

# CATALYSING SCALING FOR BIOFORTIFIED CROPS IN ASIA AND AFRICA

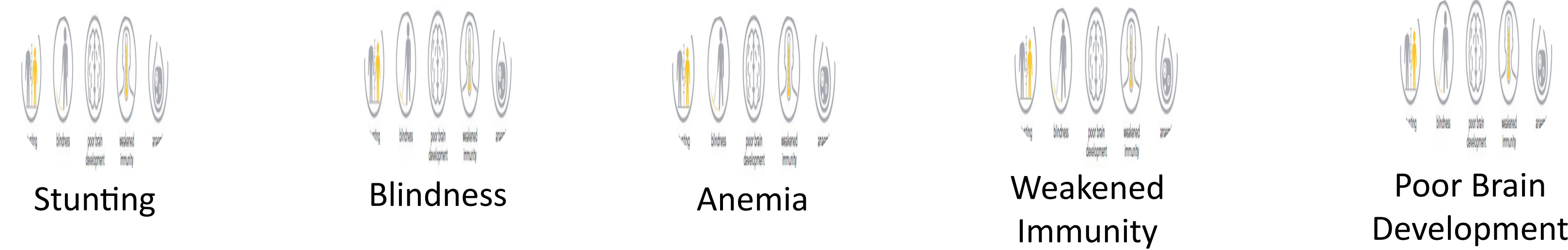
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## The Problem

**48% women are anemic and 30% children stunted in Asia**

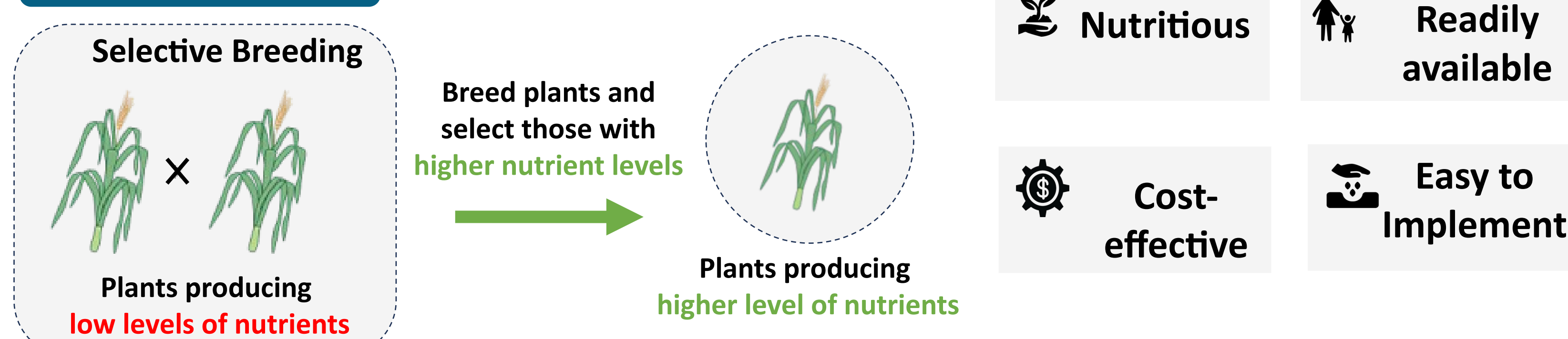
This "hidden hunger" increases their vulnerability to serious health problems, particularly in women and children, including:



Hidden hunger imposes a staggering toll on societies. Chronic child underweight and the enduring developmental consequences it brings, both physically and cognitively, are deeply concerning. Even more alarmingly, the loss of human potential due to hidden hunger is a formidable economic challenge. In Asian countries, this translates to an average annual GDP reduction of 11%.

