



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

This presentation is part of the

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Linking Agriculture and Nutrition: Value Chain Analysis-Based Tools for Enhancing the Nutritional Impacts of Agricultural Interventions

Structure of the presentation

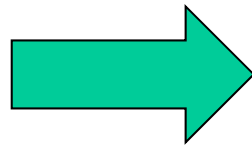
- Introduction
- The tool (paper version)
 - Kenya example
 - Tanzania example
- Conclusions

About GAIN

- Created in 2002 at a Special Session of the U.N. General Assembly on Children.
- Builds and supports innovative partnerships among the public and private sectors to increase access to and consumption of nutritious foods at Scale
- Current reach : over 600 million people (half women and children)
- >30 countries , goal is to reach 1.5 billion people within the most vulnerable populations around the world through access to sustainable nutrition solutions

GAIN Initiatives/programs

1. Large scale fortification
2. Agriculture and Nutrition
3. Maternal, Infant and Young Children Nutrition
4. Nutritious diets for vulnerable groups



The tool to be presented is part of the Ag-Nut Initiative



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GAIN approach: Removing obstacles and invest in opportunities along the value chain



	Inputs into Food Production	Food Production	Food Storage and home processing	Industrial Food Processing	Distribution, Transport & Trade	Food Retailing, Marketing & Promotion	Food Preparation & Catering
Activities	<i>Seeds, fertilizer, pesticide, irrigation, organic matter, equipment, crop selection</i>	<i>Farming practices, (tillage practices, irrigation frequency, cultivation), harvest and post-harvest techniques</i>	<i>At or Near the Farm: Home or warehouse storage & processing</i>	<i>Industrial: Food storage & manufacturing</i>	<i>Bulk packaging and transport to market</i>	<i>Point of Purchase</i>	<i>Point of Consumption</i>
Nutrition Opportunity	Deliver micronutrient fertilizers, diverse horticultural seeds, biofortification	Crop diversification; Limited research on effect of farming practices on nutrient content of crops	Commodity storage that reduce exposure to heat and sun. Reduced milling and polishing time.	Fortification	Nutrition sensitive bulk packaging and transport	Nutrition sensitive retail packaging and branding, Promoting importance of good nutrition	Promoting importance of good nutrition. At home fortification
Value Chain Actors	Crop researchers and agricultural scientists, extension services, Seed companies, fertilizer companies farmer cooperatives, agrochemical and farm machinery companies	Farmers, agricultural laborers, cooperative extension services, equipment manufacturers	Granaries, local millers, crushers, storage container companies, cooperative extension services	Processed food manufacturers, industrial mills, fortificant manufacturers, blenders, mineral companies	Importers, exporters, brokers, traders, wholesalers	Informal & formal food retailers, restaurant, food service, advertising, media & communications companies	Consumers, restaurant, and food service companies



