



Commercialization of Biofortified Crops Programme [CBC]

Expanding the reach of nutrient-enriched staples



Co-led by:



Funding from:



The Context: A Global Health Crisis

The Challenge

2 billion people

Primarily in **low and middle-income countries** do not get enough essential **vitamins and minerals** (micronutrients) in their daily diets. This condition is called hidden hunger.

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



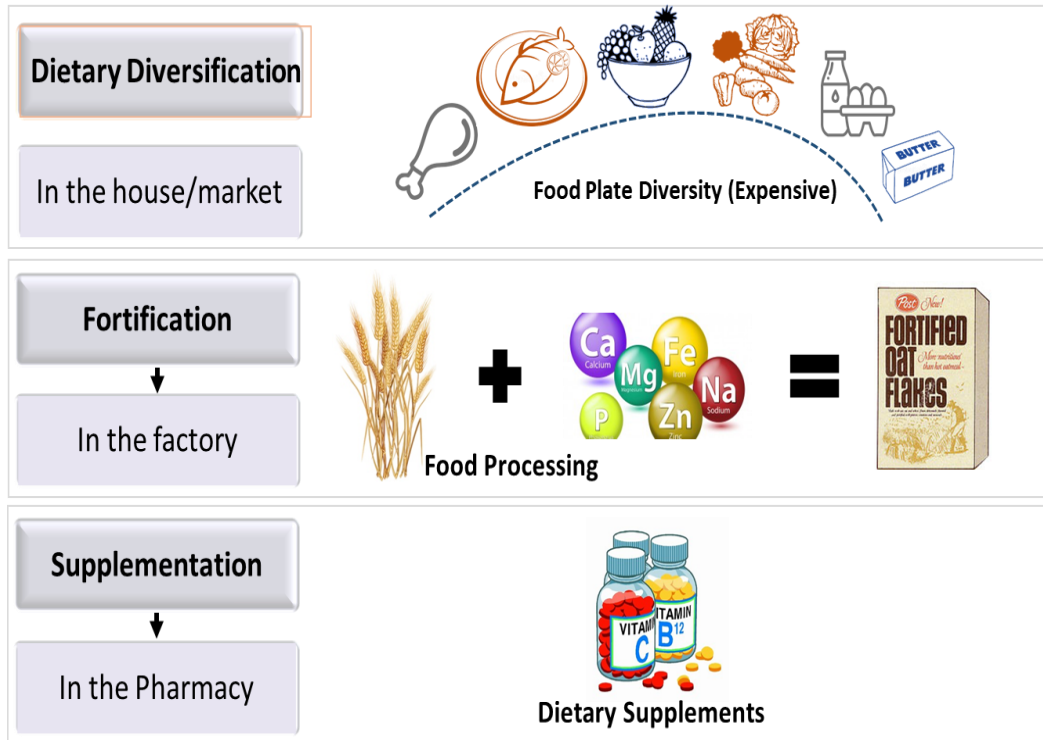
Weakened immunity



Anaemia

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.

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)

