

**Brief supporting Evidence Report 2** 

## STRENGTHENING AGRI-FOOD VALUE CHAINS FOR NUTRITION: MAPPING VALUE CHAINS FOR NUTRIENT-DENSE FOODS IN GHANA

**Reducing Hunger and Undernutrition** 

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This brief summarises the findings of a report on value chain mapping of nutrient-dense foods in Ghana. By providing evidence on value chains, the report assesses the potential of a number of food products to contribute to reducing undernutrition in Ghana. It supports the work of development agencies and public-private partnerships by analysing the challenges that inhibit these products from having greater impact, and identifies options for policymakers and others to help address these challenges. The report also supports an accompanying set of policy guidelines, which outline programmatic and policy approaches to promote the provision of nutrient-dense foods in Ghana.

Undernutrition is a critical development problem across the globe, leading to premature deaths, illness and impairment for hundreds of millions of people. In Ghana, despite falling poverty rates and reductions in severe malnutrition, undernutrition continues to impact nearly one in three children under five years old. Vitamin A and iron deficiencies are extremely widespread, and are associated with child and maternal deaths and negative health outcomes. Infants during the weaning period after six months of age are especially vulnerable to these deficiencies, and evidence shows that currently available foods and feeding practices contribute to poor nutrition outcomes.

Food-based approaches are among a set of 'nutrition-sensitive' policy interventions that play a key role in reducing undernutrition. This area is a priority for research and policy development since evidence shows that improving agricultural production and incomes is not sufficient to address the problem. But what is the best approach to enhancing the impact of agriculture for nutrition? While some interventions focus on increasing the production of nutritious foods for consumption by farming households, the focus of the value chain approach is to link agricultural production to a much wider population through markets. Making this link is key to achieving large-scale impacts. In short, the value chain approach focuses on the actors and processes that make the biggest difference in producing, processing and delivering foods to consumers. Using this framework, the accompanying report identifies key products and processes that can be leveraged to enhance the provision of nutrient-dense foods to populations affected by undernutrition.

Based on interviews with stakeholders in the private sector, government, development agencies, NGOs and research institutions, the report scopes a set of agricultural commodities identified as having potential for contributing to nutrient-dense foods, and selects two types of products for detailed value chain mapping: groundnut products and complementary foods. These product types were selected because they scored highly on five important conditions necessary for foods to contribute to reducing undernutrition. They were also selected because analysing these products offers potential for uptake of findings through the efforts of development actors and public-private partnerships. These bodies are actively looking to invest in such product types in order to improve nutrition outcomes.

The accompanying report maps current value chains for groundnut and complementary food products, concentrating on whether they meet the key criteria of availability, affordability, acceptability and nutritional quality. These conditions are assessed in detail across key elements of the value chain: consumer groups, supplies of inputs, processing, distribution and business interest. Based on this mapping, the report analyses the key challenges preventing these products from having a greater impact on undernutrition and assesses options that might overcome these challenges, as well as areas where further evidence is needed to support choosing a particular option. The main findings of this analysis are summarised below.

For groundnut products, ubiquitous aflatoxin contamination of supplies poses major risks to human health. This poses substantial health consequences, especially for infants. At present, the products with the highest levels of contamination tend to be diverted towards the poor. New micronutrient-fortified groundnut products and distribution systems are

needed to target nutrient-dense products towards key populations affected by undernutrition: women, children and poor consumers. However, to successfully address undernutrition, these products must address aflatoxin contamination. This will require an integrated approach with coordinated interventions across the value chain, from farmers and aggregators to retailers and consumers. Promoting a particular groundnut product in the absence of efforts at other stages of the value chain is unlikely to be successful. Further, efforts to bring new products to market must, at a minimum, avoid exacerbating the steering of aflatoxin towards poor and vulnerable populations. Options for intervention include creating traceable supply chains that incentivise actors to reduce infection with aflatoxin-carrying fungi, using non-commercial distribution systems to control the consumer end of the value chain, raising consumer awareness about aflatoxin and developing alternative uses for contaminated groundnuts that remove them from the food system.

The second product type, complementary foods, has high potential to address undernutrition among infants and young children; they are also acceptable to consumers and already have distribution systems in most cities. The key to enhancing their impact is controlling their nutrition quality and signalling this quality to consumers, while marketing products at an affordable price. Well-established value chains for these products provide opportunities for intervention to leverage existing systems. A number of initiatives involving public and private actors have developed and promoted fortified complementary food products and encouraged good infant feeding practices. However, making nutrient-dense products available to vulnerable populations, especially in rural areas, and guaranteeing their quality while maintaining a price that is affordable remain major challenges. Options to enhance the value chains for complementary foods include developing a certification scheme to guarantee nutrition quality; working with particular food processors to upgrade operations and to market to the poor; enhancing the capacities of small businesses; and advocating for leading firms to pursue 'bottom of the pyramid' approaches.

Drawing together lessons from the mapping of individual products, the report highlights broader challenges to the provision of nutrient-dense foods in Ghana. The first of these is contamination with aflatoxin, a by-product that is commonly found at dangerous levels in key foods in Ghana, and which is associated with infant stunting. Addressing aflatoxin requires coordinated value chain action and the generation of incentives to implement improved practices. Secondly, the absence of mechanisms to signal the nutritional value of foods to consumers affects many types of products and is a key area for policy intervention. Traceable value chains are largely absent in domestic food markets, and generating traceability is key to creating incentives and upgrading nutrient quality and food safety. Finally, private sector actors in Ghana face challenges to building viable business models that market nutrient-dense foods to poor consumers. Policy and programmatic interventions to strengthen value chains and the role of the private sector in providing nutrient-dense foods should target these for cross-cutting challenges. The accompanying report assesses the feasibility of policy options to address these challenges and the evidence required to support effective action.