

## Cost and Non-affordability of a Nutritious Diet in Ethiopia: The Fill the Nutrient Gap Approach

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**Abstract :** Introduction: Ethiopia has made considerable progress in reducing stunting, yet 39% of children under five remain affected. Child wasting, micronutrient deficiencies, and poor quality of diets for children and adults are the main challenges faced by Ethiopians. Availability and access to nutritious foods and potential scenarios to improve affordability were assessed. Methodology: The Fill the Nutrient Gap (FNG) methodology was used. Cost of the diet software was used to optimize the cost and affordability of nutritious diets for a typical household. Monthly food price data (November 2018 to October 2019) was used to calculate the cost of the diet. Modeling of interventions was performed to identify potential entry points for policy implementers. Non-affordability of the modeled diets was estimated. Average per capita diet-related greenhouse gas (GHG) footprints for current diets and modeled diet scenarios were also evaluated. Result: Almost all households would be able to afford energy-only diets. However, only 25% of households could afford a nutritious diet. Diets containing multiple nutrients would cost four times more than energy-sufficient diets. Nutritious diets tended to cost more in areas where fewer foods were found on local markets (correlation coefficient =-0.62). A modeling scenario performed on multiple interventions showed a reduced monthly cost of a nutritious diet. The GHG emissions of optimized diets that meet nutrient needs were below the country's emission target. Conclusion: Adolescent girls and women were at risk of inadequate diets as the cost of meeting their nutrient requirements was highest. Diet costs were predominantly driven by requirements for vitamin B12, iron, and calcium. Improving access to nutrition can have implications for climate outcomes as well as nutrition.

**Keywords :** diet cost, affordability, modelling, environment

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