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



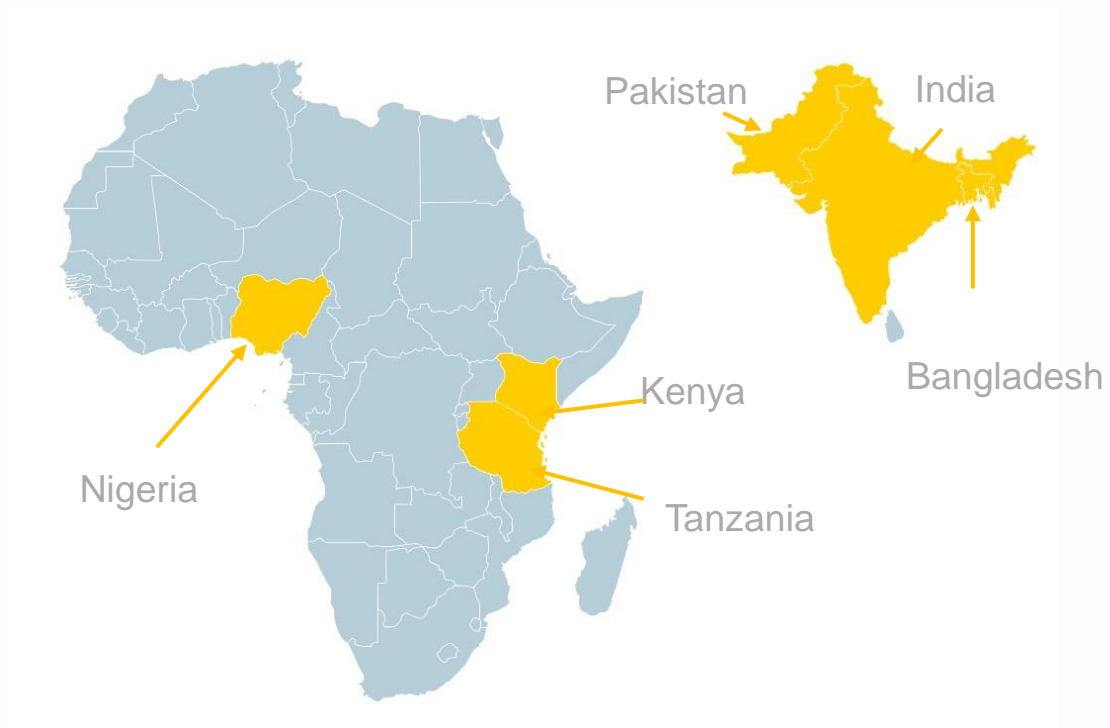
Strengthen demand for these nutrient-rich staple crops

