EFFECT OF FERTILIZER INPUT SUBSIDY ON MAIZE PRODUCTION IN KENYA: THE CASE OF WARENG DISTRICT

BY

DAVID OCHIENG KWACH

X50/75164/2009

A research paper submitted to the University of Nairobi, School of Economics in partial fulfillment of the Degree of Master of Arts in Economics.

September 2011
ABSTRACT

Maize is a staple food in Kenya, consumed in various forms by 96 percent of the population. Its’ production is characterized by high smallholder participation which contributes about 75% of the overall production, with the remaining 25% being contributed by the large-scale farmers. The high level production of maize and its development has a positive impact on rural incomes, poverty reduction and food security. Maize growing in Kenya is concentrated in the Rift Valley districts of Trans Nzoia East and West, Waren, Eldoret East and West, Nakuru, and Kwanza a region often referred to as the ‘Granary of Kenya’. The Kenyan government has made a great effort by giving farmers subsidy for farm inputs like fertilizer, seeds and tractor for hire to increase the maize yield.

Due to the decline of maize production in the country, its’ consumption is over and above what is produced. It is therefore important for this study to investigate the effect of fertilizer input subsidies as one of the leading means of raising maize yields in Kenya. Given that land holdings are not increasing while population growth is on the upward trends on yearly basis.

The study employed cross sectional data of the small scale maize farmers in Wareng district in Kenya. The data was on the effect of fertilizer input subsidy on maize production before and after the subsidy program of the year 2009. This study also used the Cobb-Douglas production function. This function, though non-linear in form, it was transformed into a linear functional form known as “log-linear” functional form for easier interpretation of the variables.

The results from the study indicated that an extra bag of fertilizer applied due to subsidy increased number of bags of maize produced per acre by 14.3% ceteris paribus, this relationship was very significant at 5% level. An extra year of experience farming maize increased maize yield by 0.16% all other things held unvaried; an extra year of schooling decreased the productivity by 1.4% ceteris paribus; a shilling increase in prices increased yield per acre by 2.8% ceteris paribus and an extra acre meant for maize farming increased yield per acre by 8.5%,