## The Innovation: Biofortified Crops

### Biofortification



**293 Varieties of Biofortified Crops Released across 41 countries**

## Scaling Strategy

### Goals

- Improve access to inputs and markets for biofortified seeds and food products
- Strengthen demand for these nutrient-rich staple foods
- Improve the enabling environment for biofortified foods

### Target Crops and Countries

Iron	Zinc	
<b>Pearl Millet</b> Provides up to 80% of daily iron needs	<b>Wheat</b> Provides up to 50% of daily zinc needs	<b>Pakistan (Zinc Wheat)</b>
<b>Beans</b> Provides up to 80% of daily iron needs	<b>Rice</b> Provides up to 40% of daily zinc needs	<b>India (Iron Pearl Millet, Zinc Wheat)</b>
		<b>Bangladesh (Zinc Rice)</b>

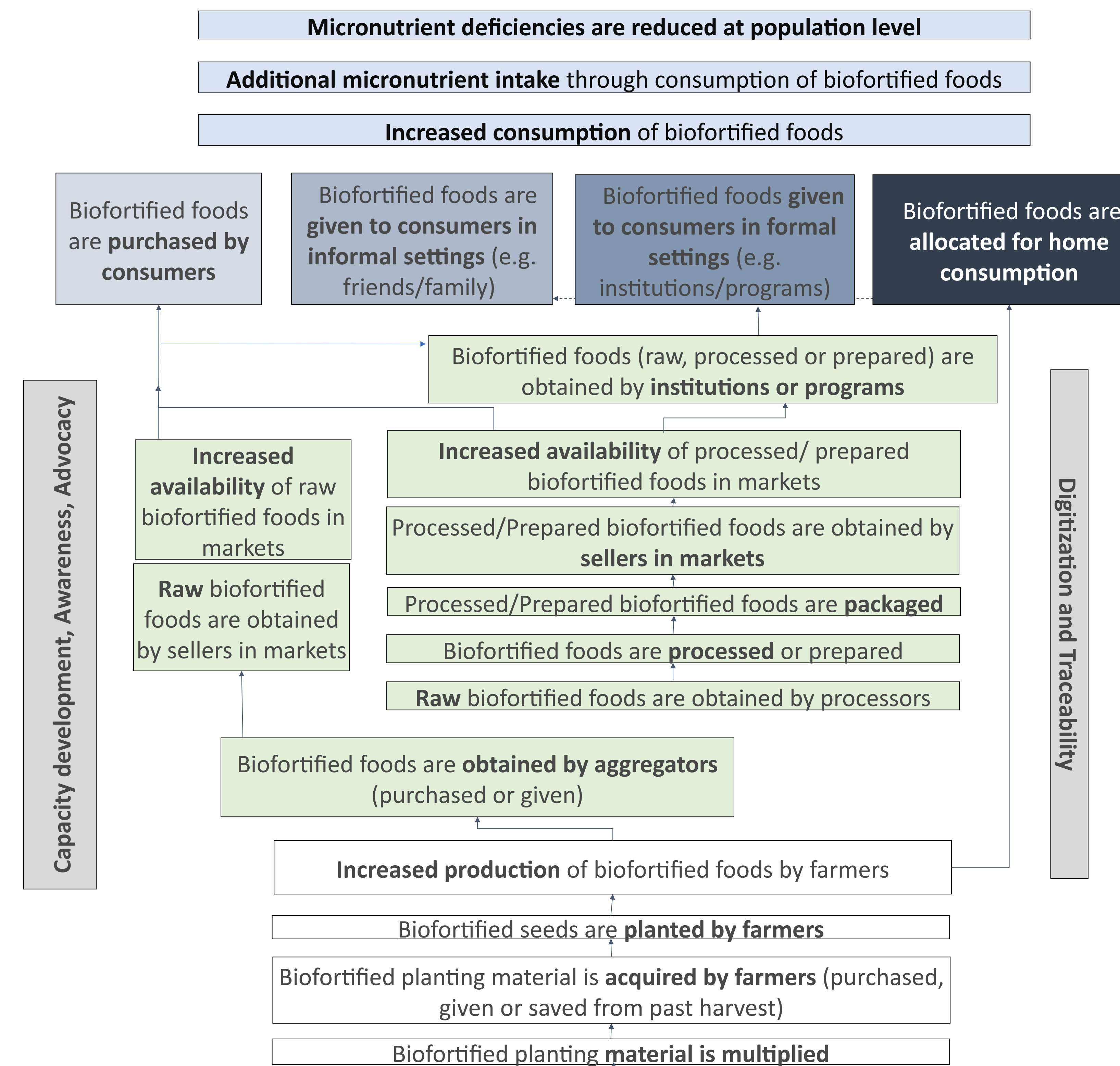
### Challenges

- Poor communication of value proposition
- Underdeveloped seed systems
- Lack of segregation of grains
- Poor harmonization of policies

### Opportunities

- Availability of competitive biofortified seed varieties
- Potential to establish partnerships to strengthen supply and demand through financial or technical support
- Presence/potential for an enabling policy environment

