



**Knowledge hub**  
-  
**Collection of best practices**

**Summary of the best practice**

1. Title of the best practice (e.g. name of policy, programme, project, etc.) \*

Home Grown School Feeding with inclusion of Nutritious Biofortified Crops

2. Country or countries where the practice is implemented \*

Zimbabwe, Tanzania, Malawi and Zambia

3. Please select the **most relevant** Action Track(s) the best practice applies to \*

- Action Track 1. Inclusive, equitable, safe, and healthy schools
- Action Track 2. Learning and skills for life, work, and sustainable development
- Action Track 3. Teachers, teaching and the teaching profession
- Action Track 4. Digital learning and transformation
- Action Track 5. Financing of education

4. Implementation lead/partner organization(s) \*

HarvestPlus

5. Key words (5-15 words): Please add key descriptive words around aims, modalities, target groups etc. \*

Biofortified crops grown in the school fields for school meals consumption

6. What makes it a best practice? \*

Biofortified crops (natural staple crops with higher levels of micronutrients) are available in over 100 countries and can be integrated into school feeding programs around the world without significant behavior change or increased costs. With better nutrition, children can lead healthier more productive lives.

## **Description of the best practice**

## 7. Introduction (350-400 words)

This section should ideally provide the context of, and justification for, the practice and address the following issues:

- i) Which population was affected?
- ii) What was the problem that needed to be addressed?
- iii) Which approach was taken and what objectives were achieved? \*

Nearly 370 million children depend on school meals for a significant part of their daily sustenance; these meals thus play a key role in determining whether these children succeed in school and are able to set a path for healthy, productive adulthood. It is tragic that, currently, at least 1.5 billion school-age children are out of school worldwide because of the COVID-19 pandemic, missing both meals and learning.

Schools feeding is now recognized as a key program within social protection (SP) systems. It provides powerful incentives to send children to school, especially girls who are less likely to be enrolled in and/or attend school regularly. School feeding is often the SP program with the highest coverage and is the most common SP program found in low and middle income countries. In many communities, children arrive at school hungry and as a result their ability to learn is impaired, reducing the return on investment in education for both children and governments. In these situations, feeding early in the day is important to foster child learning as well as later in the day. This feeding constitutes a significant component of children's diets

Harvestplus has employed the following approaches :

1. Leveraging its core program of enabling farmers to adopt biofortified crops. The bulk of this (up to 60%) is consumed within the household improving family nutrition as a whole.
2. Developing and piloting nutrition-focused menus and food preparation techniques for school feeding programs
3. Substituting other grain with a biofortified alternative (largely (non-profit led) supply lines to school feeding programs such as WFP
4. Conducting nutritional efficacy studies and supply chain diagnostics to enable systematic scale up
5. Building the capacity of supply chain actors such as SMEs to ensure high quality, well packaged, timely and efficient delivery of school feeding.
6. Providing nutrition education to schoolchildren regarding the cognitive and physical benefits of micronutrient consumption and healthy and diverse diets overall.

## 8. Implementation (350-450 words)

Please describe the implementation modalities or processes, where possible in relation to:

- i) What are the main activities carried out?
- ii) When and where the activities were carried out (including the start date and whether it is ongoing)?
- iii) Who were the key implementation actors and collaborators? (civil society organizations, private sector, foundations, coalitions, networks etc.)?
- iv) What were the resources needed (budget and sources) for the implementation?

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Harvestplus carried out a number of activities in various countries on School feeding i.e. Zimbabwe, Tanzania, Malawi and Zambia. Some of the activities carried out by HarvestPlus include holding community meetings, provided sample seed packs, and assisted with demonstration plots. In Zimbabwe, where maize is the mainstay of daily diets, HarvestPlus has worked with partners to pilot the introduction of vitamin A maize and high-iron beans in 612 schools.

In Tanzania, biofortified food-based menus were supplied to over 2000 children in an initial pilot in early 2021. HarvestPlus trained heads of school, food suppliers to schools, education and nutrition officers in four regions on how to strengthen the supply chain of high iron beans and vitamin A maize in schools. This activity is still on-going in 9 districts in Tanzania.

