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## Implications of Drought and Floods on Household Food and Nutrition Security in the Arid and Semi-arid Lands in Kenya

NANCY MUNYIVA LAIBUNI

*Kenya Institute for Public Policy Research and Analysis (KIPPRA), Productive Sector Department, Kenya*

### Abstract

The drought and floods cycles in Kenya have become shorter and are now 2–3 years, this has resulted in unprecedented challenges in regard to household food and nutrition security especially in the Arid and Semi-Arid areas. Data for this study were collected from both secondary (national statistics) and primary sources where interviews were carried out with 1370 randomly selected households using a structured questionnaire. The selection of the sampled households was based on NASSEP V developed by the Kenya National Bureau of Statistics (KNBS). Data was collected February and March 2018, the Survey covered 27 counties specifically; 23 Arid and Semi-arid counties plus 4 counties that were prone to floods. Analytical techniques employed included descriptive statistics of respondents' characteristics and linear regression analysis to identify factors influencing their household food security. The results show that the Arid and semi-Arid Lands of Kenya are vulnerable to food insecurity especially during incidence of drought and floods. The situation in the country is not getting better which is evident by the increasing number of undernourished citizens. There is need to diversify the food groups that Kenya consumes half of the food consumed comes from only three namely; milk and products; maize and products and wheat and products. Households in the sampled counties are net buyers of food due to their reliance on rainfed agriculture and reliance on mainly livestock production system. In regard to factors influencing household food and nutrition security, the age, gender, and education level of the household heads contributes positively to the status of the household. While the presence of assets, access to credit and remittance also contribute positively to the household food and nutrition security. The study recommends that the production systems need to be transformed by introducing technology such as irrigation to reduce dependence on rainfall and at the same time introduce insurance mechanisms against the impacts of weather-related shocks. Finally, strengthen markets to minimise supply failures and reducing chronic poverty. This requires a range of pre-emptive measures, including building transport infrastructure to integrate markets, and building asset buffers at the household level to reduce their vulnerability.

**Keywords:** Arid and Semi-Lands, drought and Floods, Household food security