

Impact Story 17:

Increasing the consumption of nutrient-dense foods through schools in Tanzania

THE OPPORTUNITY

Micronutrient deficiencies remain a serious problem in Tanzania among young children and women of reproductive age¹ and can lead to life-long consequences such as impaired growth and development and reduced human potential². While most national data are collected among pre-school aged children (< 5 years of age) and women of reproductive age, some smaller subnational studies have been conducted among school-aged children and found similar discouraging trends. For example, in Kikwawile and Kiberege wards in southeastern Tanzania, 14% and 35% of children 6-12 years of age attending rural school were found to be anaemic and deficient in vitamin A, respectively, with children attending the most rural schools being five times more likely to have at least one micronutrient deficiency³. Additionally, in Chamwino and Kilosa districts in Dodoma and Morogoro regions, 43% of school children 5-10 years of age were anaemic and 29%, 25%, and 26% were deficient in iron, vitamin A, and zinc, respectively⁴.



THE SOLUTION

In 2021, the first National School Feeding Guideline was launched by the Ministry of Education in Tanzania⁵. The guideline provides uniform guidance for schools, communities, and the local government to develop, coordinate, and oversee school feeding programs and includes a specific directive for schools to incorporate fortified foods (industrially and/or biofortified) into school meals. In the same year, the Government of Tanzania released the second National Multisectoral Nutrition Action Plan (NMNAP II, 2022-2026)⁶ as a follow on to the first NMNAP that operated from 2016-2021⁷. The NMNAP II commits to a number of priority actions and activities to address undernutrition in Tanzania focused on increasing the availability and accessibility of safe and nutritious foods at all levels through advocacy and capacity building to businesses on the production, packaging, and distribution of convenient, nutritious and affordable foods. It includes the provision of at least one fortified meal at the school level in accordance with the school feeding guideline of 2020.

The launch of the National School Feeding Guideline offers a strong lifeline to scale the provision of nutrient-dense fortified foods in schools. GAIN is supporting the implementation of this national mandate through two projects that target different actors along the fortification value chain with the aim of increasing the consumption of nutrient-dense industrially fortified and biofortified foods among school children (Figure 1).

From 2020-2022, GAIN and HarvestPlus, in collaboration with the Government of Tanzania, launched the [Commercialisation of Biofortified Crops \(CBC\)](#) programme. The CBC programme focused on increasing the consumption of biofortified provitamin A maize and high iron beans through school feeding programmes and to connect schools to distribution channels. HarvestPlus activities focused on the supply end to increase seed uptake and production of these two biofortified foods at farmer level. GAIN activities focused on training processors, creating demand among schools in 9 regions, and creating linkages between key actors from both supply and demand sides (e.g., farmers, processors, schools and markets).

1 <https://dhsprogram.com/pubs/pdf/SR233/SR233.pdf>

2 <https://doi.org/10.1159/000371618>

3 <https://doi.org/10.1371/journal.pntd.0010261>

4 <https://www.mdpi.com/2072-6643/13/5/1576>

5 <https://www.gainhealth.org/media/news/now-launched-tanzanias-first-national-school-feeding-guideline>

6 <https://www.pmo.go.tz/uploads/documents/sw-1646121553-NMNAP.pdf>

7 https://extranet.who.int/nutrition/gina/sites/default/filesstore/1_TZA%202016%20NMNAP.pdf

Additionally, from 2021-2022, GAIN and Sanku initiated a project aimed at filling the gap in availability of high-quality fortified maize flour by working with several mills to build up their technical capacity to produce high-quality fortified maize flour and supply it to schools in six regions of the Lake Zone.

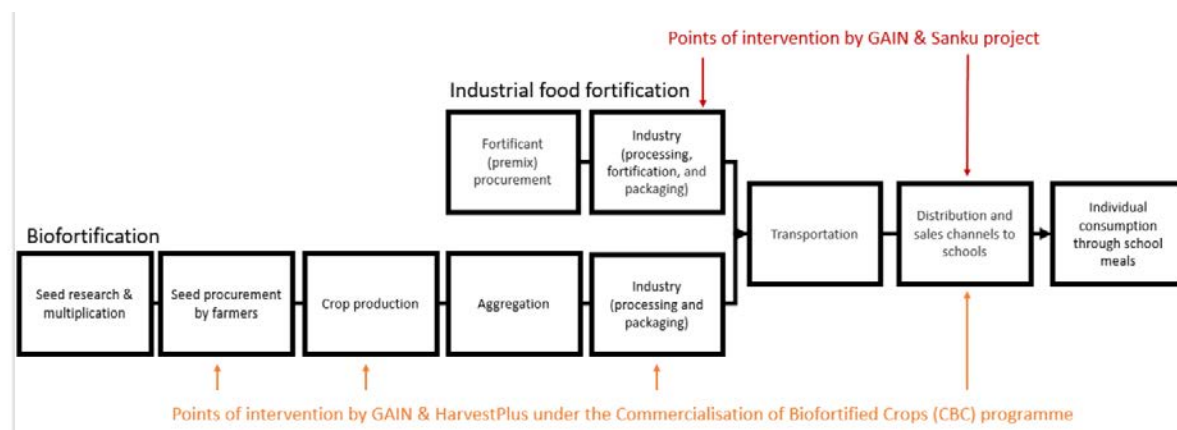


Figure 4: Food fortification value chain and points of intervention by GAIN and partners to increase availability of industrially fortified and biofortified foods and purchase by schools in Tanzania

THE IMPACT

Under the Commercialisation of Biofortified Crops (CBC) programme:

- 86 processors and suppliers of foods to schools were mapped and trained on biofortified crops, sourcing, and product development
- Over 155 heads of schools were trained on biofortified foods, sourcing, and importance of increasing their consumption and incorporating it in school feeding programs
- 30 schools, 30 open markets, and 3 national radio stations were reached with a market activation campaign that included tasting sessions for vitamin A maize food products (e.g., porridge, ugali, and makande) and education on the benefits of consuming biofortified foods
- Linked key actors, such as Afco investment, with farmers from Iringa to supply provitamin A maize flour in Arusha and Kigoma
- By September 2022, 51,450 students in 65 schools were consuming 375,150 kg provitamin A maize and 370,920 kg high iron beans

Under the GAIN-Sanku project:

- 23 mills were provided with new dosifiers (machines that introduce the fortificants during milling), premix, training on food safety, and support for registering their business and product with the authorities (a requirement to be on the list of suppliers to schools)
- 12 awareness sessions were held with schools and local leaders to inform them of the new school feeding guideline, connect them with suppliers, and educate them on the importance of consuming industrially fortified foods
- By 2022, 69 schools with an estimated 34,500 students were purchasing fortified flour from supported millers

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