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(AgN-GLEE)

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For additional presentations and related event materials, visit: http://spring-nutrition.org/agnglee-lac
NUTRITIOUS FOOD THROUGH AGRICULTURE

INTRODUCTION TO GAIN PROGRAMMING

March 7, 2013
Existing interventions can due a better job at delivering at scale. The role of market based approaches

- Drive scale from proven impact
- Demonstrate effectiveness
- Demonstrate efficacy

Health effectiveness (empirics)

- Research Institutions
- NGOs
- Private Sector
- Governments

Delivery model effectiveness

- Develop scalable solutions
- Demonstrate impact at scale
- Drive continuing impact
## Four Core Initiatives Defined to Fulfill Vision, Focus Interventions and Apply Existing Expertise

<table>
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<tr>
<th>Initiative</th>
<th>Description</th>
<th>Project Example</th>
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<td>Interventions to increase access to adequately fortified staple foods and condiments through sustainable methods</td>
<td>• Developing Ghana’s salt banks for iodized salt production</td>
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<td><strong>Multinutrient supplements</strong></td>
<td>Interventions to improve micronutrient deficiencies among young children and other vulnerable groups</td>
<td>• Distributing Sprinkles in Kenya to improve nutrition of infants</td>
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<td><strong>Nutritious foods for mothers and children</strong></td>
<td>Interventions to improve the nutritional status of children under 2 and pregnant and lactating women (PLW)</td>
<td>• Supporting women’s groups to produce nutritious foods</td>
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<td><strong>Nutritious Foods through Agriculture</strong></td>
<td>Interventions to improve nutritional quality of agricultural products through market-based interventions along the agricultural value chain</td>
<td>• Strengthening links between agriculture and nutrition in Kenya</td>
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Who are the undernourished and where do they live? Expanding our impact

The BoP is sourcing food from both rural & urban markets

**Rural** - “2.5 billion BoP consumers live in rural areas, mainly in Asian and African villages, where agriculture is often the primary economic activity” – The *World Economic Forum* (2009)

**Urban** – “although childhood malnutrition has typically been a less severe problem in urban than in rural areas, the accelerated rates of urbanization currently observed in the developing world raise new concerns regarding increasing rates of urban malnutrition” – *IFPRI* (2004)

...with food costs representing their largest expense

“Purchasing food takes more than half of BOP household budgets in many countries, especially in Africa and Asia…Food represents the largest share of BOP household spending and the largest BOP market, estimated at USD $2.89 trillion” – *IFC & WRI* (2007)

...and source of livelihoods

“Around 70 percent of the BoP population depends on food production for their income, either as smallholders or entrepreneurs” - *BoP Innovation Center* (2012)
There is an opportunity to improve nutrition along the agriculture value chain

Agriculture has historically focused on productivity and volume, rather than the quality of nutrition content (biofortification is an exception).

• “If the agriculture sector is to play a more important role in improving nutrition, there needs to be a greater focus on what happens between production and consumption.” - IFPRI (2011)

• “…the complexities of the food value chain and the interdependence of its different components present both a challenge and an opportunity” – The World Economic Forum (2009)
Objective: To improve the affordability, accessibility, and consumption of nutrient-dense diverse foods along the agricultural value chain.
Highlighting key areas along the value chain where nutrients are lost: input and post-harvest

### 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**

**Importers, exporters, brokers, traders, wholesalers**

**Informal & formal food retailers, restaurant, food service, advertising, media & communications companies**

**Consumers, restaurant, and food service companies**

### Activities

**Inputs into Food Production**
- Seeds, fertilizer, pesticide, irrigation, organic matter, equipment, crop selection

**Food Production**
- Farming practices, (tillage practices, irrigation frequency, cultivation), harvest and post-harvest techniques

**Food Storage and home processing**
- At or Near the Farm: Home or warehouse storage & processing

**Industrial Food Processing**
- Industrial: Food storage & manufacturing

**Distribution Transport & Trade**
- Bulk packaging and transport to market

**Food Retailing, Marketing & Promotion**
- Point of Purchase

**Food Preparation & Catering**
- Point of Consumption
A value chain approach that recognizes the source of food for BOP populations

<table>
<thead>
<tr>
<th>Markets</th>
<th>Inputs into Food Production</th>
<th>Food Production</th>
<th>Food Storage and home processing</th>
<th>Industrial Food Processing</th>
<th>Distribution, Transport &amp; Trade</th>
<th>Food Retailing, Marketing &amp; Promotion</th>
<th>Food Preparation &amp; Catering</th>
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<tbody>
<tr>
<td>On Farm Consumption</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Local Market</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Formal Markets</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Public Institutions</td>
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<td>X</td>
<td>X</td>
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<td>X</td>
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Ag-Nut Opportunity areas for GAIN

Traditional GAIN focus areas
Investments

MNF

Policy and Advocacy

Evidence Base and Tools

Nutritious Foods through Agriculture

Interventions to improve nutritional quality of agricultural products through market-based interventions along the agricultural value chain
Nutritious Food through Agriculture

Interventions to improve nutritional quality of agricultural products through market-based interventions along the agricultural value chain.
Building an evidence base across five focus areas

“The first constraint to action … has been a perceived lack of clarity in guidance and evidence for nutrition-friendly agriculture. Interested agriculture professionals have been unclear on what to do to improve nutrition through agriculture, and the nutrition community on the whole has not yet come together around common advice.” – FAO (2012)

- **Nutrition Sensitive Value Chain Practices**: The extent to which the food production system is losing nutrients along the value chain. Effective mechanisms to lay a nutrition lens on agricultural programs.
- **Cost Effectiveness and Affordability**: Little understanding and knowledge in defining high-cost inflection points along the agricultural value chain for nutritious foods. Limited analysis of the comparative cost-effectiveness among nutrition interventions.
- **Market Feasibility**: Little information on market demand, cost effective acquisition and consumption in target population.
- **Consumer Behavior**: Little knowledge and awareness of ways to market nutrition-focused interventions and drive consumer demand.
- **Measurement & Impact Assessment**: “We recommend that more rigorous impact evaluation studies of agricultural interventions be conducted in the future” – Masset (2011)
Building an evidence base across five focus areas

“The first constraint to action ... has been a perceived lack of clarity in guidance and evidence for nutrition-friendly agriculture. Interested agriculture professionals have been unclear on what to do to improve nutrition through agriculture, and the nutrition community on the whole has not yet come together around common advice.” – FAO (2012)

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- Effective mechanisms to lay a nutrition lens on agricultural programs.

