

The Role of Biofortification in Reducing Hidden Hunger



IN WOMEN AND CHILDREN HIDDEN HUNGER CAUSES

20%
of maternal deaths
Source: WHO

45%
of all child deaths

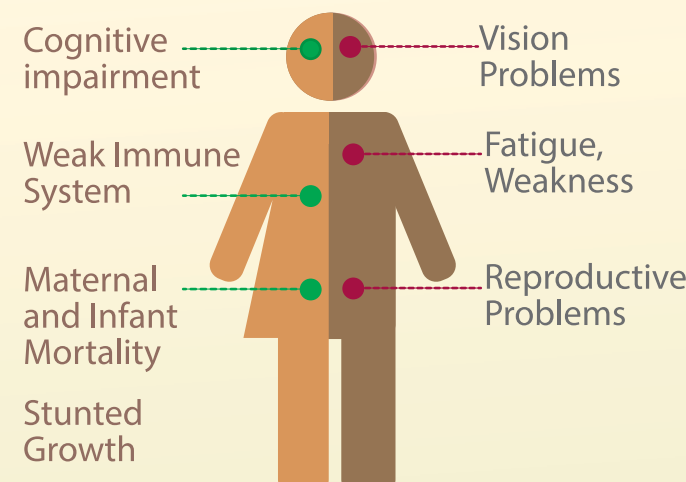


110,000
Deaths during childbirth
each year. Source: WFP

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



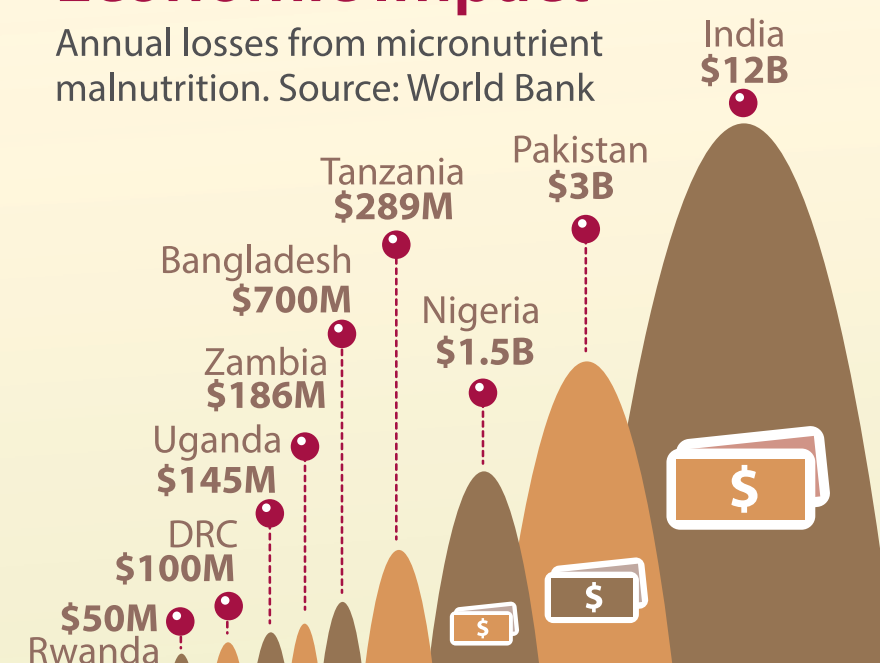
Effects of Micronutrient Deficiency



Malnourished children lag **four years** behind peers in educational

Economic Impact

Annual losses from micronutrient malnutrition. Source: World Bank



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



Multiple generations of breeding produce new biofortified variety with best traits of parent varieties

Micronutrient Interventions



Dietary Diversification
Eating a variety of nutritious foods



Food Fortification
Adding micronutrient during processing/preparation



Supplementation
Administering doses of concentrated micronutrients



Biofortification
Increasing micronutrient content of staple crops

Major Biofortified Crops in Africa

IRON & ZINC BEANS

Up to **50%** of daily requirement iron



VITAMIN A YELLOW CASSAVA
Up to **40%** of daily requirement vitamin A

PRO-VITAMIN A MAIZE

Up to **25%** of daily requirement vitamin A



IRON PEARL MILLET
Up to **80%** of daily requirement iron



VITAMIN A ORANGE-FLESHED SWEETPOTATO
Up to **100%** of daily requirement vitamin A

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.



Photo credit: Helen Keller International