Agriculture

Crops/Livestock
Farm households
Quantity of food
Food availability

Agriculture and Nutrition: The Institutional Gap



Health

Nutrients
Lifecycle groups
Nutritional quality
Access to food

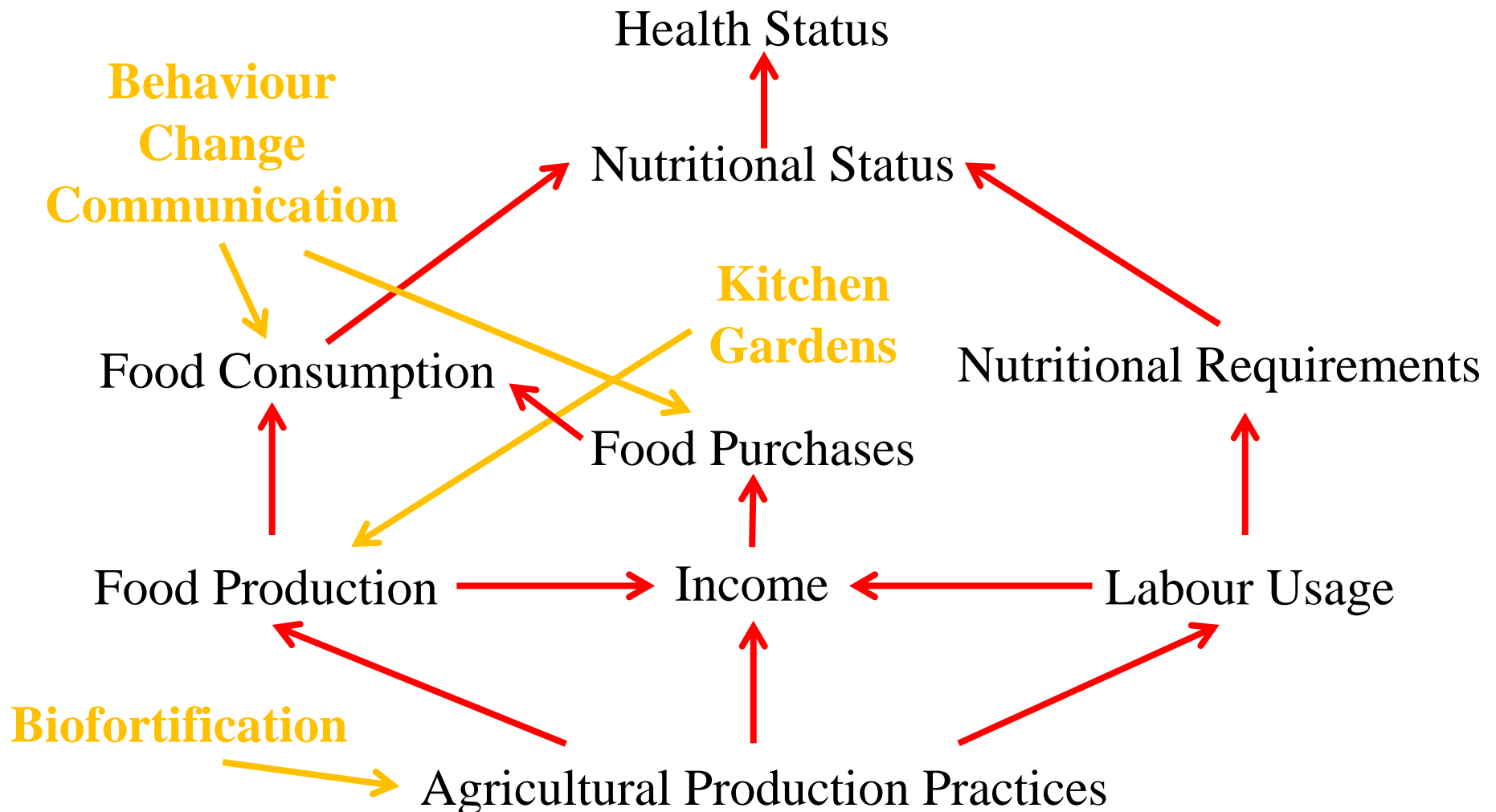
Why Agriculture –Nutrition Integration?

- Global rates of undernourishment remain persistently high
- Increasing concern about co-existing ‘hidden hunger’, underweight and overweight
- Agriculture ‘back’ on the donor agenda:
 - Global food crisis
 - Failure to meet MDGs on undernutrition
- Agriculture seen as key to enhanced nutrition
- Recognition of widespread failure to integrate agriculture, nutrition and health