In 2017, for Zambia, while feeding school children has always been a key part of the government's nutrition strategy, sometimes funding constraints leave a gap between aspirations and reality. World Food Program (WFP) in partnership with HarvestPlus and in collaboration with the Ministries of Education and Agriculture, piloted the school feeding program. Activities undertaken were i) sensitisation with the schools and parents that were provided with Vitamin A Orange Maize Meal for introduction in their homes, ii) Pupils were feed with vitamin A maize Nsima (thick porridge),

In Malawi, HarvestPlus promotes the production and consumption of biofortified food crops (vitamin A maize, iron beans and orange fleshed sweet potato) under the Malawi School Feeding program, in collaboration with Nascent Solutions (the government contractor), Ministries of Education and Agriculture, and also in collaboration with other partners.

## 9. Results – outputs and outcomes (250-350 words)

To the extent possible, please reply to the questions below:

- i) How was the practice identified as transformative? (e.g., impact on policies, impact on management processes, impact on delivery arrangements or education monitoring, impact on teachers, learners and beneficiary communities etc.);
- ii) What were the concrete results achieved with regard to outputs and outcomes?
- iii) Has an assessment of the practice been carried out? If yes, what were the results? \*

The Global Child Nutrition Foundation's Global School Meals Survey includes biofortification as one of its standard questions and will be used to develop a baseline database on the current state of school feeding programs in all countries. Mainstreaming biofortification into these surveys is a key indicator of governments' and global bodies' commitments to improving childhood nutrition. HarvestPlus welcomes these initiatives by governments and global organizations that embrace innovations such as biofortification to fight hidden hunger through school meals and other food-based programs. This investment in human capital will pay dividends for many years to come.

## 10. Lessons learnt (300 words)

To the extent possible, please reply to the following questions:

- i) What were the key triggers for transformation?
- ii) What worked really well – what facilitated this?
- iii) What did not work – why did it not work? \*

Local supply chains need a dedicated "supply line" for school feeding to support high quality and timely procurement. HarvestPlus works to build nutrition resilience and livelihoods by connecting more nutritious crops to local school feeding supply chains. HarvestPlus works with partners to aggregate farmers (farmer producer companies) which will enable economies of scale, coordination and traceability to sustainable and reliable supply schools and children with nutritious foods. By engaging farming households in these local institutional supply chains, HarvestPlus ensures benefit to farmers from biofortified foods directly consumed at the household level, and livelihood gains from high yielding varieties and offtake linkages; and provides small and medium enterprises (SMEs) with broader program benefits such as financial investment and technical advice. HarvestPlus builds dedicated supply lines in proximity to raw material suppliers selected for school feeding and trains SMEs to meet specific food quality (SQMS) requirements.

## 11. Conclusions (250 words)

Please describe why may this intervention be considered a “best practice”. What recommendations can be made for those intending to adopt the documented “best practice” or how can it help people working on the same issue(s)? \*

School feeding programs represent immediate opportunities to adopt biofortified crops as an effective means to alleviate vitamin A, iron and zinc deficiency sustainably. Substituting biofortified varieties for conventional ones has the potential to meaningfully increase micronutrient intakes and lowers the overall cost of a healthy diet. Biofortification of staple crops is a cost-effective method to reach tens of millions of people on a sustainable basis. Biofortification involves a one-time investment into a crop system that continue to fortify and sustain thereby keeping recurrent costs low. The beneficiary farmers continue grow and benefit from the crops.

School feeding programs and staple foods in general offer significant opportunity for equitable access to micronutrients across gender and other social economic lines. A phased approach to integrating biofortified products with school feeding programs can address micronutrient deficiencies at scale, cost effectively and equitably

## 12. Further reading

Please provide a list and URLs of key reference documents for additional information on the “best practice” for those who may be interested in knowing how the results benefited the beneficiary group/s. \*

1. <https://www.herald.co.zw/biofortified-crops-key-in-fight-against-hidden-hunger/>
2. <https://gcnf.org/covid/>
3. <https://www.wfp.org/home-grown-school-feeding>
4. <https://lfspzim.com/>
5. <https://www.fao.org/publications/sofi/2020/en/>
6. <https://www.harvestplus.org/taking-vitamin-a-orange-maize-to-zambian-schoolchildren/>