

EVALUATION OF GENDER DIFFERENCES IN RESOURCE UTILIZATION AND TECHNICAL EFFICIENCY OF IRRIGATED VEGETABLE FARMING IN PLATEAU STATE, NIGERIA

Bilkisu Omar Dossah & Ibrahim Umar Mohammed

Training Department,
National Water Resources Institute
Kaduna, NIGERIA

ABSTRACT

The main thrust of the study was an appraisal of gender differences in resource utilization and efficiency of irrigated vegetable farming in Plateau State. Accordingly, two stage sampling technique was employed in selecting the respondents. Primary data for the study were collected using structured questionnaire administered to 156 male and 195 female randomly selected vegetable farmers during 2013 – 2014 production season. Data were analyzed using stochastic frontier production function and results of maximum likelihood estimates for the parameters of the stochastic production function showed that estimated coefficients of farm size, labour and fertilizer were significant at 1% for both male and female vegetable farmers. Seed and agrochemical were negative and significant at 1% for female farmers. The estimated input elasticities of production for farm size, labour, fertilizer and agrochemical are less than 1 for male and female farmers while agrochemical and volume of water were negative for female farmers. The returns-to-scale estimates for male farmers was 1.314 indicating increasing returns to scale while for the female farmers, was 0.97, which implies decreasing return to scale. The mean technical efficiency was 0.71 and 0.81 for the male and female farmers respectively. The study concludes that, the yield level in vegetable production among male and female farmers can be raised if the use of major variable inputs such as farm size, labour, seed and fertilizer influencing the output could be increased, vegetable production will remain a profitable enterprise. This study recommends that since positive and significant relationship exist between farm size, labour, seed and fertilizer, the Plateau State Agricultural Development Project should train the farmers on use of more resources utilization and farm management skills which will enable the farmers to maximally utilize their variable inputs focusing on efficiency as their goal.

Keywords: Gender, irrigation, resource utilization, technical efficiency, vegetable production.