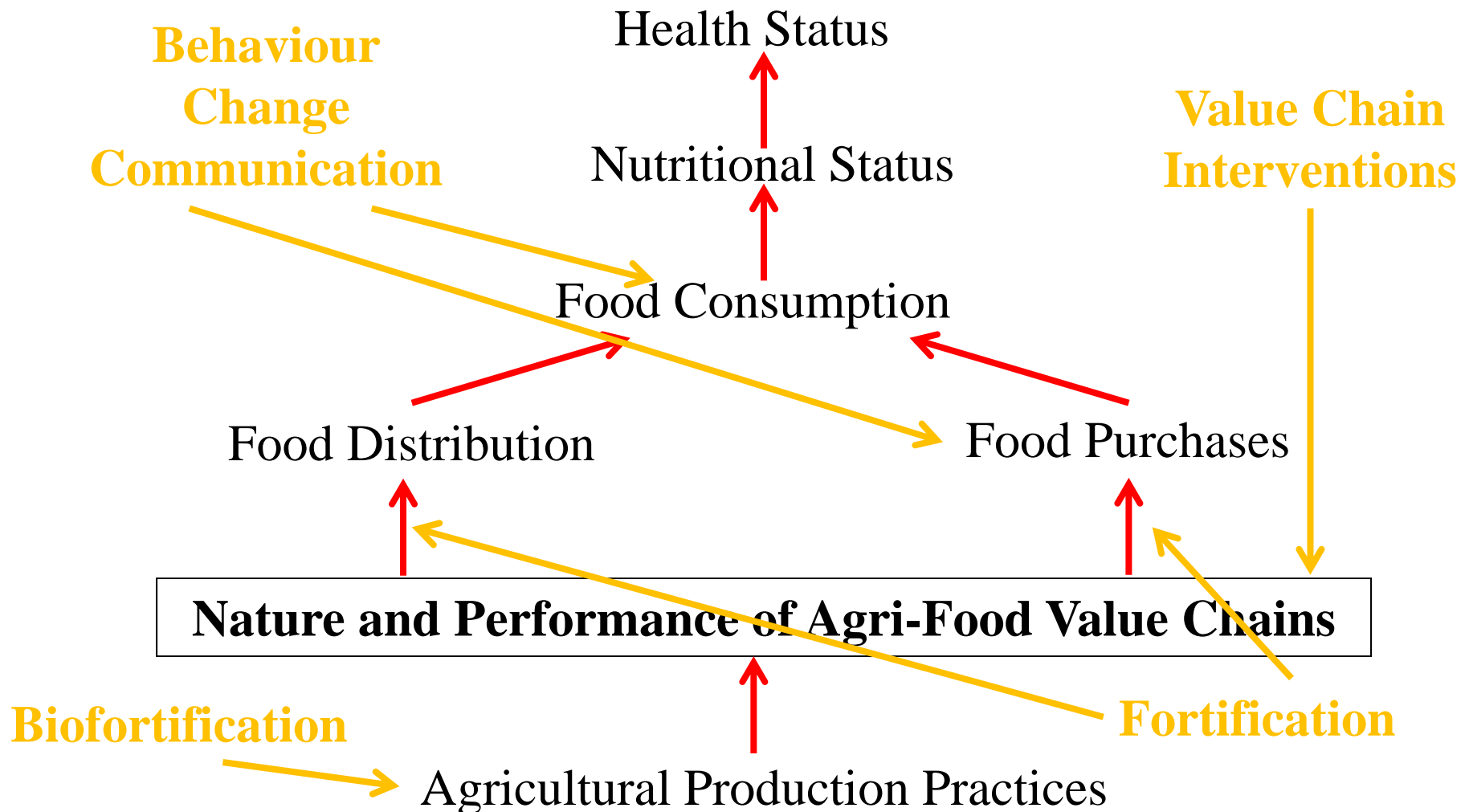
Routes from Agriculture to Improved Nutrition

- Agriculture as a driver of macro processes of income growth and improved nutritional outcomes (Vanilla –boom babies In Mukono)
- Enhanced nutritional outcomes in producer households from increased consumption (Nile perch value chain & Stunting in SW Ug)
- Enhanced nutritional outcomes in non-producer households

Nutritional Enhancement in Producer Households



Nutritional Enhancement in Non-Producer Households





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Linking Agriculture and Nutrition: Value Chain Analysis-Based Tools for Enhancing the Nutritional Impacts of Agricultural Interventions

Nutritious Agriculture by Design: A Tool for Program Planning

The tool considers:

- What evidence is there that the project is bringing about nutritional improvements in consumers that are nutritionally deficient?
- How are these nutritional improvements being brought about?
- What challenges might prevent any potential nutritional improvements from being realized and how are these challenges being alleviated?
- What engagement is there with the private sector in trying to realize these nutritional improvements?

