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## Supporting Sudanese Agriculture to Improve Food Security

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### Abstract

Although it is rich in natural resources, Sudan is classified as least developed, low-income and food-deficit country. In the year 2005 the production of cereals in Sudan dropped by half. Subsidizing grain sector has risen as one of the solutions to bridge transitory food insecurity in the country. This paper tries to quantify the impact of these subsidies on the supply of cereals, food security, government budget and country welfare as a whole. To realise the study objectives, a multi-market model for Sudan was developed. The model embodied important characteristics of agriculture in Sudan like substitution effects and the partial-dependency of the agricultural supply on rainfalls. Sudan has accelerated its measures of economic liberalisation in 2000 by removing subsidies, production and export taxes on agricultural commodities. By looking at the structure of the Sudanese crop production it is clear that export commodities compete food commodities on scarce resources since an increase in one price would lead to a shift of the resources away from producing food crops to export crops and vice versa. The impact of input subsidy on the national food security indicators revealed a decrease of 52% in food deficit which is more than that in the case of subsidising producer price in which the subsidy reduced the deficit by 20% only. On the other hand, the input subsidy has a positive effect on the vulnerable population that substantially decreased compared to the producer subsidies case, where the vulnerable population reduced only to 2% of the total population.

**Keywords:** Food security, multi-market, subsidy, sudan