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Econometric Analysis of Socio-Economic Factors Influencing Investment into Agrochemical in Cameroon — A Survey in Peri-urban and Urban Agriculture

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Abstract

The agricultural sector is the most important in African economies employing as much as 50 % to 80 % of the labour force. However, importation of food is still needed to curb the increasing gap between food demand and food production. As shown by several studies, one of the most critical problems in Africa today is how to increase agricultural production to meet increasing food demand arising from increase in population pressure.

The use of agrochemicals has been the main option for increasing agricultural production in Africa. Fertilizers and pesticides are widely used by farmers in the forest zone of Cameroon, particularly in urban and peri-urban areas where the population density and market access fuel the food demand. This paper quantifies using limited dependent variable regression, the impact of socio-economic factors on investment into agrochemicals, based on a survey of 414 individual inland valley farmers in the forest margins of Cameroon.

The analysis showed that men, the distance to the cultivated plot, the area cultivated, smaller households, are the main factors influencing farmers investment in fertilizers. Urban farmers having full rights to the land cultivated are not keen to use fertilizers. In pesticides, it has been demonstrated that women invest less than men, and contact with extension is a key factor for acceptance. Elasticities calculated showed the effects of policy changes on farmers' investment behavior. The level of education, access to extension services and gender of the farmer influence the probability to invest and the amount invested in agrochemicals in Cameroon.

Finally, results of the study have significant implications for agrochemicals diffusion policy, in particularly how to better target integrated soil fertility and pest management methods which are needed to substitute for the non-sustainable use of chemical inputs.

Keywords: Socio-economics factors, chemical input, Tobit model, urban and peri-urban agriculture, Cameroon