



Dear Friends,

As we mark the 20th anniversary of HarvestPlus in 2023, I am pleased to share progress towards our mission of addressing hidden hunger in the Global South through biofortification. Our journey to improve nutrition and health is making a difference

in the lives of the most vulnerable people. It is heartening to share that in 2023, over 103 million people in farming families across Africa, Asia, and Latin America were eating nutrient-enriched foods made from biofortified crops that they grew on their farms, and over 227 million people were accessing through markets. There is additional reach of biofortified crops through organizations like International Potato Center (CIP), The Alliance of Bioversity International and CIAT, and others. In a world where three billion people cannot afford a healthy diet, our work is making a meaningful contribution in providing healthy and affordable nutritious foods to over 330 million people. However, much more needs to be done to enrich food systems and provide access to safe, affordable healthy diets, especially for the most vulnerable people.

Through strategic partnerships with public, private, and civil society actors and robust research alliances with CGIAR crop breeding centers and national agricultural research and extension systems (NARES), we have significantly expanded the production and distribution of biofortified crops. By the end of 2023, more than 443 varieties of biofortified crops were released in more than 40 countries, and over 20.7 million farming households were cultivating these varieties on their farms.

Our evidence led policy and regulatory reform efforts continue to successfully influence national and regional policies and shape nutrition agendas, leading to an enabling environment for public and private sector investments and support for biofortified crops. This is essential for accelerated uptake, sustainability, and long-term impact.

We maintained a focus on ensuring women, adolescent girls, and young children are prioritized and benefit from biofortification,

and efforts to increase the economic empowerment of women smallholder farmers and women-led SMEs are gaining momentum. HarvestPlus has also made significant strides in enriching school meal programs with biofortified foods. By incorporating these nutrient-rich crops into school feeding initiatives, we are not only addressing malnutrition but also fostering healthier, more productive futures for children around the world and contributing to nation building.

During 2023, HarvestPlus integrated with IFPRI and the wider CGIAR, strengthening our nutrition research, evidence generation, and policy and advocacy efforts. With our crop development partners across CGIAR and national agriculture research systems, we will help facilitate better and more nutritious crop varieties and innovations are developed and released. These innovations will be delivered to our beneficiaries through private and public partnerships including with HarvestPlus Solutions, the scaling arm of HarvestPlus, with a goal of improving the lives and resilience of 1 billion people in the next decade. I extend my sincere gratitude and appreciation to all the members of the HarvestPlus Program Advisory Committee (PAC) as their work comes to an end with the successful integration. The PAC played a critical role in guiding and providing oversight over the last 20 years and placing the HarvestPlus program in this position of strength.

This milestone year reflects the dedication and passion of our team members, partners, donors, and supporters. Together, we have made meaningful strides in advancing our mission, for which we are very grateful. The path ahead is full of opportunities to deepen the impact and improve lives of millions more, drive further innovation, and continue our mission to alleviate malnutrition globally.

Thank you for standing with us on this journey. Together, we are creating more nutritious food systems and improving lives.

With gratitude, Arun Baral



HarvestPlus Leadership

Arun Baral
Chief Executive Officer

Erick Boy
Chief Nutritionist

Wolfgang Pfeiffer Senior Advisor

Jocelyn (Olyn) Panlilio Business Manager, Budgets, Contracts and Grants

HarvestPlus improves nutrition and public health by developing and promoting biofortified food crops that are rich in vitamins and minerals, and providing global leadership on biofortification evidence and technology.

HarvestPlus works across CGIAR as part of the International Food Policy Research Institute (IFPRI).







Key Metrics in 2023:

350M

people were eating biofortified foods.
The biofortified food in the markets was enough to feed an estimated 227 million people, in addition to 103 million who ate what they grew on their farms.

smallholder farming households growing nutrient enriched crop varieties.

3000+

partners worldwide committed to scaling up biofortification, mostly small and medium-sized enterprises.