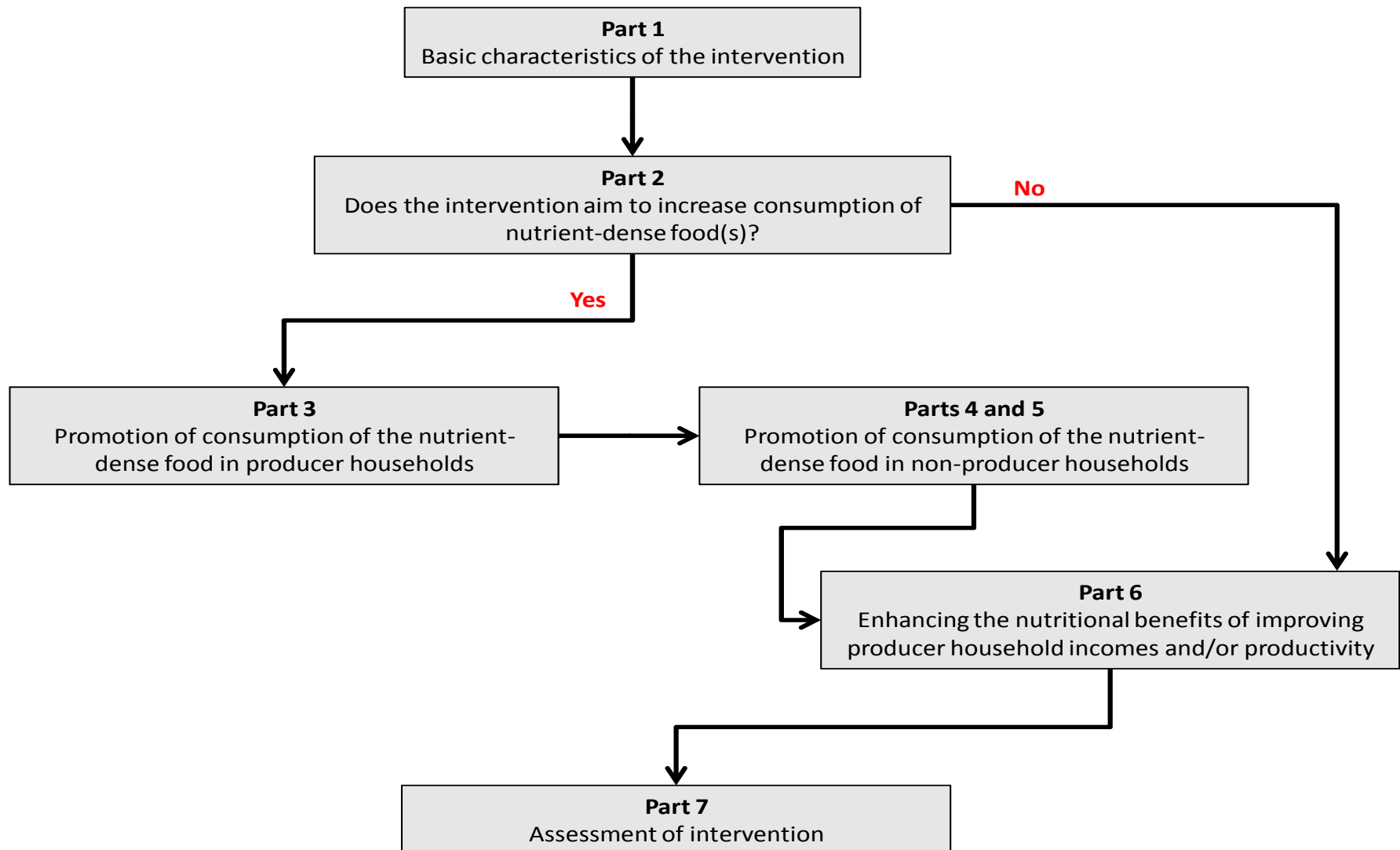
Nutritious Agriculture by Design: A Tool for Program Planning

- Applications:
 - Prompt redesign of existing projects
 - Enhance specifications for new projects
- Users:
 - Project/program implementers
 - USAID and other donors
- Formats:
 - Paper
 - Electronic

Routes from Agriculture to Nutrition

	Income Route	Consumption Route
Consumption of Nutrient-Dense Food by Target Producer Households	?	?
Consumption of Nutrient-Dense Food by Other Households		?

