The Role of Biofortification in Reducing Hidden Hunger

Hidden Hunger affects approximately TWO BILLION PEOPLE OR ONE IN THREE, GLOBALLY.

IN WOMEN AND CHILDREN HIDDEN HUNGER CAUSES

20% of maternal deaths  
45% of all child deaths  
110,000 Deaths during childbirth each year. Source: WFP

Effects of Micronutrient Deficiency
- Cognitive Impairment
- Weak Immune System
- Maternal and Infant Mortality
- Stunted Growth
- Vision Problems
- Fatigue, Weakness
- Reproductive Problems

Economic Impact
- Annual losses from micronutrient malnutrition. Source: World Bank
- Tanzania $289M
- Bangladesh $700M
- Zambia $186M
- Uganda $143M
- DRC $1100M
- India $12B
- Pakistan $3B
- Nigeria $1.5B
- Rwanda $50M

Malnourished children lag four years behind peers in educational development.

Why invest in Biofortification?
An Intervention for “Hidden Hunger”

- Focus on staple crops that rural poor already cultivate and consume
- Sustainable and cost-effective

How is biofortification done?
- Selective Conventional Breeding: Variety with high micronutrient value
- Micronutrient Interventions: Dietary Diversification, Food Fortification, Biofortification
- Sustainable and cost-effective
- Multiple generations of breeding produce new biofortified variety with best traits of parent varieties

Major Biofortified Crops in Africa
- Iron & Zinc Beans
- Vitamin A Yellow Cassava
- Pro-Vitamin A Maize
- Iron Pearl Millet
- Vitamin A Orange-Fleshed SweetPotato

Return on Investment
- FOR EVERY DOLLAR INVESTED IN BIOFORTIFICATION
- UP TO US$17 OF BENEFITS
- gained (from increased productivity, reduced illness, etc.)

CALL TO ACTION
- Need for multidisciplinary and multi-organizational partnerships (Governments; development partners; international, regional and sub-regional organizations; private sector; civil society) that prioritize and invest in nutrition-sensitive agriculture and biofortification to add value and fill critical gaps.