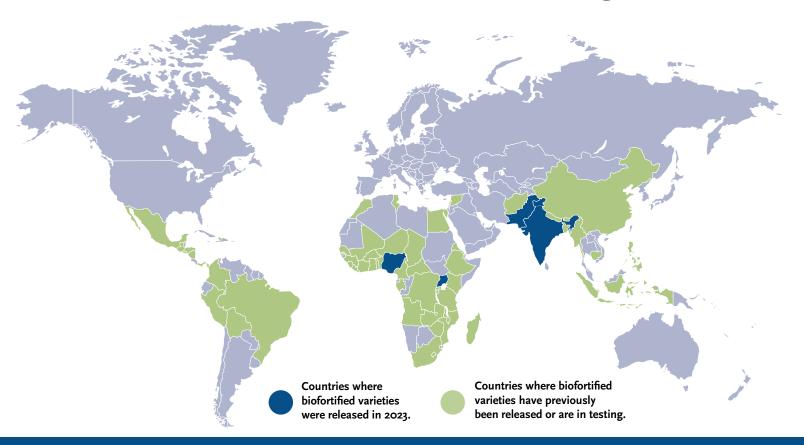
297,000

farmers and value chain actors received training and technical support to strengthen their ability to grow and sell biofortified crops.

166,000 f

metric tons (MT) of commercial biofortified seed produced and distributed.

443 varieties of 13 biofortified staple crops available for farmers to grow*



10 new biofortified varieties were approved by governments for farmers to grow them in four countries in 2023.

new varieties of Zinc Wheat

new varieties of Iron Pearl Millet

new varieties of Vitamin A Maize

^{*} This represents all the biofortified varieties of which development and release was supported by HarvestPlus, CGIAR, and national research partners.

HarvestPlus: 20 Years of Transforming Food Systems Through Climate Smart Biofortified Crops – Building Resilience





By the end of 2023, over 330 million people were eating biofortified food, including 103 million on farms. In addition, biofortified food available in the markets was enough to feed an estimated 227 million people. HarvestPlus is at the forefront of transforming food systems by developing, disseminating, and scaling these nutrient-enriched varieties of the staple crops that most vulnerable people rely on. We achieved this through partnerships forged with more than 3,000 global and national partners, mostly small and medium enterprises who are committed to scaling up biofortification.

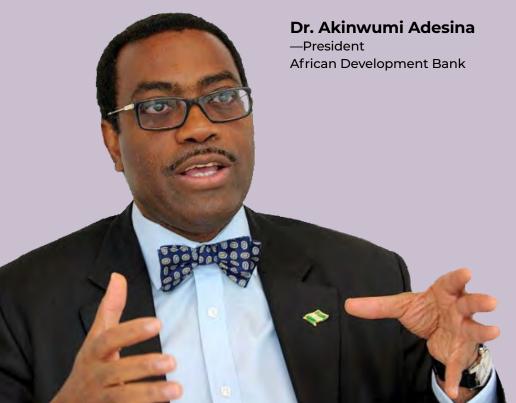
Through biofortification, HarvestPlus ensures that essential minerals and vitamins such as zinc, iron, and vitamin A are embedded in the food systems through staple crops that smallholder farmers grow. Building capacity and strengthening the ecosystem that supports biofortified crops is essential for the accelerated uptake and consumption of nutritious foods made from our crops. In 2023, HarvestPlus empowered more than 17.1 million smallholder farmers and over 2,900 value chain actors with knowledge and tools to improve livelihoods and build their resilience to shocks, ensuring that vulnerable communities have access to affordable, safe and nutritious foods.

Celebrating Our 20th Anniversary

HarvestPlus celebrated its 20th anniversary in 2023, after two decades of research and impact. Several of our biofortification champions reinforced their commitment to support biofortification to address malnutrition and sustainably transforming food systems. Please visit and subscribe to our <u>YouTube channel</u> to hear from our partners and stakeholders on this, and learn more about our 20 years of impact <u>here</u>.



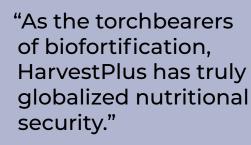
"Biofortification is a critical tool to tackle malnutrition and ensure food security in Africa."



"Biofortification...is one of the smartest ways we have to build nourishing and sustainable food systems."

Rt Hon Andrew Mitchell

—Minister of State, Foreign,Commonwealth & Development Office



Dr. Jacqueline Hughes—Director General, ICRISAT

Global Progress in Scaling Biofortified Crops and Foods





In 2023, HarvestPlus and partners continued making an impact by accelerating delivery of nutritious crops and foods to the last mile, reaching those who need it the most. The seed production of grain crops (wheat, maize, rice, beans and millet) increased by 61 percent and root crops like vitamin A cassava by 57 percent from 2022. These efforts led to an overall increase of 21 percent in the farming household growing biofortified crops, from 17.2 to 20.7 million, over the previous year.

