Biofortified school feeding is a sustainable solution to increase micronutrient consumption in schools

Increasing micronutrient density of school meals in Tanzania by introducing nutrient-enriched crops

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NECs	Nutrient Enrichment of Crops = biofortification
HIB	High iron beans
PVA	Provitamin A

1 Global Alliance for Improved Nutrition (GAIN), Kenya.
2 Global Alliance for Improved Nutrition (GAIN), Tanzania.

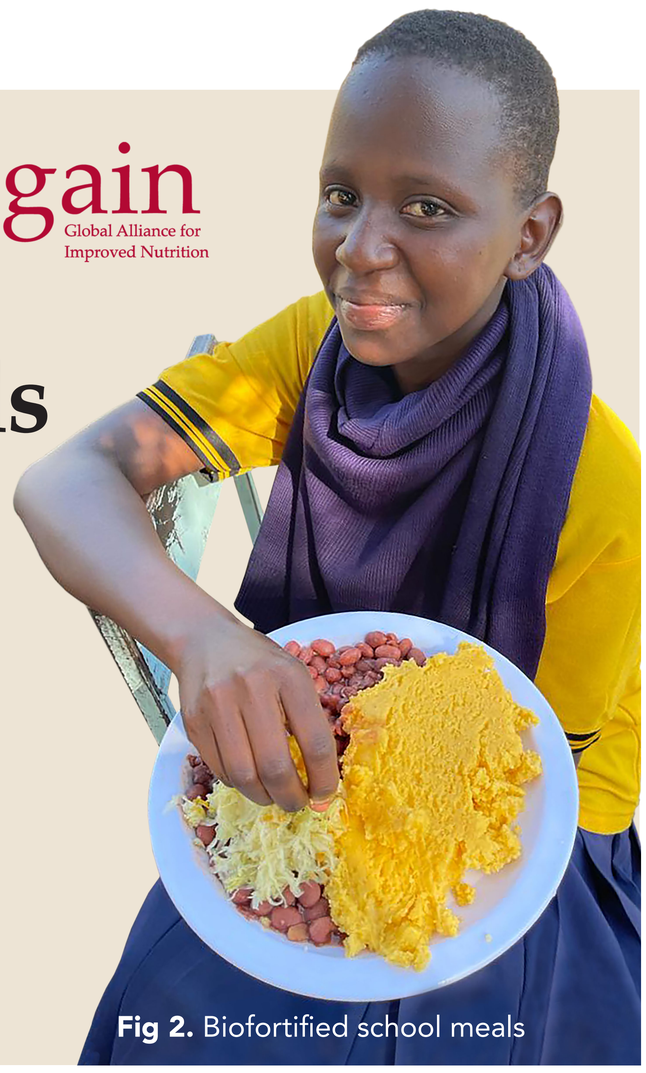
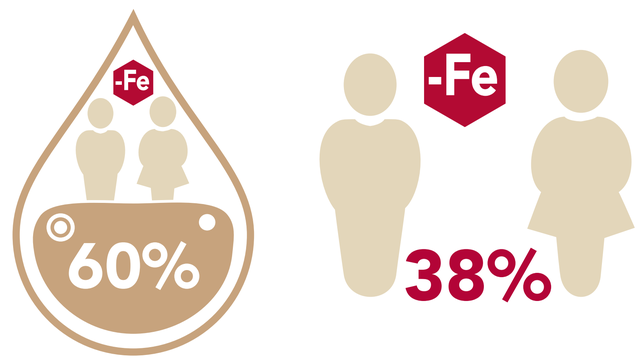


Fig 2. Biofortified school meals

Background:

In Tanzania, **60%** children under five suffer from iron deficiency anaemia and **38%** from Vitamin A deficiency. Nutrient Enrichment of Crops (NECs), is a sustainable and cost-effective approach to increase micronutrient consumption in foods, particularly in school feeding programs. However, scaling-up production and consumption of NECs faces challenges such as cultural perceptions, limited producer access to seeds and knowledge, and the absence of targeted policies.



GAIN's Commercialization of Biofortified Crops (CBC) project in Tanzania aimed to:

- Fill key nutrient gaps for school-going children by introducing high iron beans (HIB) and provitamin A (PVA) maize to national school feeding programs.
- Improving the supply of NEC seeds, the production and availability of NEC foods, increasing demand for HIB and PVA maize among schools and value chain actors, and integrating biofortification into policies and legal frameworks.

Methods:

1. Processors and suppliers were trained in sourcing HIB and PVA maize (**Fig 1**), new product development, commercialization, and access to finance.
2. School heads and children were trained on nutrition and biofortification, including strengthening supply chains for HIB and PVA maize.
3. Multistakeholder meetings were held, linking government, farmers, processors, suppliers, retailers, schools, and markets.

Fig 1. Processors training sourcing PVA maize

Results:

86 suppliers and processors and **121** heads of schools trained

30,097 students reached through in-school activities, e.g., cooking demonstrations

1,407 metric tonnes of PVA maize & **2,353** metric tonnes HIB were used for school feeding in **118** schools

- An estimated **109,853** children benefitted from micronutrient-enriched meals (**Fig 2**).
- The project supported the development of **National School Feeding Guidelines** that incorporate the consumption of NECs in school meals, and the mainstreaming of biofortification into key government policies.

Conclusion:

Biofortified school feeding is a sustainable solution to increase micronutrient consumption in school-going children. Feeding guidelines and key policies ensure biofortification is regarded as key nutrient intervention by the Government of Tanzania, further shaping production and demand.

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