



HarvestPlus improves nutrition and public health in Nigeria by promoting **cassava** that provides more **vitamin A** 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 vitamins and minerals 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 Vitamin A Deficiency

- Vitamin A deficiency lowers immunity, impairs vision, and may lead to blindness and even death.
- 30% of Nigerian children under 5 are estimated to be vitamin A deficient (*WHO*).
- Annually, Nigeria loses over US\$1.5 billion in GDP to vitamin and mineral deficiencies (*World Bank*).

### Crops for Nigeria



#### **Vitamin A Cassava**

Cassava is one of the most widely consumed food staples in Nigeria. Nigeria ranks number 17 out of 78 countries suitable for investing in vitamin A cassava.

**Nutritional Benefits:** Provides up to 40% of daily vitamin A needs

**Farmer Benefits:** High yielding, virus resistant

**Biofortified Varieties:** (2014) NR 07/0220 – UMUCASS 44, TMS 07/0593 – UMUCASS 45, and TMS 07/539 – UMUCASS 46 (2011) TMS 01/1368 – UMUCASS 36, TMS 01/1412 – UMUCASS 37, and TMS 01/1371 – UMUCASS 38

## On the Ground

HarvestPlus and its partners work in 22 states of Nigeria to promote the availability, adoption, and consumption of vitamin A cassava and maize. The goal is that more than 1.6 million Nigerian farming households will be growing these biofortified crops by 2018.



## How We Work

HarvestPlus supports the National Root Crops Research Institute (NRCRI) to breed, test, and release vitamin A cassava developed through our partnership with the International Institute of Tropical Agriculture (IITA). We work with public and private sector partners to multiply vitamin A cassava stems and distribute to farmers. Our network of extension agents and rural facilitators receive training in best agronomic practices, which they pass along to farmers at the household level. Creative public awareness campaigns leverage the power of mass media, including of Nollywood, in educating Nigerians on micronutrient deficiencies and the benefits of vitamin A cassava. We are also creating and strengthening demand by supporting commercial processing of vitamin A cassava into popularly consumed products such as *gari* and *fufu* that are marketed nationwide. Innovative strategies to promote adoption and consumption include model one-stop shops where consumers can buy vitamin A cassava stems, tubers, and ready-to-eat products such as pies, cakes, and *fufu*. Our advocacy seeks to strengthen national ownership of biofortification through effective integration into national nutrition and agricultural policies.

*“Biofortification must be rigorously supported within the broader context of promoting a diversified and healthy food base for improved nutrition.”*

~ Akinwumi Adesina  
Former Minister of Agriculture & Rural Development

## Partners

**CGIAR:** International Food Policy Research Institute (IFPRI) • International Institute of Tropical Agriculture (IITA) • International Maize and Wheat Improvement Center (CIMMYT) • **Local:** Agricultural Development Programmes (ADP) • Akwa Ibom State Agricultural Development Programme (AKADEP) • Akwa Ibom State University • Benue State Agricultural Development Programme (BNARDA) • Cassava Growers Association of Nigeria • Commission (JDPC) - Ilorin • Damisa Gurus • Development Dynamics • Dominican Centre for Training and Development • ENVOY Agricultural Services • Federal College of Agriculture – Akure • Federal Ministries of: Agriculture, Education, and Health • Forward Africa • Human Empowerment and Development Project (HEMADEP) • Imo State Agricultural Development Programme (IMOADP) • Institute of Agricultural Research & Training (IAR&T) • Justice Development and Peace • Justice Development and Peace Commission (JDPC) • Justice Development and Peace Commission (JDPC) - Ibadan • Justice Development and Peace Commission (JDPC) – Oyo • Justice Development and Peace Commission (JDPC) – Uyo • National Orientation Agency • National Root Crops Research Institute (NRCRI) • National Television Authority (NTA) • Niji Farms Ltd. • Nollywood – Smile Africa Network • Obafemi Awolowo University • Oyo State Agricultural Development Programme (OYSADEP) • Radio Nigeria • Redeem Aids Programme Action Committee (RAPAC) • Senator Adeyemo Women Empowerment Cooperative (SAWEC) • University of Uyo • Women in Agriculture • **Other:** Brazilian Agricultural Research Corporation (Embrapa) • Delhi School of Economics • Greenwich University • SEED Solutions, SEED Infotech Ltd.

## Contact

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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

LED BY 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.*