For deeper insights into catalytic scaling efforts and the positive impact made by HarvestPlus and our partners across the globe, please read below some of the 2023 results of our country programs.

Bangladesh: In 2023, 40 percent more households were reached with zinc rice and 22 percent more with zinc wheat produced, compared to 2022. In the Barobari Bazar, a century-old rice market hub, small and medium scale enterprises (SMEs) are witnessing consistent growth in the production and marketing of zinc rice seed. Read more here.



Democratic Republic Congo: HarvestPlus continued to make strides in strengthening seed systems and accelerating the production and consumption of biofortified food in the PMNS project. Seed production increased several folds from 2022, leading to a 75 percent increase in the number of households benefiting from biofortified seed and setting a strong footing for greater impact in coming years. Our work is contributing to addressing critical nutritional needs and enhancing resilience in a humanitarian context in the country.

India: HarvestPlus achieved meaningful progress enhancing agricultural productivity and nutrition. Zinc-enriched seed production increased five times compared to 2022, demonstrating the scalability of our catalytic delivery model in effectively addressing gaps in the seed and food systems. Our strategic partnership with the National Rural Livelihood Mission (NRLM), a rural poverty alleviation project of the government of India, underscores our commitment to empowering millions of women farmers to facilitate the widespread adoption of nutritious crops. Additionally, our innovative school feeding program funded by the Happel Foundation is

delivering nutrition education and ensuring that poor children have access to nutritious foods made from biofortified crops. Read more about the school feeding program here



Indonesia: The Indonesian government has continued investing in biofortification, following strategic plans developed with HarvestPlus' engagement and evidence-led advocacy. As a result of this ownership by the government, zinc rice seed production increased by over 200 percent from 2022 to 2023.

Kenya: In Kenya, we introduced an innovative home-grown school feeding program in partnership with AGRA and The Rockefeller Foundation. In addition, the REACTS project funded by the Government of Canada brought in additional support to seed producers and smallholder farmers. The project, implemented with World Vision Canada, will help ensure sustainable impact of iron beans at scale through social protection programs, a key lever for scale of our strategy.

Malawi: HarvestPlus continued to partner with the government to build an enabling environment for biofortified crops through reforms in certain national policies. Malawi's National Agriculture Policy now includes targets for incorporating biofortified seeds and grains across a range of research and development, seed production, extension, and public procurement related policy actions. Our school feeding projects implemented in partnership with the Waterloo Foundation and AGRA, and The Rockefeller Foundation enrolled 120 new schools. The production of biofortified grain significantly increased and thousands of learners are now eating nutritious foods in primary and secondary schools in five districts. Read more here.



Nigeria: HarvestPlus continued to transform food systems by scaling up the production and consumption of vitamin A maize and strengthening the seed marketing system by establishing decentralized seed distribution models to increase farmers access to quality seeds. Through strategic planning and collaborations, the average time from variety release to market was reduced by more than 50 percent for the first iron pearl millet variety (IPM) in Nigeria. This was accomplished

by frontloading early generation seed (EGS) production pre-release, creating demand for the seed, and fostering private sector investment in seed production and distribution. More than 240MT of certified seed of IPM was produced and marketed within two years of release in Northern Nigeria. Read more <a href="https://example.com/here-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-seed-early-



Pakistan: HarvestPlus and its partners achieved a major milestone in Pakistan's agricultural landscape through increased market share of high zinc wheat varieties. HarvestPlus has been instrumental in facilitating the rapid adoption of nutritious varieties by farmers, improving their livelihoods and resilience. As a result of our collaborative efforts with partners across the value chain, zinc wheat variety Akbar 2019 has been cultivated on 42 percent of the wheat cropping area in the 2023/24 production season. Read more about this great success here. This achievement is complemented by HarvestPlus' efforts to empower women and small holder farmers through knowledge and capacity building, further driving sustainable agricultural development and nutritional improvements.



Tanzania: The home-grown school feeding program in partnership with AGRA funded by The Rockefeller Foundation sensitized over 100,000 school children on the benefits of eating vitamin A maize and iron beans. This will play a foundational role to step up progress in 2024 and provide nutritious meals to thousands of school children.

