HarvestPlus improves nutrition and public health in India by promoting pearl millet that provides more iron and wheat that provides more zinc in the diet. We work with more than 70 partners drawn from government, business, and civil society.

**Better Crops for Better Nutrition**

We use a process called biofortification to conventionally breed staple food crops that are richer in essential minerals and vitamins and can be grown by rural communities that are often missed by other interventions, such as supplementation and food fortification. Our food-based approach relies on familiar staple foods that people already eat regularly and that can be part of other efforts to improve nutrition, such as dietary diversification.

### The Costs of Iron & Zinc Deficiencies

- Iron deficiency impairs mental development and learning capacity, increases weakness and fatigue, and may increase the risk of women dying during childbirth.
- 70% of Indian children under 5 are estimated to be iron deficient (DHS).
- Zinc deficiency causes stunting, lowers immunity, and increases risk of diarrheal disease and respiratory infections.
- 48% of Indian children under 5 are estimated to be zinc deficient (WHO).*
- Annually, India loses over $12 billion in GDP to vitamin and mineral deficiencies (World Bank).

### Crops for India

**Iron Pearl Millet**

*India ranks number 12 out of 55 countries suitable for investing in iron pearl millet.*

**Nutritional Benefits:** Provides up to 80% of daily iron needs

**Farmer Benefits:** High yielding, mildew resistant, short duration, drought tolerant

**Biofortified Varieties:** ICTP 8203-Fe-10-2 (Dhanashakti), ICMH 1201 (Shakti-1201)

**Zinc Wheat**

*India ranks number 9 out of 73 countries suitable for investing in zinc wheat.*

**Nutritional Benefits:** Provides up to 50% of daily zinc needs

**Farmer Benefits:** High yielding, adapted to the target area of eastern gangetic plains, disease resistant

**Biofortified Varieties:** BHU-3, BHU-6 (Chitra)

*Based on stunting as a proxy for risk of zinc deficiency*
On the Ground
HarvestPlus and its partners work in five states of India to promote the availability, adoption, and consumption of biofortified pearl millet and wheat. The goal is that more than 1 million Indian farming households will be growing these crops by 2018.

How We Work
HarvestPlus supports the National Agricultural Research System in India to breed, test, and release biofortified pearl millet and wheat developed through our partnership with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the International Maize and Wheat Improvement Center (CIMMYT). Public and private seed companies play a critical role in commercializing seed for distribution to farmers. We support these companies with market research, nutrition studies, branding, and promotional strategies. Our partnerships also train farmers, retailers, and distributors on the benefits of biofortified pearl millet and wheat. Public awareness campaigns leverage the power of the media and national public health experts to highlight micronutrient deficiencies and promote adoption of nutritious crops. Our advocacy seeks to strengthen central and state-level ownership of biofortification through effective integration into nutrition and agricultural policies.

“Partnering with HarvestPlus gave us an opportunity to use our experience and distribution channels to serve our farmers by providing them with high-zinc wheat variety.”

~ Sandeep Goel
Managing Director, Astha Beej Co. Pvt. Ltd.