Structure of the Tool



Testing the Tool

- Focus on existing agricultural projects
- Interventions applied to Feed the Future priority value chains in select countries:
 - Kenya
 - Bangladesh
 - Mozambique

Application Process Using the Tool

- In many contexts requires information from multiple individuals
- Can be a challenging process:
 - Requires reflections on working assumptions
 - Slightly repetitive
- Effective at starting crucial thought processes
- Good at identifying ‘low hanging fruit’

In the case of Kenya

- 25 commodity value chains were examined in defining USAID's on-going Feed the Future strategy and to which four filters were applied:
 - Value chains with high revenue per hectare (**income potential**).
 - Value chains with large numbers of smallholders (**scalability**).
 - Value chains with the highest nutritional value (**nutrition**).
 - Value chains with likely strong demand and competitiveness (**competitiveness**).
- This led to the selection of three sectors in two priority geographical regions: 1) horticulture, maize and drought-resistant crops in Region SA2; and 2) horticulture, maize and dairy in Region HR1.

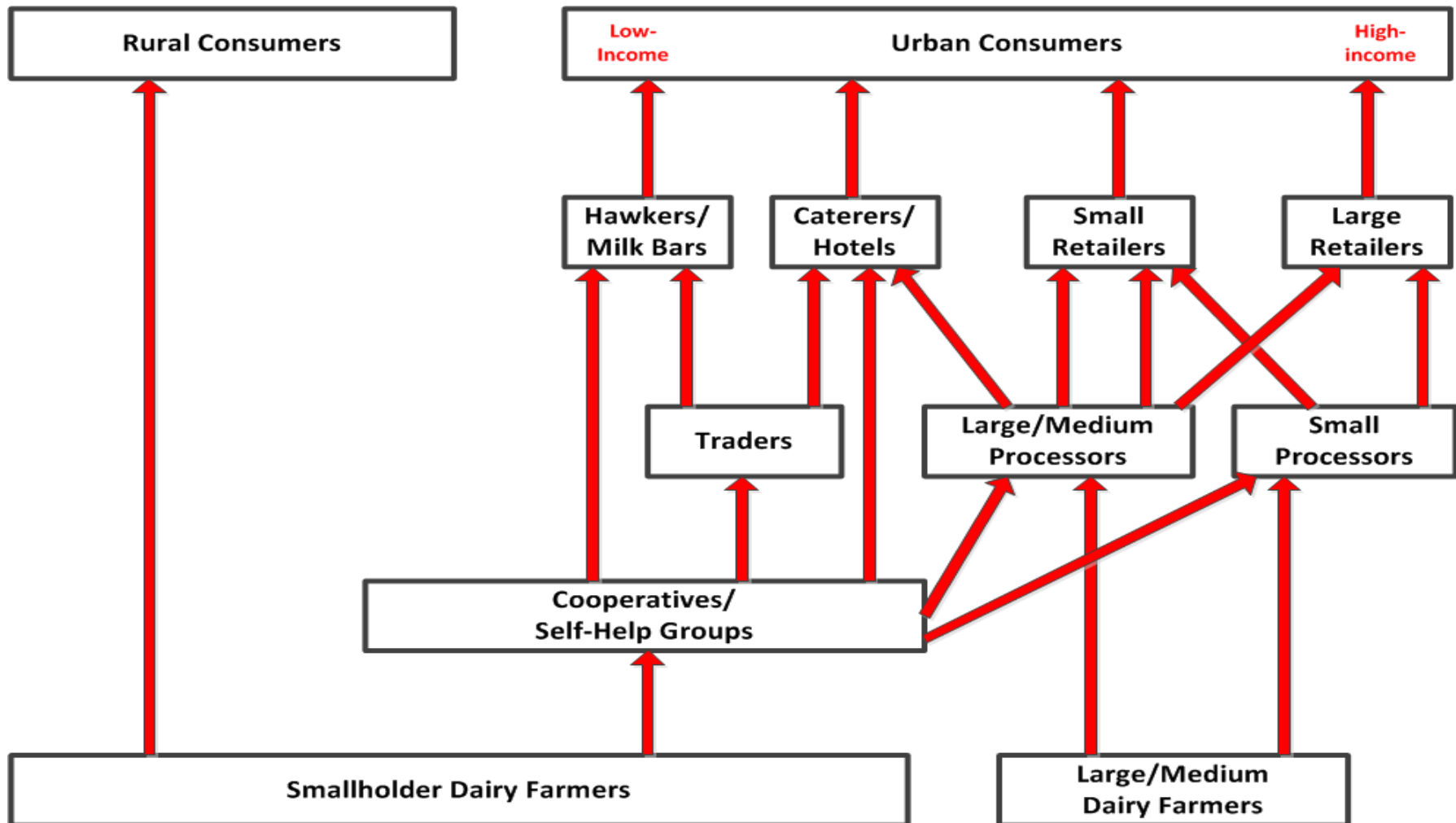
Testing the Tool: Kenya

- **Kenya Dairy Sector Competitiveness Program (KDSCP)**
- **Kenya Maize Development Program (KMDP):**
 - Maize
 - Common beans
 - Other staple crops
- **Kenya Horticulture Competitiveness Project (KHCP):**
 - Passion fruit
 - Sweet potato
 - Tomatoes
 - Various other horticultural crops

Potential target groups in which consumption of milk and dairy products can conceivably be enhanced in Kenya (steps 3, 4, & 5)

- **Consumption Route (direct):**
 - Own-consumption by *producers* directly targeted by the program.
- **Consumption Route (indirect):**
 - Market purchases of milk by predominantly *poor non-producer households* in both rural and urban areas.
- **Consumption Route (indirect):**
 - Direct distribution to *schoolchildren* through a school milk program.

KDSCP Value Chain Mapping



KDSCP: Evidence for Consumption Route

Condition	Direct Beneficiary Households	Wider Population Groups	
		Poor Consumer Households	School Children
Consume (more) milk and/or dairy products if available	Yes	Yes (?)	Yes (?)
Project will maintain/increase consumption of milk and/or dairy products	Yes	Yes (?)	Yes (?)
Consumption of milk could decline in target producer households as a result of efforts to commercialize production	Yes	-	-
Increased consumption of milk and/or dairy products will enhance diet quality/diversity	Yes (?)	Yes (?)	Yes (?)
Baseline nutritional assessment has been undertaken	No	No	No
