Dear Friends,

2016 was a truly impactful year for biofortification. Thanks to the extraordinary efforts of our partners, we reached more than 25 million people with nutritious biofortified crops. Our founder and ambassador-at-large Howarth "Howdy" Bouis won the World Food Prize for his pioneering work in biofortification. Peer-reviewed studies continued to validate the nutritional and health impact of biofortified crops. And accolades from influential actors solidified the growing momentum behind our program, including TIME magazine's listing of vitamin A-enriched orange sweet potato as one of the 25 best inventions of the year.

Since joining this visionary and dynamic team as CEO, I have been constantly amazed and inspired by the energies and passions of those involved. From Bangladesh to Zambia, our staff and partners are driving real impact by working innovatively and industriously to deliver immeasurable health benefits to rural households who rely on staple crops for their daily nutrition.

Last year’s successes strengthen our resolve to reach a billion people with biofortified foods by 2030 as part of our contribution to achieve Zero Hunger. Many challenges lie ahead, but our achievements to date and a new strategic plan give me confidence that we can take biofortification to scale, ensuring that hundreds of millions of people can benefit from this simple but vital technology.

We cannot do this alone. I am particularly grateful to our donors and partners for their unwavering faith in our mission to enrich the world through better crops and nutrition. Together, we can end the global scourge of hidden hunger.

Bev Postma
CEO, HarvestPlus

Our work contributes to the following Sustainable Development Goals.

HarvestPlus is developing and promoting biofortified staple crops to improve human health and nutrition, and providing global leadership on biofortification evidence and technology.

Hidden Hunger

More than two billion people in the world—roughly one person in three—do not get enough essential vitamins and minerals, such as vitamin A, zinc, and iron, in their daily diets. Their condition is known as "hidden hunger" because those suffering from this type of undernutrition often appear healthy, but are actually more vulnerable to illness and infections. The impact of vitamin and mineral deficiencies is as follows:

**Iron Deficiency**
- Impairs mental development and learning capacity
- Increases weakness and fatigue
- May increase risk of women dying in childbirth

**Vitamin A Deficiency**
- Impairs growth
- Causes eye damage leading to blindness
- Increases risk of infection such as diarrheal disease

**Zinc Deficiency**
- Contributes to stunting
- Lowers immunity
- Increases risk of diarrheal disease and respiratory infection

Biofortification

Biofortification is the process of increasing the density of vitamins and minerals in a crop, through plant breeding or agronomic practices, so that when consumed regularly will generate measurable improvement in nutritional status.
We work with... 

260,000+ households reached with 
455,000+ households now benefiting 

IRON BEANS 

...more than 440 partners from the public and private sectors to develop and deliver biofortified crops, educate farmers and consumers on the benefits of these foods, and build inclusive, sustainable markets.
Our impact is underpinned by...

- The continuous work of our crop development specialists and CGIAR partners enabled governments to release 30+ NEW varieties of crops.

- Breakthrough findings on zinc biomarkers showed that a modest increase in dietary zinc, such as provided by biofortified crops like iron bean varieties, reduces DNA wear and tear and positively impacts chemical reactions in cells.

- Results of an efficacy trial in Rwanda revealed that daily consumption of iron beans helped to prevent and reverse iron deficiency among university women within four-and-a-half months. Further analysis showed significant cognitive performance improvements among the same women.

- An efficacy study in rural Zambia revealed that consumption of vitamin A maize resulted in improved night vision among school-aged children within six months.

- An independent assessment of the evidence on biofortification’s effectiveness resulted in a special issue on biofortification in the venerable ANNALS of THE NEW YORK ACADEMY OF SCIENCES.

- An impact assessment in Rwanda confirmed that farmers are willing to grow iron bean varieties and that adopters increased the proportion of their bean-growing land area to iron bean varieties over time. Iron beans constituted up to 12% of national bean output among smallholder bean farmers, and growers used up to 80% of their iron bean harvests for home consumption.

- The Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSU) agreed to re-establish the electronic Working Group (eWG) led by Zimbabwe and South Africa to further develop the proposed draft definition of biofortification.

- We collaborated with more than 440 partners to develop, deliver, and promote biofortified crops.

...a rigorous evidence-based approach and the world-class expertise of our researchers and specialists. We bank on the knowledge and skills of our crop development, nutrition, impact, advocacy, marketing, and communications experts.

An independent assessment of the evidence on biofortification's effectiveness resulted in a special issue on biofortification in the venerable ANNALS of THE NEW YORK ACADEMY OF SCIENCES.

We launched our bold, colorful, and dynamic new website containing a wealth of resources available free of charge.