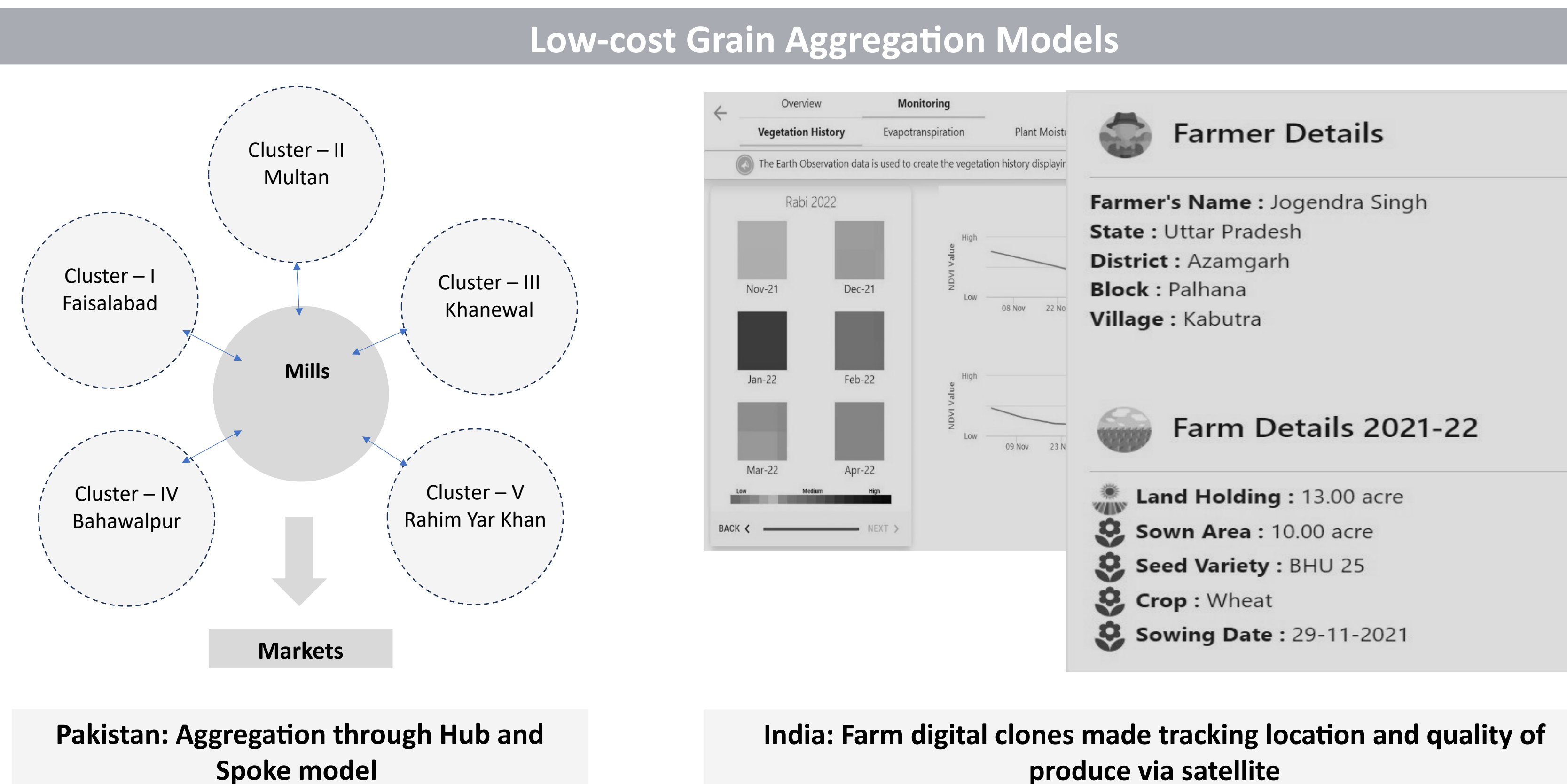
## Program Impact Pathway



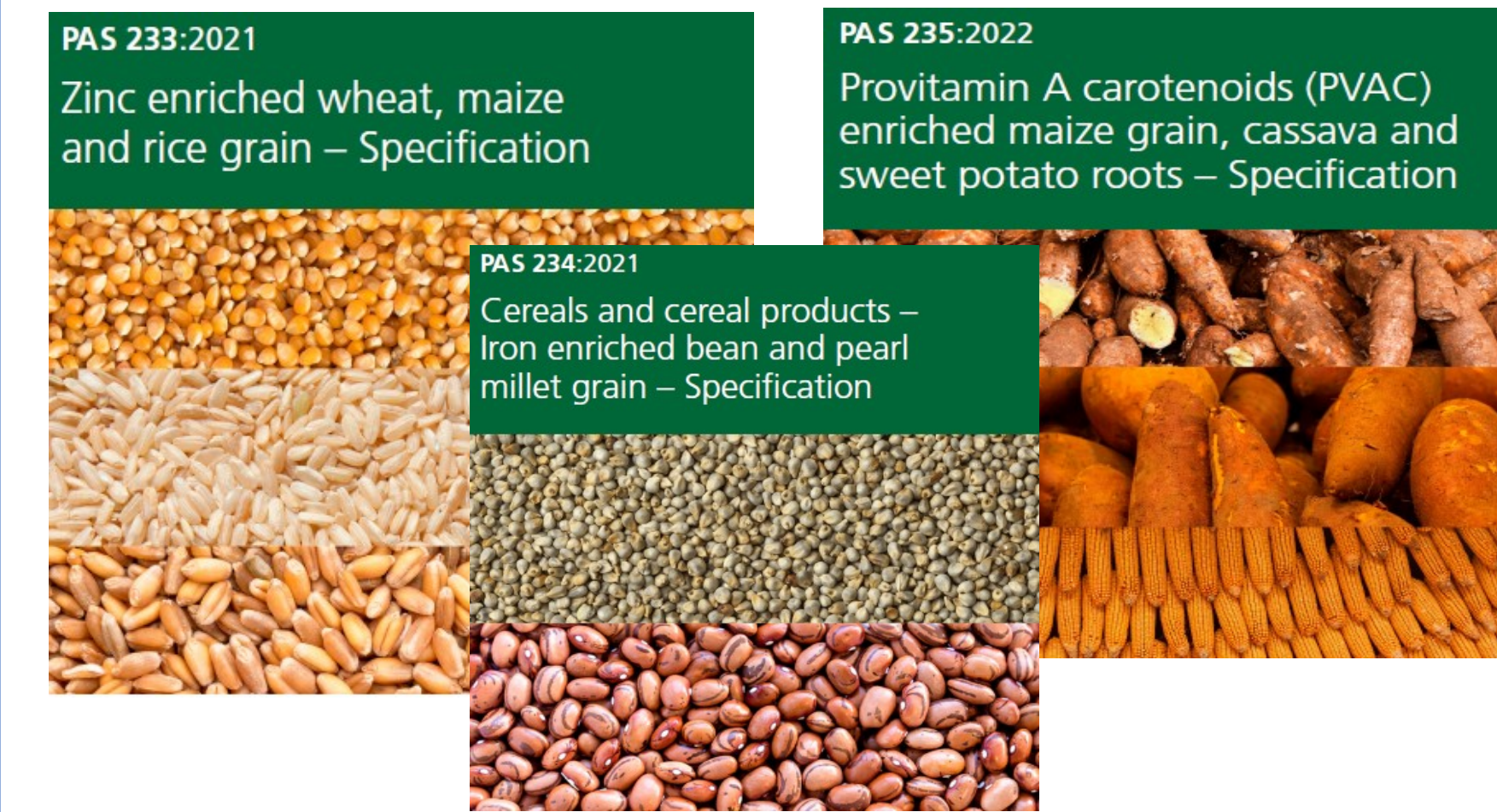
The PIP outlines four key pathways for biofortified food consumption, with the first three being commercial and with further review, pathways with the most potential for impact were identified and associated workplans were developed for each country-crop combination. A list of mapped 20 indicators were developed, aligning various nodes of the PIP to track outputs for awareness, production, supply, and consumption of biofortified foods.

