Advances in dairy Research

Extended Abstract

Partial privatization of agro input supply, implication for access/utilization and food security in Nigeria

Umeh Ogechi Jubilan

Abstract

There is an increasing recognition that ownership, access and, control over agricultural resources constitutes critical elements in the determination of the well-being of farm households. The study therefore assessed the effect of partial privatization of agro input supply and its implication on access/utilization and food security in Nigeria. Specifically, the study ascertained level of access and utilization of agro input among farmers in the study area, examined effectiveness of agro input supply services provided by public and private organizations, identified farmers preferred agro input delivery system regarding public and private agro input delivery systems and identify constraints to access and utilization of agro input in Nigeria. Multi-stage sampling procedures were used to select eighty (80) respondents for the study. Descriptive statistics and Bivariate regression analysis were used for data analysis testing the hypothesis. Results shows that all the agro inputs listed for verification have low access and utilization level. However, private agro input supply organizations further showed effectiveness in adequacy of input supply in relation to farmers demand while high cost of inputs, untimely and insufficient input supply respectively were major challenges encountered in access and utilization of agro input in Nigeria. Analysis of the influence of privatization of agro input supply on level of utilization of agro input by farmers established a significant relationship at P<0.001 level. It is therefore recommended that identified government and private agencies should initiate actions towards making a blend of public - private agricultural input supply services which will be compatible and most practical for the country in achieving its food security policy.

The current food system (production, transport, processing, packaging, storage, retail, consumption, loss and waste) feeds the great majority of world population and supports the livelihoods of over 1 billion people. Since 1961, food supply per capita has increased more than 30%, accompanied by greater use of nitrogen fertilisers (increase of about 800%) and water resources for irrigation (increase of more than 100%). However, an estimated 821 million people are currently undernourished, 151 million children under five are stunted, 613 million women and girls aged 15 to 49 suffer from iron deficiency, and 2 billion adults are overweight or obese. The food system is under pressure from non-climate stressors (e.g., population and income growth, demand for animal-sourced products), and from climate change. These climate and non-climate stresses are impacting the four pillars of food security (availability, access, utilisation, and stability).

Observed climate change is already affecting food security through increasing temperatures, changing precipitation patterns, and greater frequency of some extreme events (high confidence). Studies that separate out climate change from other factors affecting crop yields have shown that yields of some crops (e.g., maize and wheat) in many lower-latitude regions have been affected negatively by observed climate changes, while in many higher-latitude regions, yields of some crops (e.g., maize, wheat, and sugar beets) have been affected positively over recent decades. Warming compounded by drying has caused large negative effects on yields in parts of the Mediterranean. Based on indigenous and local knowledge (ILK), climate change is affecting food security in drylands, particularly those in Africa, and high mountain regions of Asia and South America.

Food security will be increasingly affected by projected future climate change (high confidence). Across Shared Socio-economic Pathways (SSPs) 1, 2, and 3, global crop and economic models projected a 1–29% cereal price increase in 2050 due to climate change (RCP 6.0), which would impact consumers globally through higher food prices; regional effects will vary (high confidence). Low-income consumers are particularly at risk, with models projecting increases of 1–183 million additional people at risk of hunger across the SSPs compared to a no climate change scenario (high confidence). While increased CO2 is projected to be beneficial for crop productivity at lower temperature increases, it is projected to lower nutritional quality (high confidence) (e.g., wheat grown at 546–586 ppm CO2 has 5.9–12.7% less protein, 3.7–6.5% less zinc, and 5.2–7.5% less iron). Distributions of pests and diseases will change, affecting production negatively in many regions (high confidence). Given increasing extreme events and interconnectedness, risks of food system disruptions are growing (high confidence).

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Umeh Ogechi Jubilant
Michael Okpara University of Agriculture, Nigeria E-mail: umehogechi2@yahoo.com