Uganda: HarvestPlus received a prestigious award as a nutrition champion from the Nutrition Society of Uganda for its outstanding effort in promoting biofortified crops in the country. A new project, Expanding Nutrients in Food Systems, was launched in the country (along with Pakistan, Bangladesh, India, and Zimbabwe) with the support of the Government of Canada. As result of catalytic efforts, the seed production of iron beans and vitamin A sweet potato doubled in 2023 compared to 2022.

Zambia: HarvestPlus continued to catalyze demand for iron beans, spurring major seed companies to produce and market them. Two major companies increased their production of iron beans to between 60 to 65 percent of their total bean seed production. As a result of these efforts, the quantity of iron bean seed

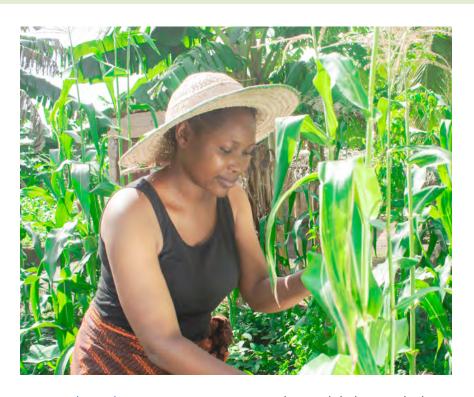
production in Zambia increased in 2023 by 90 percent from 2022. Demand for iron bean seed for government input distribution programs and development partners was a major driver for this growth, providing much-needed iron and zinc to smallholder farming households. Read more about our iron beans success story here.



Zimbabwe: Children and women suffering from high levels of vitamin A and iron deficiency gained increased access to nutritious foods as a result of efforts made by HarvestPlus and its partners. The commercialization of biofortified crops surged during the year, with three food companies launching biofortified food products. These companies collectively possess a monthly capacity to utilize 500MT of biofortified grains.

Also, as a result of collaborative efforts by HarvestPlus and partners aimed at <u>increasing</u> <u>demand</u> for biofortified crops, the seed production of vitamin A sweet potato increased by three times in 2023 over 2022.

Accelerating Impact Through HarvestPlus Solutions and its Network Partner Entities – Catalyzing Access to Affordable and Accessible Nutritious Foods



<u>HarvestPlus Solutions</u> (HPS) is a purpose-driven global networked organization headquartered in Washington, DC and a scaling arm of HarvestPlus. The organization aims to scale and commercialize nutrition innovations of <u>CGIAR</u> and partners to provide safe, affordable, and healthy diets to vulnerable populations; with biofortified staple crops as the backbone. Leveraging the delivery and scaling know-how, and track-record and relationships of HarvestPlus, HPS and its network partners

have built a differentiated value proposition to scale and commercialize innovations sustainably. HPS will further strengthen seed and food systems by unlocking bottlenecks to commercialization. Locally owned and managed HPS network partners in Asia and Africa will engage the private and public sector in biofortification and other nutritious crops to drive rapid adoption and uptake centered on sustainability. Network partners will build on local expertise, commercial approaches, and operational effectiveness to catalyze local value chains to create nutrition impact at scale.

Building partnership is key to HPS' approach to sustainable delivery of nutritious food to women, children, and those who need it the most. Global collaborations with COFCO and others are testament to its commitment to advancing international partnerships and innovations. In 2023, HPS forged partnerships with social enterprises like Arti Roller Flour Mills, AgroZee Organics, GreenDay and others to launch nutritious products for consumers. HPS also partnered with Yara International in the "Establishing Nutri-Farms with Smallholder Farmers" project in India, aimed at enhancing health and livelihood of smallholder farmers.

HPS network expansion now includes partner entities in Asian countries (India, Bangladesh, Pakistan and Indonesia), a newly established entity for Eastern Africa (to serve Kenya, Tanzania, and Uganda), and a partner entity in Nigeria. Expansion in more geographies is under way, including evaluating a Southern Africa network structure for Malawi, Zambia, and Zimbabwe.

Prioritizing Nutrition, Livelihood, and Resilience



The story of HarvestPlus began in the early 2003, when the world faced growing concerns about malnutrition and food security. HarvestPlus' mission was simple yet profound: to combat hidden hunger through biofortification, the process of increasing the density of micronutrients in widely consumed staple crops through conventional breeding techniques, agronomic practices, or genetic modification. Twenty years later, here's how our work is improving nutrition, livelihoods, and resilience through biofortification:

Nutrition: HarvestPlus' focus is on providing nutrient-enrich crops that farming families grow, eat, and sell, ensuring equitable access to women, children, and marginalized groups. For example, read our story from Nigeria here, to learn how smallholders are adopting iron pearl millet to improve their nutrition security and health in challenging environment.

