



HarvestPlus improves nutrition and public health in Bangladesh by promoting rice that provides more zinc in the diet. We work with almost 40 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 Zinc Deficiency

- Zinc deficiency causes stunting, lowers immunity, and increases risk of diarrheal disease and respiratory infections.
- 41% of children under 5 in Bangladesh are estimated to be zinc deficient (*DHS*).*
- Annually, Bangladesh loses over US\$700 million in GDP to mineral and vitamin deficiencies (*World Bank*).

Crops for Bangladesh



Zinc Rice

Rice is the primary staple food in Bangladesh. Bangladesh ranks number 2 out of 90 countries suitable for investing in zinc rice.

Nutritional Benefits: Provides up to 60% of daily zinc needs

Farmer Benefits: High yielding, disease and pest resistant

Biofortified Varieties: BRR1 dhan62, BRR1 dhan72 for *Aman* (monsoon) season; BRR1 dhan64 for *Boro* (dry) season

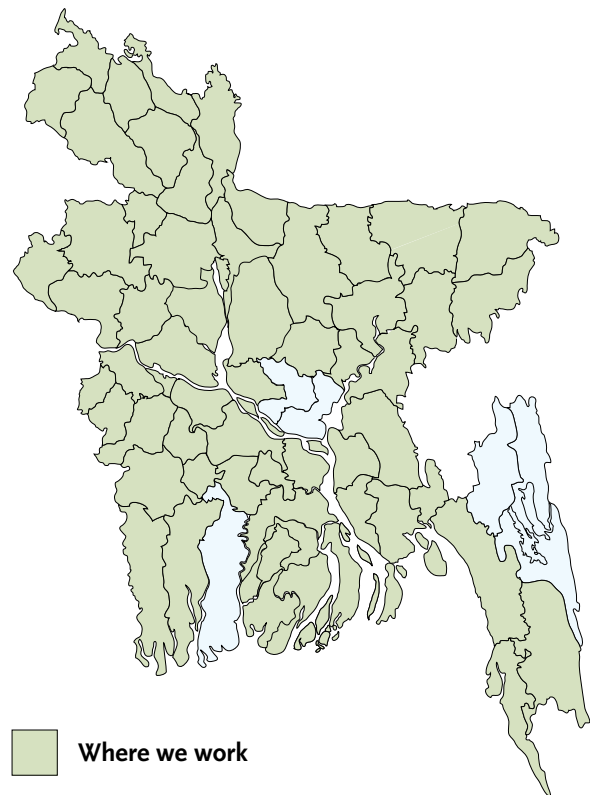
*Based on stunting as a proxy for risk of zinc deficiency

On the Ground

HarvestPlus and its partners work in 58 districts across Bangladesh to promote the availability, adoption, and consumption of zinc rice. The goal is that 1.4 million Bangladeshi farming households will be growing zinc rice by 2018.

How We Work

HarvestPlus works with the Bangladesh Rice Research Institute (BRRI) and the International Rice Research Institute (IRRI) to develop zinc rice. To date, three zinc rice varieties have been released, two of which are already available to farmers to plant during either the *Aman* or *Boro* seasons. The third variety, BRRI dhan72, will be disseminated to farmers for the *Aman* season starting in 2016. We work with public, private sector, and non-governmental partners to multiply and distribute seed, educate farmers on the benefits of zinc rice, and promote wider adoption and consumption of the crop through public awareness campaigns. We also provide training and technical support to our partners, including the Government's crop breeding and agricultural extension programs.



"I am cultivating zinc rice because it has extra zinc, which actually helps in a child's development."

~ Fazlur Rahman
Farmer from Sunamganj District

Partners

CGIAR: International Rice Research Institute (IRRI) **Local:** Agricultural Advisory Society (AAS) • Amra Kaj Kori (AKK) • Apex • Association for Integrated Human Development (AIHD) • AVA Development Society (AVA) • Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU) • Bangladesh Agricultural University (BAU) • Bangladesh Human Rights and Research Development Society (BHRRDS) • Bangladesh Institute of Nuclear Agriculture (BINA) • Bangladesh Rice Research Institute (BRRI) • Chetona • Christian Commission for Development in Bangladesh (CCDB) • Concern on National Problems (CONP) • Department of Agricultural Extension (DAE) • Friends in Village Development Bangladesh (FIVDB) • Green the Environment (GTE) • Integrated Social Welfare Association (ISWA) • Natun Zibon Rochi (NAZIR) • Patuakhali Development Organization (PDO) • People's Development Institute (PDI) • Prokash Gono Unnayan Kendro (PGUK) • RDRS Bangladesh • Shariatpur Development Society (SDS) • Shawdesh Unnayan Kendra (SUK) • Shushilan • Small & Medium Seed Producing Association (SMSPA) • Society Development Committee (SDC) • Socio Economic Health Education Organization (SEHEO) • South West Seed Producers Association of Bangladesh (SWSPAB) • Thengamara Mohila Saabuj Sangha (TMSS) • Unnayan Dhara (UD) • Young Power in Social Action (YPSA) • Voluntary Rural Development Society (VRDS) • ZHUMKA Bangladesh (ZHUMKA) **Other:** Commonwealth Scientific and Industrial Research Organization • Flinders University • Harvard School of Public Health • University of Adelaide

Contact

Khairul Bashar, HarvestPlus Country Manager-Bangladesh • C/o IRRI Bangladesh Office • House 9 Road 2/2 • Chairmanbari Banani • Dhaka 1213 • +880 2 9851680 • k.bashar@cgiar.org • www.HarvestPlus.org

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).



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PROGRAM ON
Agriculture for
Nutrition
and Health

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