Improving Lives With Nutrient-Enriched Staple Crops

Micronutrient deficiency, also known as "hidden hunger," afflicts about 2.5 billion people worldwide. In many low- and middle-income countries, it contributes to high rates of stunting, vision impairment, anemia, problems in pregnancy, and other health challenges that harm people's quality of life, productivity, and ability to reach their full potential.

The HarvestPlus Response to Hidden Hunger: Biofortified Crops

HarvestPlus is a program of the CGIAR and leads a global movement to scale production and consumption of staple food crops that are bred to be high-yielding, climate-smart, and rich in iron, zinc, or vitamin A—micronutrients that are needed to maintain good health and proper human development.

These "biofortified" crops are a proven, sustainable, cost-effective way to improve food, nutrition, and livelihood security, particularly for the hundreds of millions of smallholder farming families in low- and middle-income countries who cannot afford nutritionally diverse diets and are often not reached by food fortification and supplementation. Biofortified crops are also bred to address the specific nutritional needs of women, adolescent girls, and young children.

HarvestPlus at a Glance

- The world's leading experts in biofortification development and implementation.
- Established in 2003 within the CGIAR global agricultural research system.
- A staff of more than 120, based in 14 countries
- Active globally, with a focus on country ownership and co-creation with farmers.
- Founder Howarth "Howdy" Bouis received the World Food Prize in 2016 in recognition of his efforts to advance the concept of biofortification.

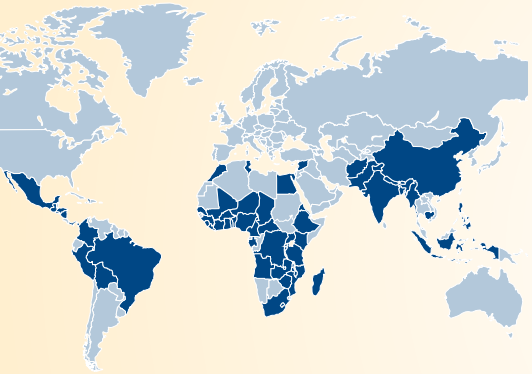
Our Mission

Engage public, private, and NGO partners worldwide to sustainably scale biofortification to build more-nutritious, inclusive food systems that benefit everyone. **Our objective is to reach 1 billion people with nutritious biofortified crops and foods by 2030.**

HarvestPlus Country Program Locations:

Africa: DR Congo, Kenya, Malawi, Nigeria, Tanzania, Uganda, Zambia, Zimbabwe

Asia: Bangladesh, India, Indonesia, Pakistan



Countries where biofortified crops are currently grown or in testing (dark blue)

Key Statistics (end 2021)

- **600+ partners worldwide** in the public, private, NGO, and global sectors helping advance biofortification.
- **280+ varieties of biofortified staple crops** available in 30 countries
- **12.8M smallholder farming households** (64M people) growing these crops.
- **53% of farmers trained in 2021 were women** (134,000) in biofortified crop production and marketing.
- **40+ research studies and 100+ scientific papers published** proving feasibility, nutrition impact, and farmer and consumer adoption of biofortification.

HARVESTPLUS FOCUS CROPS

IRON CROPS
Pearl Millet
Bean

VITAMIN A CROPS
Cassava
Orange Sweet Potato
Maize

ZINC CROPS
Maize
Rice
Wheat

OUR CORE CAPABILITIES

Engage and empower smallholder farming households to grow biofortified crops and link farmers with markets to sell their surplus harvest.

Strengthen biofortified seed and food value chains to benefit smallholder farming households, through partnerships with seed multipliers, seed/input distributors, crop processors, consumer food businesses, institutions, and others.

Provide technical leadership on "mainstreaming" biofortified crop development (micronutrient targeting) in global, national, and private-sector seed breeding programs.

Expand and communicate the scientific evidence base for biofortification through research collaborations; facilitation of knowledge and learning exchange among stakeholders; impact measurement and evaluation; and communications through multiple channels.

Strengthen enabling environments for biofortification (policies, programs, regulations, standards) through evidence-led engagement with global, regional, and national decision makers, standard-setting bodies, and multilateral agencies.

Partnerships: Key to scaling biofortification

HarvestPlus shares knowledge, strategic guidance, expertise, and lessons learned with partners so they can build sustainable biofortified food systems.

> "Biofortification, along with food fortification, is the Indonesian Government's first and foremost strategy to combat nutritional challenges."

— Anang Noegroho, Director for Food and Agriculture at the Ministry of National Development Planning of the Republic of Indonesia (BAPPENAS), which is working with HarvestPlus to scale zinc rice.

Examples of project leadership in biofortification by HarvestPlus:

Multisectoral Nutrition and Health Project (PMNS)
Country: DRC
Funder: World Bank
Farmer Reach: 100,000 over three years with vitamin A maize, cassava and sweet potato, and iron bean

Bihar and Odisha Nutrition Initiative
Country: India (2 states)
Funder: Bill & Melinda Gates Foundation
Farmer Reach: 40,000 (as of 2020) with zinc wheat

Program Funders: UK Government; The Bill & Melinda Gates Foundation, Government of Canada, The John D. and Catherine T. MacArthur Foundation, United States Agency for International Development/U.S. Feed the Future Initiative, Waterloo Foundation, Children's Investment Fund Foundation (CIFF), Government of Canada

Partner with us to make food systems more nutritious, inclusive, and sustainable.

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HarvestPlus
Better Crops • Better Nutrition

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