The global independent network of health experts, announced the protocol for reviewing the evidence on biofortification.

The Nutrition Revolution Starts Here.

SELECTED WORKING PAPERS

- An Assessment of the Vitamin A Maize Seed Delivery Efforts to Date: Agro-dealer Sales and Farmer Production in Zambia
- An impact assessment in Rwanda confirmed that farmers are willing to grow iron bean varieties and that adopters increased the proportion of their bean-growing land area to iron bean varieties over time. Iron beans constituted up to 12% of national bean output among smallholder bean farmers, and growers used up to 80% of their iron bean harvests for home consumption.
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www.harvestplus.org
**NEWS & EVENTS**

In 2016, we registered nearly 400 hits in the media, including in the most popular and influential news outlets globally. Our experts showcased biofortification at more than 30 major conferences and events.

![Image of media outlets]

**FINANCIAL SUMMARY**

<table>
<thead>
<tr>
<th>Category</th>
<th>Disbursements (In thousand US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CROP</td>
<td>12,544</td>
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<tr>
<td>DEVELPMENT</td>
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<tr>
<td>NUTRITION</td>
<td>2,658</td>
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<tr>
<td>IMPACT &amp; POLICY ANALYSIS</td>
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<td>DELIVERY</td>
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<tr>
<td>STRATEGIC ALLIANCES &amp; COMMUNICATIONS</td>
<td>9%</td>
</tr>
<tr>
<td>ADMINISTRATION</td>
<td>3,365</td>
</tr>
<tr>
<td>2016 HarvestPlus Disbursements by Category</td>
<td>(In thousand US dollars)</td>
</tr>
</tbody>
</table>

**2016 Donor Contributions**

- Canadian Department of Foreign Affairs, Trade and Development (DFATD)
- Zinc Project Group
- United States Agency for International Development (USAID)
- Syngenta Foundation
- A4NH
- Bill & Melinda Gates Foundation
- German Federal Ministry for Economic Cooperation and Development (BMZ) - GIZ
- UK Department for International Development (DFID)
GOVERNANCE

HarvestPlus is a joint venture between the International Center for Tropical Agriculture (CIAT) and International Food Policy Research Institute (IFPRI). The Boards of Trustees of CIAT and IFPRI have delegated the responsibility for oversight of HarvestPlus to a Program Advisory Committee (PAC), which acts in effect as a Board of Trustees for HarvestPlus:

PETER MCPHERSON (PAC Chair)
President, Association of Public and Land-grant Universities (APLU), United States

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We support countries globally to test and release biofortified nutritious crops so that farmers and consumers can enjoy the benefits of these crops.

BEANS
Provide: Iron
Other Benefits: High yielding, virus resistant, heat and drought tolerant
Countries: Bolivia, Brazil, Colombia, Democratic Republic of Congo, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Rwanda, Uganda, Zimbabwe

CASSAVA
Provides: Vitamin A
Other Benefits: High yielding, virus resistant
Countries: Brazil, Colombia, Democratic Republic of Congo, Guatemala, Haiti, Nigeria, Panama

MAIZE
Provides: Vitamin A
Other Benefits: High yielding, disease and virus resistant, drought tolerant
Countries: Brazil, Colombia, Haiti, Mexico, Nigeria, Panama, Zambia, Zimbabwe

PEARL MILLET
Provides: Zinc
Other Benefits: High yielding, mildew resistant, drought tolerant
Country: India

ORANGE SWEET POTATO
Provides: Vitamin A
Other Benefits: High yielding, virus resistant, drought tolerant
Countries: Brazil, Guatemala, Haiti, Nicaragua, Panama, Uganda

RICE
Provides: Zinc
Other Benefits: High yielding, disease and pest resistant
Countries: Bolivia, Brazil, Bangladesh, Colombia, Guatemala, Haiti, India, Nicaragua, Panama

WHEAT
Provides: Zinc
Other Benefits: High yielding, disease resistant
Countries: Bolivia, Brazil, India, Pakistan

CONGRATULATIONS TO THE BIOFORTIFICATION CHAMPIONS
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 is part of the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH). CGIAR is a global agriculture research partnership for a food secure future. Its science is carried out by its 15 research centers in collaboration with hundreds of partner organizations. The HarvestPlus program is coordinated by two of these centers, the International Center for Tropical Agriculture (CIAT) and the International Food Policy Research Institute (IFPRI).

HarvestPlus’ principal donors are the UK Government; the Bill & Melinda Gates Foundation; the US Government’s Feed the Future initiative; the European Commission; and donors to the CGIAR Research Program on Agriculture for Nutrition and Health.