Livelihood: By developing biofortified crops that are agronomically competitive and high-yielding, HarvestPlus creates new livelihood opportunities for smallholder farming households. We provide technical assistance, strategic guidance, and capacity building, and connect farmers with markets to sell their biofortified crops, enhancing their income potential. For example, read our story from Uganda here to learn how Vitamin A Sweet Potatoes are creating livelihood opportunities for smallholders.

Resilience: Climate-smart biofortified crops improve resilience and provide a sustainable source of nutrition. HarvestPlus works with over 3,000 global and national partners to ensure farmers can grow and sell these crops even in challenging conditions, enhancing food and nutrition security, and the resilience of local food systems. HarvestPlus supports farmers to grow and market biofortified crops, ultimately creating sustainable and resilient food systems for vulnerable communities globally. Read here to learn more about how we are bringing resilience to food systems.

Enriching School Meals

Vulnerable populations find it challenging to meet the essential dietary needs of growing children, especially in Africa and Asia where prevalence of malnutrition is high. HarvestPlus is making school meals nutritious by enriching them with nutrient-dense, biofortified crops, addressing both hunger and micronutrient deficiencies. HarvestPlus aims to improve the overall health and cognitive function of school-age children. These nutritious meals help keep children in schools, improve their ability to learn, and ultimately make them more productive in the long term.

By promoting the cultivation and consumption of biofortified crops through school meal programs, HarvestPlus supports smallholder farmers and helps build more resilient food systems.

In sub-Saharan Africa, where micronutrient deficiencies often lead to severe health issues, HarvestPlus has partnered with local communities and schools in Malawi to integrate biofortified crops into school meal programs. Vitamin A maize flour and porridge are popular with children and help to alleviate vitamin A deficiency. In addition to providing nutritious meals to children, these partnerships stimulate local agriculture, creating a positive feedback loop that benefits entire communities. Read more about biofortified school meals in Malawi here.

Similarly, in South Asia, where stunting and zinc and iron deficiencies are widespread, HarvestPlus is working with schools to incorporate biofortified zinc rice, iron pearl millet, and zinc wheat into meal plans. In India, the Nutri Patshala model is an innovative approach to increase nutrition awareness among school children along with access to nutritious foods. Read more here.

In Zambia, HarvestPlus' nutrient-dense porridges designed for schools won the Institute of Food Technologists, Seedling the Future grand prize. These porridges utilize biofortified food crops that are farmed and produced by women. As an additional benefit, marketing these porridges contributes to increased household incomes. Read more here.





Coping with Climate Change

The impact of climate change is already being felt globally, but more so in developing countries and vulnerable communities that have limited capacity for adaptation. Millions of people in Africa and Asia are struggling with more frequent and more damaging pest and disease infestations, floods, droughts, heat waves, and unpredictable weather patterns due to climate change.

As crop yields suffer, food prices rise, and dietary diversity becomes harder to access. HarvestPlus is working to reach smallholder farmers and their families with biofortified crops that adopt better to climate change and perform well under local conditions, thus improving livelihoods and providing affordable, and accessible sources of nutrition. In 2023, we bundled biofortified crops with training on good agronomic practices to build the climate adaptive capacity of millions of farmers.

In Bihar, India, for example, HarvestPlus partnered with state rural livelihoods missions and research organizations to offer climate-adapted crop varieties and advisories to empower farmers to <u>mitigate</u> the adverse effects of climate change by implementing climate-smart agriculture (CSA) practices.

We continue to develop and release nutrient dense crop varieties suited for dryland conditions – like the iron pearl millet <u>launched and commercialized</u> in Nigeria in 2023, is already reaching thousands of farmers and consumers. Iron pearl millet is also downy mildew tolerant, high temperature and drought tolerant, is early maturing in 70-75 days, and can provide 90 percent of daily iron needs.

We also <u>expanded access</u> to early maturing varieties, which can improve productivity and resilience. In Bangladesh, for example, early maturing varieties of zinc rice allows planting of an additional crop like iron lentil between the boro and aman rice growing seasons, contributing to crop diversity and soil health.

