical parts of India and particularly in South India for providing life saving irrigation to the crops. Tank commands has a special significance to marginal and small farmers who depend on the tank irrigation hence can be effectively used for development of backward areas. The study was conducted in three districts like Bidar, Bellary and Raichur districts of North eastern Karnataka in the selected tank commands rejuvenated by Jala Samvardhane Yojana Sangha, Government of Karnataka with an objective of studying the resource use efficiency in the tank commands and to identify the constraints faced by farmers in farming activities. Majority of the farmers in the study area were practicing only animal husbandry as subsidiary enterprise, field crops were the major crops. In order to maximise the profits, the optimum use of resources is imperative.

The C-D production function was used to measure the resource use efficiency and allocative efficiency in the study area. Results revealed that, there are seven important variables influencing the dependent variables. The inputs like feeds + concentrates was over utilised and number of cows and seeds were under utilised in Bidar district. The resources like land, number of cows, fertiliser + FYM were over utilised and labour, PPC + veterinary charges were under utilised in Bellary districts. In Raichur, fertiliser + FYM and labour were underutilised. Indicating the scope for reorganisation of resources to optimise their use to enhance returns. In all the districts, the use of resources which are showing negative production elasticity should be decreased to achieve the optimality in the resource use and the use of resources showing more than one elasticity should be encouraged to enhance the profitability condition. The analysis of constraints encountered by the farmers in the study area revealed that there are several problems associated in the study area are grouped under two heads namely production constraints and marketing constraints. For safeguarding the farmer's interest to enhance farm efficiency, arrangements should be made to avail timely and adequately the credit, inputs and market information.

**Keywords:** Elasticity, JSYS, resource use efficiency