Opportunities for private sector, NGO and/or public sector engagement to market to target consumer groups	Yes	Yes	Yes
Nutritional outcomes and impacts included in monitoring and evaluation schedule	Scope	Scope	Scope

Challenges in Realising Consumption Impacts

Consumption

- Value chain ‘pinch points’ (e.g. storage, cold chain)
- Preserving/enhancing nutritional value
- Consumer acceptability

Inputs and Production

KDSCP: Assessment of Challenges (step 7)

Programme	Scope to Address?	Private Sector Engagement?
Inputs and production		
Animal housing	Yes	Yes
Storage, Transport and Processing		
Transport infrastructure	No	No
Distribution and Marketing		
Packaging	Yes	Yes
Storage infrastructure	Yes	Yes
Transport infrastructure	No	No

KDSCP: Assessment of Challenges

Programme	Scope to Address?	Private Sector Engagement?
<p>Recommendations:</p> <ul style="list-style-type: none"> Promotion of milk dispensers Promotion of more appropriate milk packaging Promote milk and dairy product consumption Facilitate dairy product production More rigorous assessment of impact on milk consumption 		
<p>in-home milk preparation practices</p>	<p>(Yes)</p>	<p>(Yes)</p>
<p>Affordability</p>	<p>(Yes)</p>	<p>(Yes)</p>

Potential for Negative Consequences?

- **Consumption:**

Promotion of consumption → consumption substitution?

- **Production:**

Small scale cold storage → reduce on-farm consumption?

- **Processing/Marketing:**

Individual packaging → cost implications for poor consumers?

Difficult Trade-Offs

- Producer targeting:
 - Income
 - Nutritional status
 - Productive potential
- Agricultural production;
 - Staples
 - Nutrient-dense foods
 - High-value non-nutritious foods
 - Non-foods
- Target markets:
 - Exports
 - High income consumers
 - Low income consumers

Conclusions

- Participatory approach: facilitate dialogue between donors, NGOs, private sector and government
- Identification of specific activities that can be included/modified that will increase the potential for nutrition impact
- Encouraging dialogue on public-private sector engagement and expanding the scope of product potential (i.e. profit-bearing production of more nutritious foods)
- Prompts program managers and USAID to consider measurement of feasible indicators for projects (typically more input/output level) and development objective (typically outcome/impact)
- The tool is not designed to design projects and programs *per se*, but to provide an assessment of the degree to which nutritional impacts have been thought about and integrated into the design.



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Thank you!

Mwebale!