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Co-developing nutritious foods with societal actors to improve child nutrition in northern Benin drylands

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Abstract

Malnutrition is a persistent and increasing issue in the drylands of Africa. The new global challenges of COVID-19 and climate change are significantly impacting the livelihoods and increasing the vulnerability of the region. However, nutritious foods developed by researchers from traditional food products have received little interest from the population. The objective of this study is to identify the extent to which it is possible to co-develop nutritious, healthy, affordable, and desirable foods from interest traditional foods products for societal actors. To achieve this, we organised focus group discussions (n=4) with mothers and local processors to select foods of interest, diagnose current food processing technologies, and identify local options and resources for improving the nutritional and sensory qualities of foods. We used the Solver linear programming function in Excel to formulate the foods. Two joint co-development sessions were organised with local processors to test the identified lower-cost formulations. The results demonstrate that the co-developed feeds can cover at least 50 %, 50 %, 83 %, and 35 % of the iron, zinc, protein, and vitamin C requirements, respectively, for 6–12 months old children per 100g. The cost analysis shows that for a 100g portion, all foods are affordable in relation to the daily food expenditure capacity of individuals in the study area. This study has demonstrated that it is possible to co-develop affordable and nutritious foods with societal actors to combat malnutrition. As co-development incorporates the knowledge of societal actors, this approach could be scaled up in the fight against malnutrition by improving the desirability and adoption of nutritious foods developed from local food products.

Keywords: Co-development, drylands areas, malnutrition, nutritious foods, traditional food products

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