Commercialization of Biofortified Crops Programme [CBC]

Expanding the reach of nutrient-enriched staples

Co-led by:

- gain
- HarvestPlus

Funding from:
Hidden hunger increases vulnerability for low and middle income countries to serious health problems particularly in women and children, including:

- Blindness
- Stunting
- Poor brain development
- Weakened immunity
- Anaemia

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Why Biofortification?

Widely implemented for the prevention of micronutrient deficiencies:

Potential advantages to biofortification as a micronutrient intervention:

• **Biofortification is targeted primarily to the rural poor** who rely heavily on locally produced staple foods as their primary source of nutrition.

• **Biofortification is sustainable.** Biofortified crops are just crops; People will forget the process, but the micronutrients would still be there.

• Once initial development and dissemination are completed, **recurring costs of maintaining production of biofortified crops** are estimated to be low.

• **Biofortification reaches the most vulnerable population** who often have restricted financial or market access to commercially processed fortified foods.

• Biofortification produces higher yields in an **environmentally friendly** way.

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The CBC Program

HarvestPlus

- Seed production
- Seed marketing & distribution
- Grain Production & aggregation
- Implementation Partners (global & country)

GAIN

- Aggregation & Forward Market Linkage
- Demand creation & awareness
- Supply chain solutions
- Implementation partners (global & country)

Advocacy

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Our goals and objectives

Expand coverage of biofortified nutrient dense foods to at least 190.6 million consumers by 2022 in Bangladesh, India, Kenya, Nigeria, Pakistan and Tanzania.

OVERALL VISION: Scale up the commercialization of biofortified foods & diet quality to tackle hidden hunger

GOAL 1
Improve access to inputs and markets for biofortified seeds and food products

GOAL 2
Strengthen demand for these nutrient-rich staple crops

GOAL 3
Improve the enabling environment for biofortified foods and food products

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Programme Countries & Crops

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Programme approach

The CBC Programme works with country partners on a **value chain approach** to creating sustainable commercial pathways for biofortification:

- Increasing participation and capacity of **existing value chain actors** of staple crops in the production & processing
- Demand creation & marketing of biofortified seeds, grains and food products

**Development program approaches**

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Biofortified planting material is multiplied. Biofortified planting material is acquired by farmers (purchased, given or saved from past harvest). Biofortified seeds are planted by farmers. Increased production of biofortified foods by farmers. Biofortified foods are obtained by aggregators (purchased or given). Biofortified foods are given to consumers in formal settings (e.g. institutions/programs). Biofortified foods (raw, processed or prepared) are obtained by institutions or programs. Processed/Prepared biofortified foods are obtained by sellers in markets. Processed/Prepared biofortified foods are packaged. Biofortified foods are processed or prepared. Raw biofortified foods are obtained by processors. Increased availability of processed/ prepared biofortified foods in markets. Increased availability of raw biofortified foods in markets. Raw biofortified foods are obtained by sellers in markets. Biofortified foods are given to consumers in informal settings (e.g. friends/family). Biofortified foods are given to consumers in formal settings (e.g. institutions/programs). Increased consumption of biofortified foods. Additional micronutrient intake through consumption of biofortified foods. Micronutrient deficiencies are reduced at population level.

Increased availability of raw biofortified foods in markets.

Processed/Prepared biofortified foods are obtained by sellers in markets.

Processed/Prepared biofortified foods are packaged.

Biofortified foods are processed or prepared.

Raw biofortified foods are obtained by processors.

Increased availability of processed/ prepared biofortified foods in markets.

Biofortified foods are given to consumers in informal settings (e.g. friends/family).

Biofortified foods are given to consumers in formal settings (e.g. institutions/programs).

Biofortified foods are obtained by aggregators (purchased or given).

Increased production of biofortified foods by farmers.

Biofortified seeds are planted by farmers.

Biofortified planting material is acquired by farmers (purchased, given or saved from past harvest).

Biofortified planting material is multiplied.

Institutions or programs.

Increased availability of processed/ prepared biofortified foods in markets.

Increased availability of raw biofortified foods in markets.

Expanded the reach of nutrient-enriched staples.
Challenges and Opportunities

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Challenges

Certain challenges need to be addressed for scale up, sustainability and long-term impact:

Demand
- Awareness
- Price

Private & Public Partnerships
- Policy
- Awareness
- Product development

Differentiation
- Appearance
- Taste

Traceability & Aggregation
- Standards
- Sporadicity
- Adulteration

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Small and Medium Business Enterprises

- While the definition varies, staff headcount and turnover/balance sheet determine an enterprise as SMEs

- Major role in global economic development:
  - Formal SMEs contribute up to 40% of national income (GDP) in emerging economies; the numbers are significantly higher when informal SMEs are included
  - Represent about 90% of businesses worldwide
  - In emerging markets, most formal jobs are generated by SMEs, which create 7 out of 10 jobs; and more than 50% of employment

- Sustainable Development Goals (SDGs) can only be achieved if countries manage to build up strong SMEs
SME Attributes

- **Innovation sits at the heart**: almost all technological processes and innovations are attributed to SMEs.
- Because of size, SMEs are much better at identifying and embracing new trends in the industry.
- Inherently, SMEs focus on creating new products or services to be successful.
- Detect market niches & adapt faster to the changing requirements.
- Obvious, but a trump card!
- Deal with customers directly, understand their needs accurately, and establish stronger bonds.
- Conceptualize and Test
- Pave the way for bigger and braver investments.

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Why SMEs and CBC is the right fit

Challenges for SMEs, especially in food/Agri sector:
- Limitation to scale-up operations & employee base
- Inadequate consumer reach & advertising exposure
- Access to skilled personnel
- Limited R&D Budgets/Infrastructure
- Access to finance

Programme Opportunities
- Product differentiation
- Technical Support
- Marketing and Exposure
- Assured supply
- Financial support
- Capacity building and skilling programmes
- Nurturing business support & relations

Collaboration
- Co-Learn
- *Review our work*: our biggest critics, and eventually our best advocates
- Validate design decisions
- Advocate: Mutual connections
- Contribute and succeed

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Resolving supply chain challenges in CBC

**Agriscope: Kenya**
Profitable seed multiplication and marketing models.

**DeHaat: India**
Aggregation, traceability and digital outreach.

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Thank You