Promoting Gender Equality and Empowering Women Through Biofortification

In 2023, HarvestPlus made significant strides in promoting gender equality and empowering women through its biofortification initiatives. Over 152,000 women across Asia, Africa, and Latin America attended in-person capacity building training events on nutrition and agronomy, organized by HarvestPlus and its partners. In addition, millions benefitted from the training sessions that were disseminated through digital tools. Women-owned enterprises, supported by HarvestPlus, played a crucial role in providing nutritious foods to the rural communities. For example:

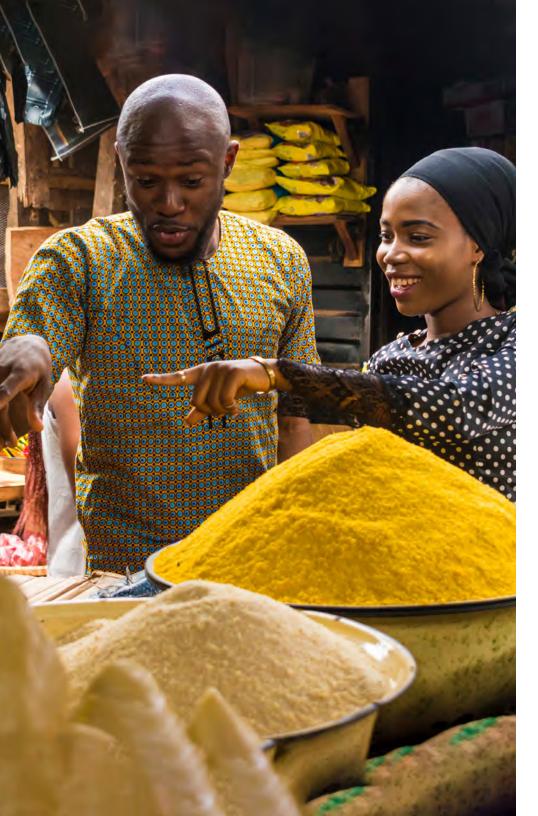
A new project, "Expanding Nutrients in Food System" commenced with the support of the Government of Canada. The project will provide access to biofortified crops to over 11 million vulnerable women, men, and children in food insecure regions across Bangladesh, India, Pakistan, Uganda, and Zimbabwe, and will improve their nutrition security and livelihoods, building healthier futures. Read more <a href="https://example.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/here.com/

Technical assistance by HarvestPlus to the Government of Democratic Republic of Congo is promoting respect among genders, gender equality, and social balance—a commitment to a global vision to combat gender-based violence. Read more here.

In Faisalabad, Pakistan, HarvestPlus established a supply chain to deliver nutritious zinc wheat flour to rural women who often have inequitable access to nutritious foods. Read more here.

The Government of India's Deendayal Antyodaya program, the National Rural Livelihoods Mission and HarvestPlus signed an MoU to strengthen efforts against malnutrition by empowering women to build nutritious, and sustainable agricultural food systems. Read more here.





Stimulating Demand of Biofortified Crops Thorough Food Businesses

Farming families who grow their own crops and cook traditional recipes, such as *chapattis* and bean dishes, were the first to see the benefits of biofortified crops. Now, nutrient enriched grains are entering food systems.

Stimulating increased production of nutrient enriched crops by generating demand from food processors has been a key component of the HarvestPlus delivery model. As a result of our partnerships with food business and processors across Asia and Africa, commercially available processed foods prepared from biofortified crops are increasing in retail outlets.

HarvestPlus builds the capacity of food businesses in technology, innovation, food safety, labelling, marketing, and promotion. For example, in Nigeria in 2023, over 50 small and medium enterprises, focusing on women led enterprises, were trained to drive sustainable growth of nutrient enriched food production. This activity has the triple benefits of providing markets for smallholders, stimulating local economies, and improving the nutrient quality of processed foods. Food businesses gain financial benefits and consumers have access to more affordable nutritious, convenient and tasty foods in the marketplace. In addition, economic analysis has shown that investments in food processing stimulate job creation and boost local, sustainable food production and livelihoods.

Advancing Research in Nutrition

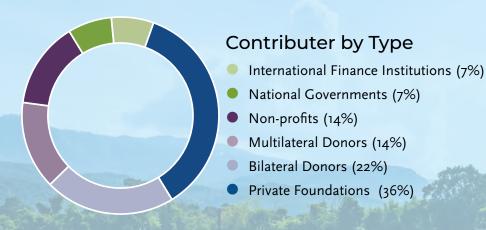
In 2023, HarvestPlus continued advancing nutrition research for evidence-informed programming and policy reforms. For example, research conducted in Bangladesh found 'miniket' rice—a popular way to process heavily milled rice—contains up to 70 percent less zinc than common rice varieties that are less heavily polished during processing. The government of Bangladesh has since banned the sale of miniket rice, as a result of evidence led advocacy efforts, demonstrating how research based evidence successfully drive policy changes that improve the overall quality of foods.

