

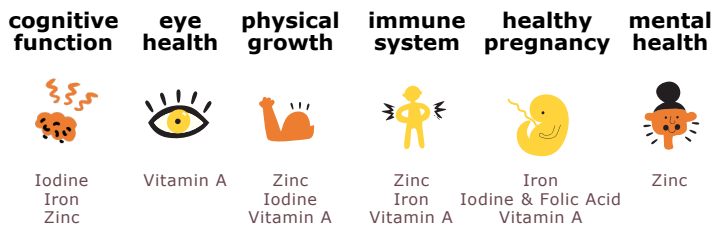
# BIOFORTIFICATION AND FORTIFICATION: PREVENTING CHRONIC MALNUTRITION



**2 BILLION PEOPLE SUFFER FROM MICRONUTRIENT DEFICIENCIES**

- **Micronutrient deficiencies** – a leading cause of intellectual disability, blindness in children, maternal death in childbirth. It affects 2 billion people and contributes to 5% loss of GDP globally.
- **Biofortification and fortification** can provide the required **micronutrients** (such as zinc, iron, vitamin A, iodine, folate).

## REQUIRED VITAMINS FOR:



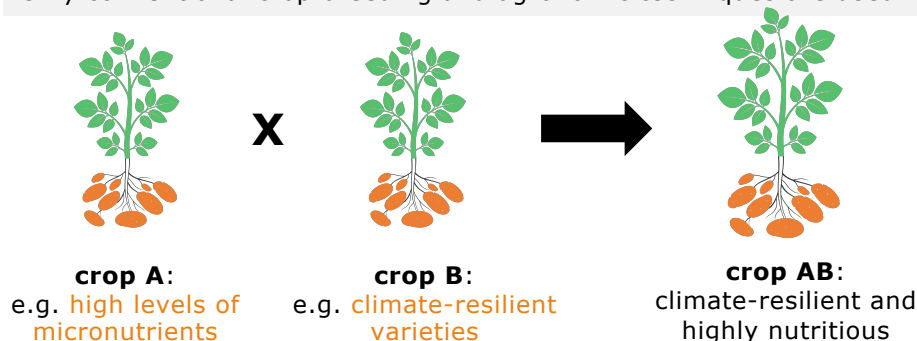
## USE CASE:

Over **1 million children** die each year due to Vitamin A and zinc deficiencies

## BIOFORTIFICATION

**Breeding** seed parents with desirable traits, e.g. drought tolerance, high yield to develop high-micronutrient biofortified child varieties.

Only conventional crop breeding and agronomic techniques are used.



- Biofortified foods help fill **daily nutrient requirements**
- **Cost-effective and sustainable:** one time investment in seeds, recurring costs are low
- **Higher yields** and ability to **adjust to climate change**

## HIGH RETURN ON INVESTMENT:

**\$1 INVESTED** IN BIOFORTIFICATION GENERATES

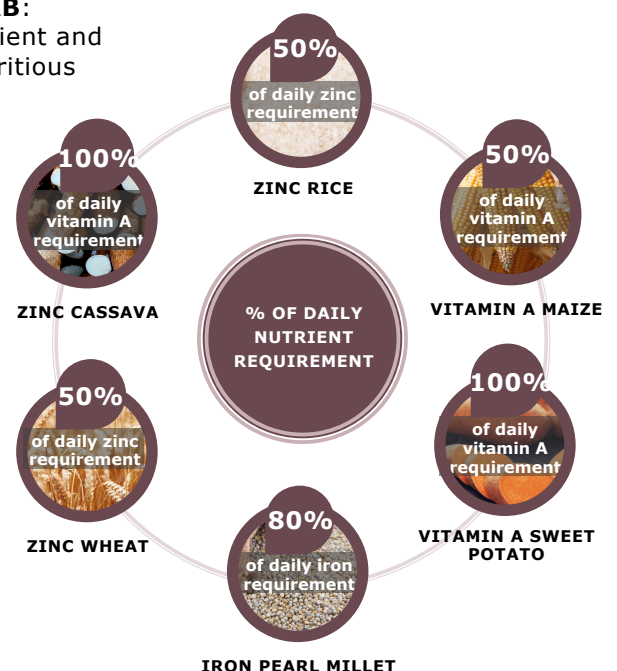
**USD \$17 IN RETURN**

from reduced illnesses, increased earnings and work productivity.

## BIOFORTIFICATION RESULTS: REDUCTION OF

**VITAMIN A DEFICIENCY** by up to **22%**

via Vitamin A sweet potato (reduction of illness, mortality).



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## FORTIFICATION

Adding micronutrients during food processing

- Large scale food fortification provides a substantial increase in nutrients (including iron, folate, vitamin A) to vulnerable populations



### ADVANTAGES OF FOOD FORTIFICATION:



easily integrated into daily life



low cost



incorporates local private sector's products

### SUCCESS STORY ON IODINE:

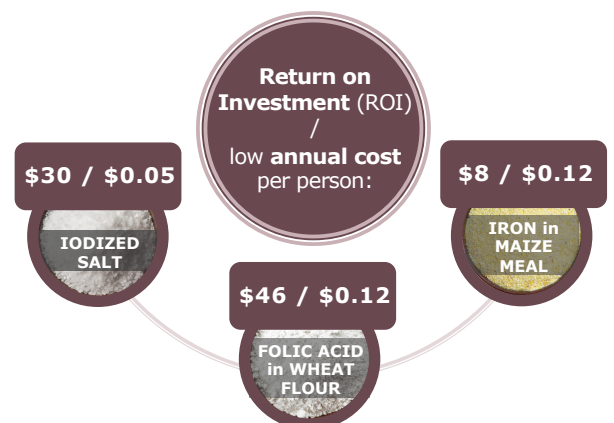
Since 1990, the proportion of households consuming iodized salt worldwide increased from less than 20% to 88% and the **number of countries with iodine deficiency (the world's leading cause of preventable mental impairment) decreased from over 110 to 20**

### HIGH RETURN ON INVESTMENT:

**\$1 INVESTED** IN FOOD FORTIFICATION GENERATES  
**USD \$27 IN RETURN**

**FORTIFICATION RESULTS:** REDUCTION OF  
**CHRONIC MALNUTRITION**

### COMMON FORTIFIED FOODS: maize meal, wheat flour, salt, rice, cooking oil



## HOW TO SOLVE TOGETHER?

We are calling private sector and social development actors to help us fund and execute **biofortification and fortification solutions** which have an incredibly high return on investment and which open doors for the young generations to thrive.

