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## Linkage of Irrigation and Nutrition in Sub-Saharan Africa: a Review of Kenya’s Irrigation Arrangements

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### Abstract

For the last five years, the number of undernourished people in the world has been increasing and is almost at levels last seen a decade ago. While prevalence in the percentage of undernourished people varies by region, in sub-Saharan Africa, the number is almost double the global number. In spite of the investments done in the agricultural sector in sub-Saharan Africa from the commencement of the Millennium Development Goals and the Comprehensive Africa Agriculture Development Programme about two decades ago, evidence shows a minimal impact on nutritional outcomes.

With irrigated agriculture having come back in Africa’s policy agenda in the last few years the means of how this agricultural development is implemented to achieve the intended outcomes in food and nutrition security is a critical aspect of research and development arena. As governments and the development community cite irrigated agriculture’s ability to utilise marginal areas, mitigate effects of climate change and possible solution to increasing food production in the region, it is imperative for researchers to provide clear means in which it can be linked to nutritional outcomes. This research seeks to give an understanding pathways through which irrigation can affect nutrition. This paper reviews recently published frameworks on irrigation and nutrition outcomes and innovatively looks at the socioeconomic aspects of farmers and the different institutional aspects of irrigation arrangements. In addition, the paper focuses on the aspect of neglected area of farmer initiated irrigation using secondary data from Kenya. Apart from documenting knowledge of the linkage between of irrigation and nutrition and building upon recent irrigation-nutrition frameworks, the paper also provides insights into the possible irrigation-nutrition pathways. In addition, through the use of secondary data, the paper provides insights on the aspects of irrigation linkages to nutrition in a sub-Saharan Africa country.

**Keywords:** Irrigation, Kenya, nutrition security, pathway, smallholder