GOAL 3



Improve the enabling environment for biofortified foods and food products

Programme Countries & Crops



Iron



Pearl Millet

Provides **up to 80%** of daily iron needs



Beans

Provides **up to 80%** of daily iron needs

Zinc



Wheat

Provides **up to 50%** of daily zinc needs



Rice

Provides **up to 40%** of daily zinc needs

Vitamin A



Cassava

Provides **up to 100%** of daily vitamin A needs



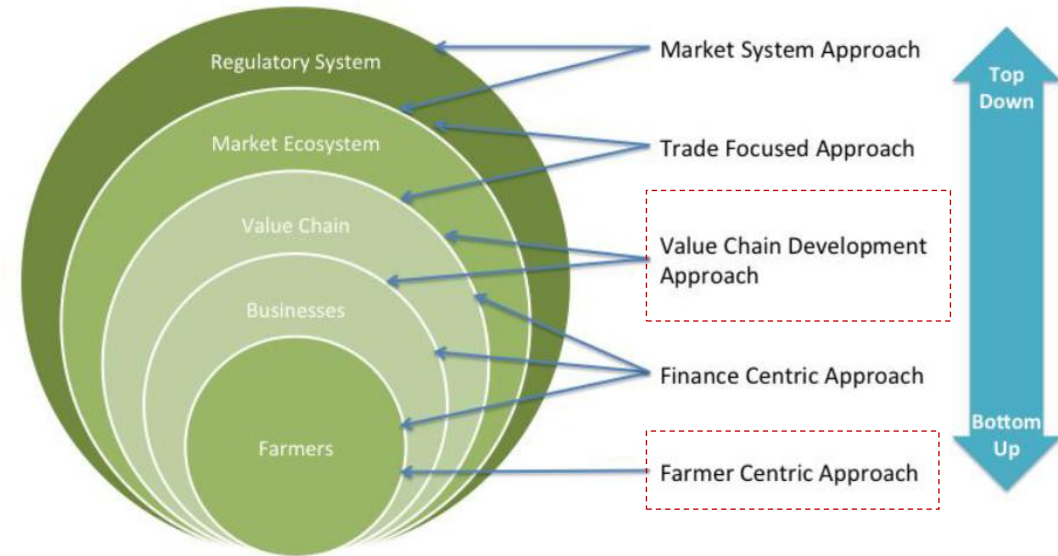
Maize

Provides **up to 50%** of daily vitamin A needs

Programme approach

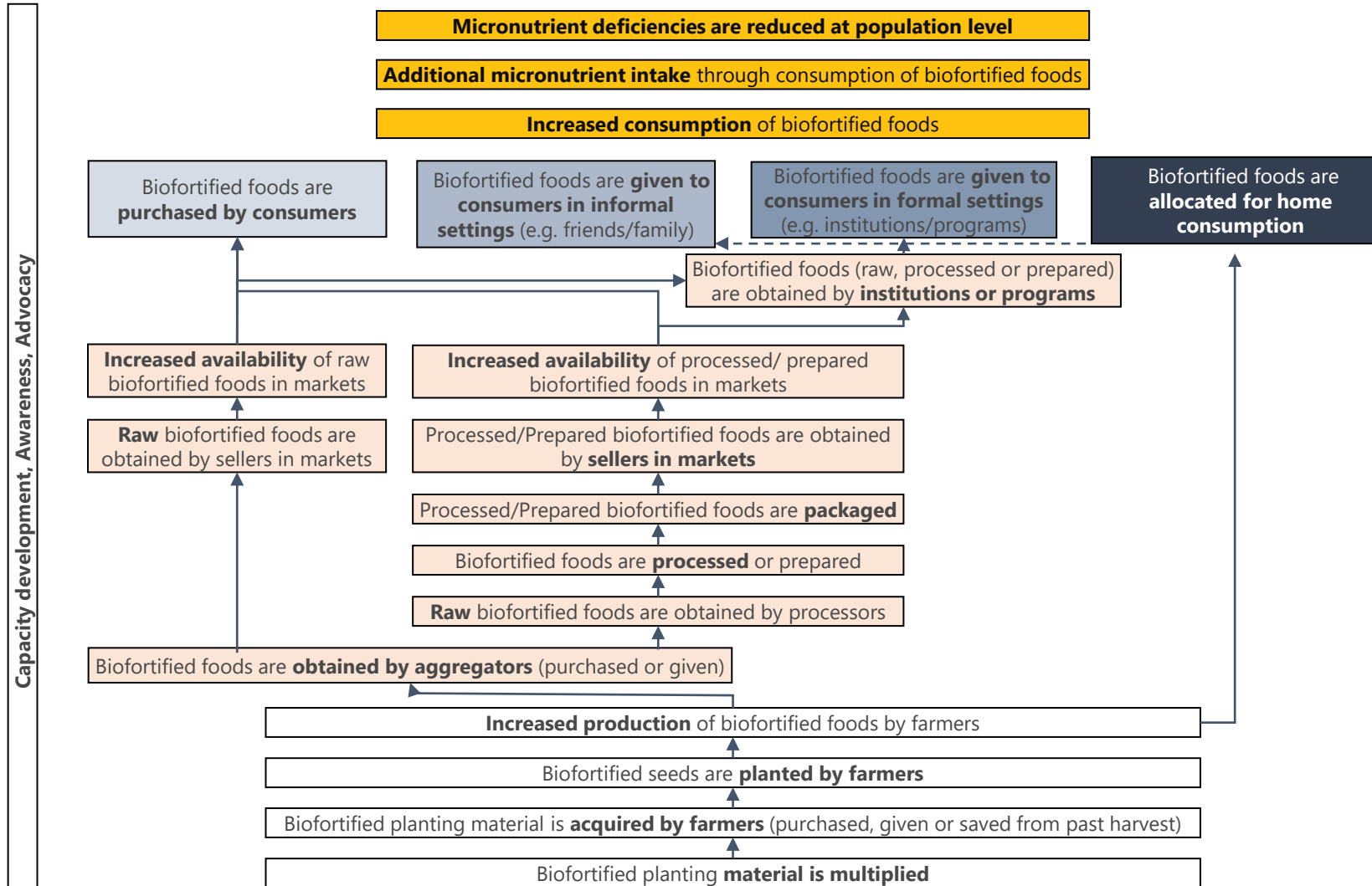
The CBC Programme works with country partners on a **value chain approach** to creating sustainable commercial pathways for biofortification:

- 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

Programme impact pathways





Challenges and Opportunities >>



Expanding the reach of nutrient-enriched staples.