## Outputs

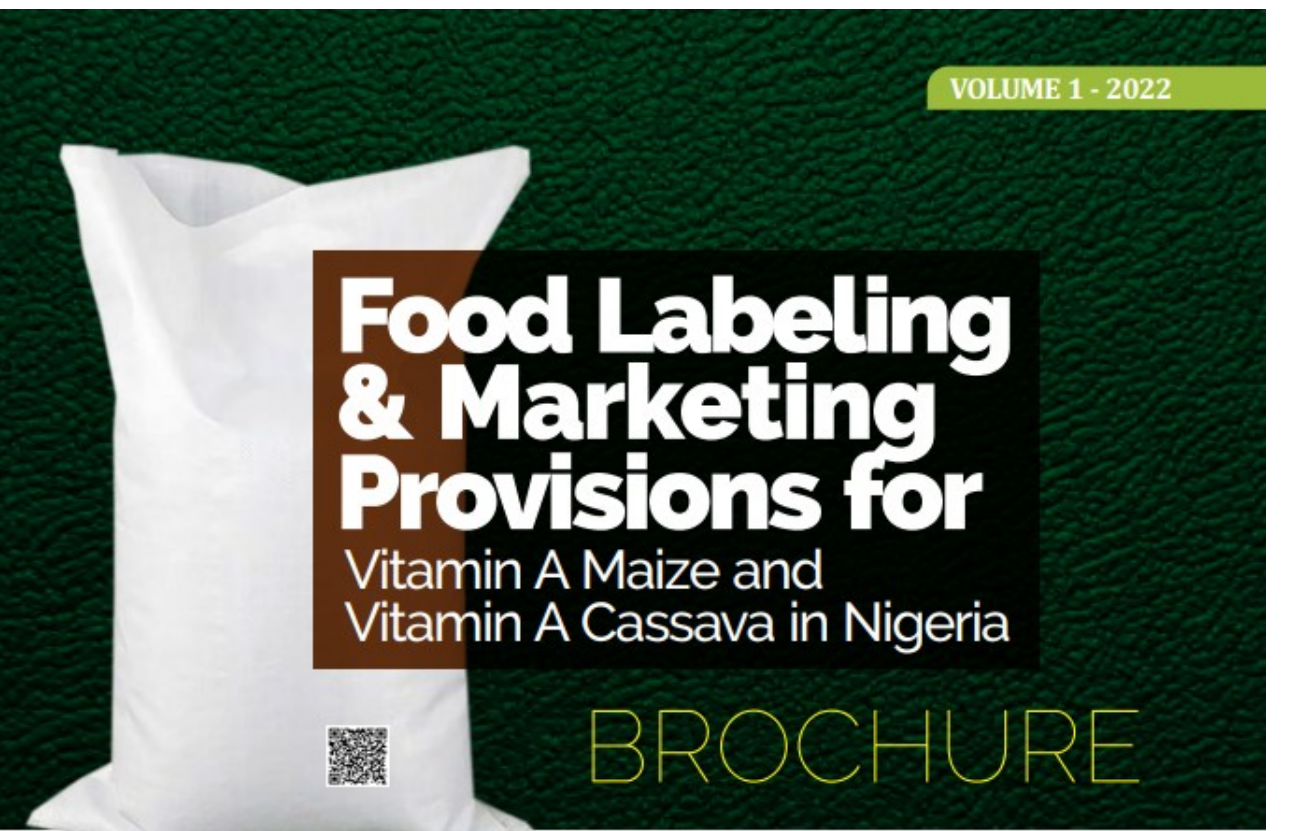
### Improved Access



Publicly Available Standard for Zinc, Iron and Vit A biofortified crops released across with British Standards Institution



Food Labeling Guidelines for Processors released in Pakistan, India



## Strengthened demand

### Farmer awareness campaigns

### Miller awareness campaigns

### Pakistan: Social Media Campaigns

Facebook: 2.3mn  
Instagram: 77k  
Twitter Impressions: 25k  
YouTube Views: 410k  
SMS Broadcast: 1.2mn

## Improved Enabling Environment

Few Examples of Policy documents including Biofortification across countries

**Bangladesh**  
8th Five Year Plan: 2020-2025, National Strategy on Prevention of Micronutrient Deficiency Bangladesh 2015-2024, Second National Plan of Action for Nutrition 2016-2025

**Pakistan**  
Pakistan National Vision 2025; National Food Security Policy

## Results

	Bangladesh, India, Pakistan
Farmers growing biofortified crops	4.6mn
People eating from on-farm	23.25mn
Quantity of Biofortified Crop harvested (MT)	20.8mn
Farmers that reported increased income	1.8mn
Value chain actors that received capacity development support	419k