De Silva, 2010

for the daily soil

o. If SMD is zero

Journal of Dry Zone Agriculture, 1(1): 59 - 71 (2010) ISSN 2012-8673

Paddy Production Efficiency of The Farmers Under Tank Irrigation Systems in Tamil Nadu

Nanthakumaran, A.[1]* and Palanisami, K.[2]
[1]Lecturer, Dept. of Biological Sciences, Faculty of Applied Science, Vavuniya Campus, Vavuniya.
[2]Director, IWMI-TATA Policy Research Program, International Water Management Institute, South Asia Regional Office, Hyderabad, India

Abstract

Excessive input usage by the farmers expecting to reap a higher yield, causes higher cost of production ultimately leads to bring down their profit as well as wastage of scarce resources. The presence of shortfalls in efficiency means that output can be increased without requiring additional conventional inputs and without the need for new technology. Hence, an attempt was made to study the efficiency of the paddy production by the farmers under tank as the only source of water and tank water with groundwater as the source of water supply. The objective was pursued first by estimating a stochastic production frontier (SPF) which provided the basis for measuring farm level technical efficiency, economic efficiency and allocative efficiency using a random sample of 173 farmers in Typology I and 246 farmers Typology II. Analysis of the technical efficiency indicated that more than 80 percent of paddy farms are technically efficient in Typology I and Typology II. The allocative efficiency had shown that 61 percent of paddy farms in Typology I and 74 percent in Typology II are allocatively efficient whereas 51 percent of the paddy farms in Typology I and 63 percent in Typology II are economically efficient in the study area. The percentages of efficiency gap in paddy farms in Typology I and Typology II reveals that the average and inefficient paddy farmers in Typology II are relatively more efficient in achieving the highest technical efficiency level in the same situation. The percentages of efficiency gap in paddy farms in Typology I and Typology II reveals that the average and inefficient paddy farms in Typology II are relatively more efficient in achieving the highest economic efficiency level in the same situation

Key words Technical efficiency, Allocative efficiency, Economic efficiency, Tank irrigation, Efficiency gap

*Corresponding author