A <u>study</u> in the rural highlands of Peru showed that potatoes biofortified with iron could provide 27-50 percent of the population's daily requirement for iron, compared to common commercial varieties that provide only 10-20 percent. Anemia is common among Peruvian women and children, who often eat meals containing only potatoes—making it an ideal staple food to enrich with iron.

A growing <u>evidence shows</u> zinc deficiency plays a key role in the emergent global burden of diabetes and cardiovascular disease, but governments and scientists lack a reliable way to measure how the body responds to consuming more zinc from food. Recent studies have discovered novel tools that show promise for measuring the efficacy of zinc biofortified crops and other food-based nutrition interventions.



2023 Financials



2023 Donors to HarvestPlus

HarvestPlus thanks our funding partners for supporting our mission to rapidly scale biofortification and help to sustainably address hidden hunger.

AGRA

Asian Development Bank

The Bill & Melinda Gates Foundation

Food and Agriculture Organization of the United Nations

UK Foreign, Commonwealth & Development Office

The Government of Canada

The Government of the Democratic Republic of the Congo

Happel Foundation

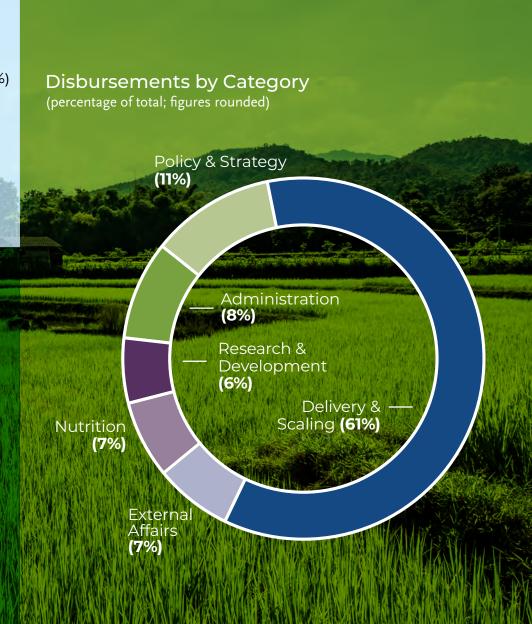
JBJ Foundation

CGIAR

United States Agency for International Development/ US Feed the Future Initiative

The Waterloo Foundation

World Vision



Biofortified Crops



IRON BEAN

For Nutrition: Provides up to 80% of daily iron needs For Farmers: High yielding, virus resistant, heat and drought tolerant • CGIAR Partner: The Alliance of Bioversity International and CIAT



IRON PEARL MILLET

For Nutrition: Provides up to 80% of daily iron needs For Farmers: High yielding, mildew resistant, drought tolerant • CGIAR Partner: ICRISAT



VITAMIN A ORANGE SWEET POTATO

For Nutrition: Provides up to 100% of daily vitamin A needs • For Farmers: High yielding, virus resistant, drought tolerant • CGIAR Partner: CIP



VITAMIN A CASSAVA

For Nutrition: Provides up to 100% of daily vitamin A needs • For Farmers: High yielding, virus resistant • CGIAR Partner: IITA and Bioversity/CIAT



VITAMIN A MAIZE

For Nutrition: Provides up to 50% of daily vitamin A needs • For Farmers: High yielding, disease and virus resistant, drought tolerant CGIAR Partner: CIMMYT and IITA



ZINC WHEAT

For Nutrition: Provides up to 50% of daily zinc needs • For Farmers: High yielding, disease resistant • CGIAR Partner: CIMMYT



ZINC RICE

For Nutrition: Provides up to 40% of daily zinc needs For Farmers: High yielding, disease and pest resistant CGIAR Partner: IRRI and Bioversity/CIAT



ZINC MAIZE

For Nutrition: Provides up to 70% of daily zinc needs For Farmers: High yielding, virus resistant CGIAR Partner: CIMMYT and IITA



HarvestPlus



INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE



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