

# EQUIPPING THE FOOD INDUSTRY TO INNOVATE TO REDUCE LOSS AND WASTE



## **ACTIVITY: IMAGINE YOU WERE A FOOD PROCESSOR**

Medium-size yogurt processor sourcing milk from small-scale female herders had discolouration + browning on the cap of the yoghurt, lumping, bloating.

Substantial waste (approx. 800 litres of milk/week) + decline in market share and loss of trust).

In 2018, our client processing stews and tomato sauces faced significant product returns (35%) due to bloating of the pouches after 2 weeks. Led to a serious social media scandal

Small processor processing 200kg/hour of fresh tomatoes, sourced from northern Nigeria.

## **WHAT WAS THE CAUSE?**

## **IMAGINE YOU WERE A FOOD PROCESSOR: CAUSE**

### **Cause 1: Process Control and Food Safety Lapses**

- Contamination, cold storage issues, incomplete fermentation (pH not low enough, allowing growth of Clostridium species, molds, and yeasts), formulation changes without validation, and too little stabilizers.

### **Cause 2: Equipment and Procedure Deficiencies**

- Crevice in the packaging pouch filling machine trapping old tomatoes, poor equipment design, inadequate cleaning procedures, and lack of product testing.

**Key message:** Suboptimal processing could lead to food waste, packaging, transport energy, resources, income.

**If you were a food processor, what would you need to prioritize FLW?**

# WHAT DOES IT MEAN TO EQUIP FOOD PROCESSORS

Dual Impact Actions to Address Climate Change and Improve Nutrition + Business Profitability

- **Connect to the business case + business incentives**
  - Profit Margin Management
  - Derisking Investment + Access to Finance
- **Supply Chain and Operations Management**
  - First time right production (**Reduce Off Specs!**) : Food Safety + Quality Control, Shelf Life Studies
  - R&D/Product Development: reuse and repurpose, whole grains
  - Process Optimization: **Measure and Manage**
  - Logistics and Sourcing
- **Mechanization and Technology**
  - Right equipment at the right time
  - Bioenergy and Energy Sources
  - Packaging and Storage Technology
- **Access to Market and Information**
  - Demand Generation and Market Entry
  - Branding
  - Responsible Marketing! No buy one get one free!

# OPPORTUNITIES TO IMPROVE NUTRITION THROUGH PROCESSING AND PRESERVATION (OPTINUP)

## Program Rationale

- Low consumption of nutrient-dense foods (18%-31% RDA), esp with low-income consumers (LICs).
- Food processing can solve seasonality, post-harvest losses, affordability, availability.
- SMEs face barriers and incur more cost to reach LICs
- LICs prefer fresh to processed foods

## BMGF NFS GOAL

- Increase equitable consumption of a safe, affordable, nutritious diet year round
- Increase women's empowerment in agriculture
- Increase women's control of household income.
- Increase quality, efficiency, and reach of private sector services.

## Our Focus

- Project Beneficiaries: **Women Led Businesses (micro processors)** and Low income Consumers
- 5 Products: Smoked and dried fish, yoghurt and fura, dried tomatoes, dried okra
- 5 States: Lagos, Kaduna, Oyo, Ogun, and Anambra.
- Technical and Business Support

# SUPPORTING AFRICAN PROCESSORS: DEPLOYING INDUSTRY EXPERTISE & KNOWHOW

- Demand exceeds local prod. (39% gap)
- Rice Self sufficiency (Economy, Food Security, Livelihoods, Climate)
- >\$3.5 billion spent on imports + footprint from imports
- Low paddy production
- Post harvest losses (as high as 30%)
- Low processing recovery rate (<45% instead of 68%)
- Nutrient losses from polishing (fortification + whole grain)