Challenges

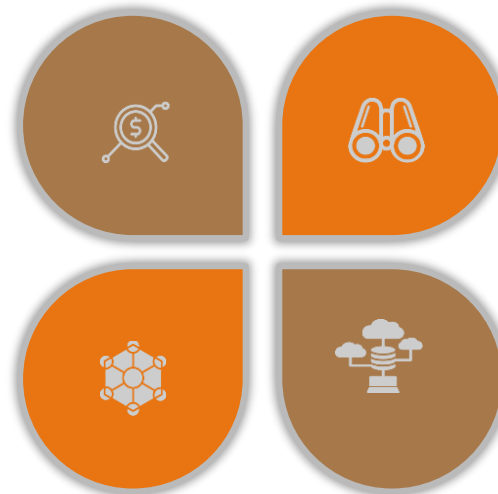
Certain challenges need to be addressed for scale up, sustainability and long-term impact:

Demand

- Awareness
- Price

Private & Public Partnerships

- Policy
- Awareness
- Product development

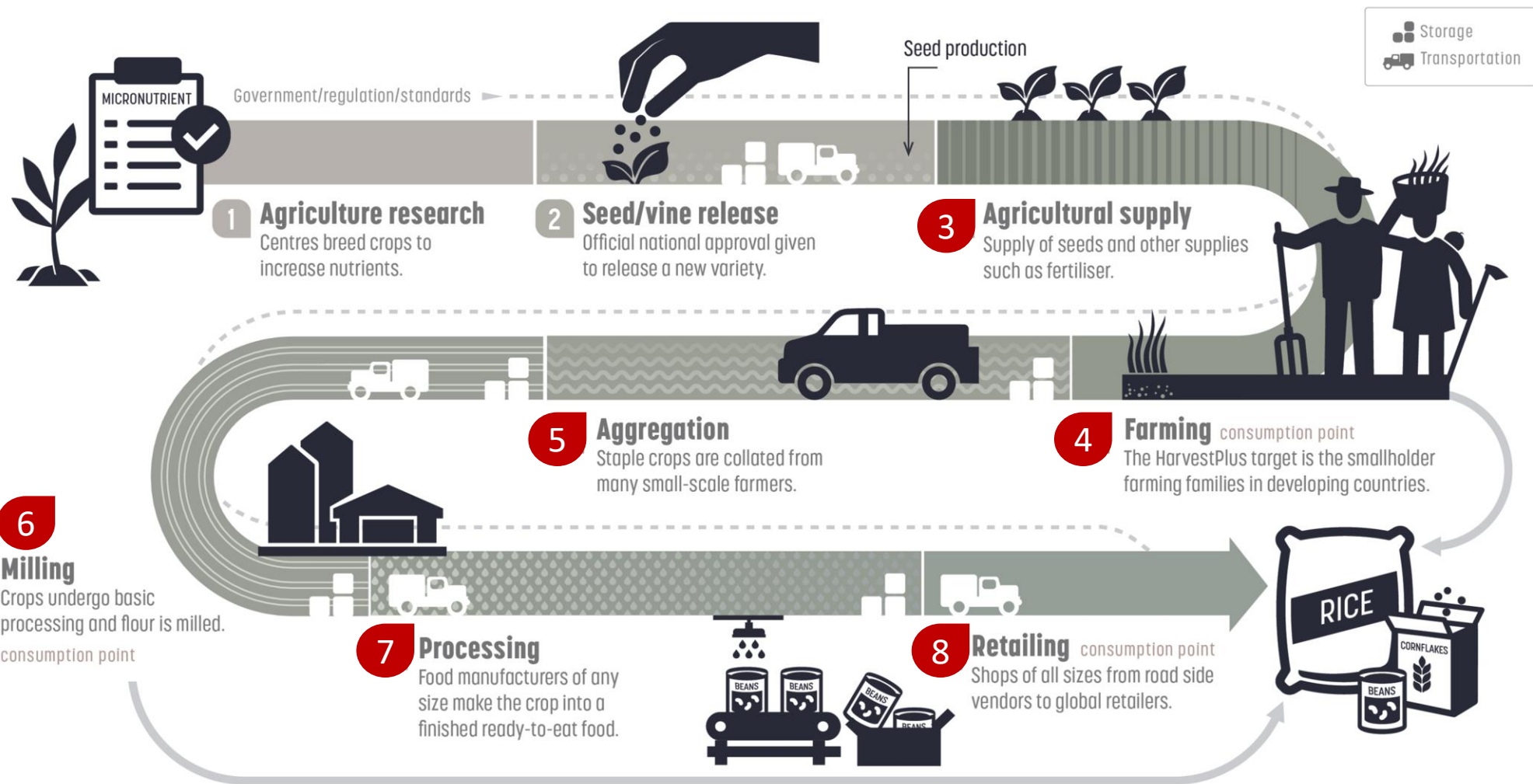


Differentiation

- Appearance
- Taste

Traceability & Aggregation

- Standards
- Sporadicity
- Adulteration



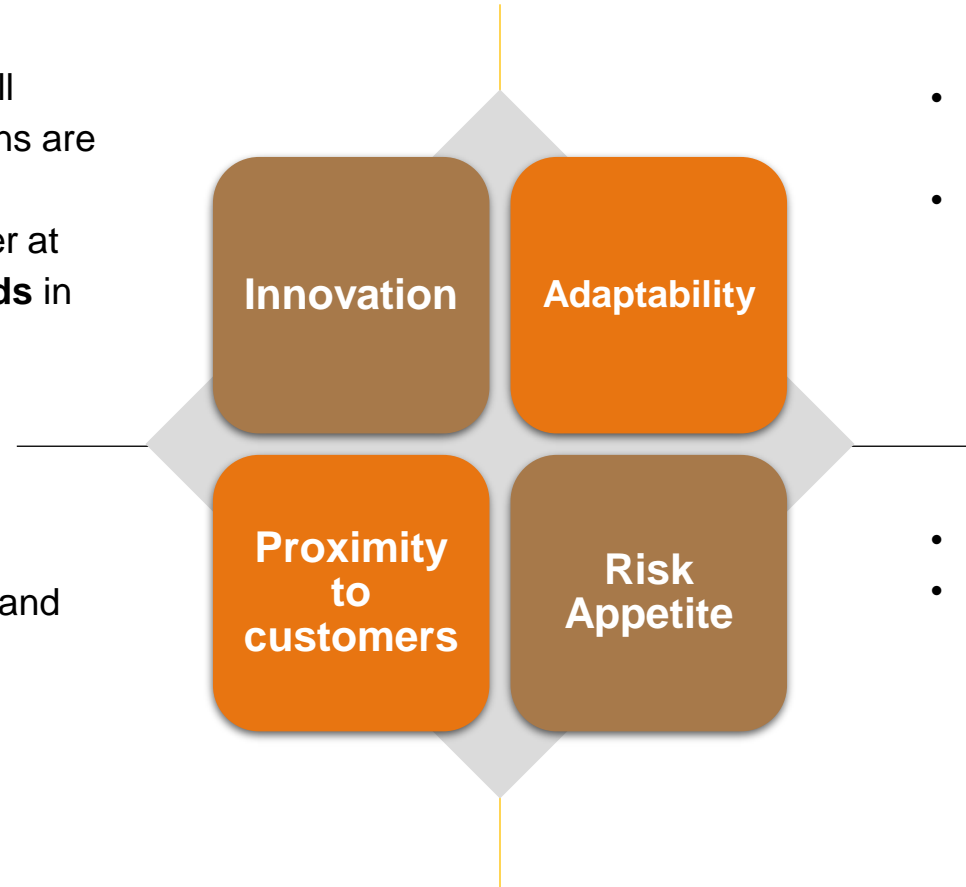
Small and Medium Business Enterprises

- 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
- Obvious, but a trump card!
- Deal with **customers directly**, understand their needs accurately, and establish stronger bonds



- Inherently, SMEs focus on creating new products or services to be successful
- Detect **market niches & adapt faster** to the changing requirements
- **Conceptualize and Test**
- Pave the way for bigger and braver investments

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

Resolving supply chain challenges in CBC

Agriscope: Kenya

Profitable seed multiplication and marketing models.

Dehaat : India

Aggregation, traceability and digital outreach.





Thank You

Co-led By:



gain
Global Alliance for
Improved Nutrition



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