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**Consumer Behavior**
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**Measurement & Impact Assessment**
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### Example: Building evidence base for nutritious rice along the value chain

<table>
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<tr>
<th>Input</th>
<th>Post-Harvest</th>
<th>Research partners</th>
<th>Interventions</th>
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<tr>
<td>Inputs into Food Production</td>
<td>Food Production</td>
<td>Zinc fertilizer for nutritious rice in Bangladesh</td>
<td>No intervention tested</td>
</tr>
<tr>
<td>Food Storage and home processing</td>
<td>Food Processing</td>
<td>Opportunities to mitigate losses of nutrients during soak, parboil and polishing in small and medium scale mills</td>
<td>Laboratory and Market Feasibility studies</td>
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<td>Industrial Food Processing</td>
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**Research partners**
- BRRI, Waite analytical services
- HarvestZinc
- IZA
- BRRI, Waite analytical services
- ICDDR,B
- Consumers, restaurant, and food service companies

**Intervention**
- BRRI, Waite analytical services
- Farmers, agricultural laborers, cooperative extension services, equipment manufacturers
- ICDDR,B
- Importers, exporters, brokers, traders, wholesalers
- Informal & formal food retailers, restaurant, food service, advertising, media & communications companies
Nutritious Food through Agriculture

Interventions to improve nutritional quality of agricultural products through market-based interventions along the agricultural value chain.
Building engagement of actors

“For better nutrition and health for the poor, agricultural researchers will need to work closely with nutrition and public health researchers and link with food-value-chain actors, development program implementers, and policy-makers…looking beyond food production to processing, distribution, and consumption through deeper engagement with the private sector and other value-chain actors” – IFPRI (2011)

Mobilizing and engaging agricultural producers for improved nutrition in Africa and Asia

Comprehensive Africa Agriculture Development (CAADP): nutrient sensitive

Kenya:
Nutrition sensitive certified tea and coffee value chains

Indonesia
Nutrition sensitive certified cocoa value chain
Nutrition sensitive cash crop supply chains: Cocoa

- Minimal 70% of the cocoa is produced in area with more than 28% stunting
- By 2020, more than 40% of the cocoa will be certified.
- Certified farmers are organized in groups. This is the new and cost efficient entry point into communities: household decision makers.

Certification level in 2020:

- Mondelēz
- Nestlé
- MARS
- HERSHEY’S
- FERRERO

more than 40% of the total production
Combining Good Agricultural Practices with Good Nutritional Practices

Goal: Integrate better nutrition practices into existing crop production certification programs for coffee, tea, and cocoa

Intervention:
- Certified farmers receive targeted nutritional training and consume a more diverse diet at the household level.

Next steps evidence generation and intervention validation starting with cocoa:
- Build a platform for engagement with WCF and industry (Mars, Mondelez, Hershey, etc)
- Need to test most effective nutrition interventions as recommended certification activities for cocoa producing households
Investments

Policy and Advocacy

Evidence Base and Tools

Nutritious Food through Agriculture

Nutritious Foods through Agriculture
Interventions to improve nutritional quality of agricultural products through market-based interventions along the agricultural value chain
Scope of engagement across business cycles

- **Blueprint**: the knowledge and networking services by the Community of Practice, help the members establish the foundation to transform their ideas into tangible products or services that deliver better nutrition.

- **Startup**: opportunities for enterprises to validate the commercial viability and nutritional scalability of their business model through business plan development, followed by grant funding and technical assistance.

- **Growth**: enterprises scale up their delivery to fill the unmet demand for their products or services amongst the target population. GAIN expects this stage to be funded by either external social investors or GAIN’s own investment funds.

- **Maturity**: investment in mature enterprises remains the primary domain of private and social investors. The Marketplace for Nutritious Foods will provide an interface to these sources of investment.
The MNF is a convening, innovation business planning, technical assistance and investment platform that works with local enterprises along the agriculture value chain, to bring more affordable nutritious foods to market.

1. **Improve access and availability of diverse and nutritionally enhanced foods for the rural and urban BoP markets**

2. **Catalyze and fund innovations that improve or preserve the nutritional content of commodities and foods all along the value chain.**

3. **Provide investors with a portfolio of technically vetted investable opportunities that will lead to sustainable efforts to reduce malnutrition.**
The Marketplace for Nutritious Foods:

Service Portfolio

High impact agriculture-nutrition innovations
- Extensive one-on-one business concept review
- Marketable business plan development and advisory services
- Direct investor interface
- Investment de-risking and M&E

Nutritious Foods community
- Seminars on best practices and business development
- Networking platform for engagement along the supply chain
- Ag-Nut community development
- Food policy monitoring and advocacy
Local enterprises and entrepreneurs apply to the Innovation Accelerator, which provides advanced services to scale their innovative businesses for nutrition impact.

**Concept review ➔ Business planning ➔ Investment and leverage**

**Technical Advisory Committee** at the Secretariat reviews applications; prepares an assessment report & ranking to award business planning.

**Investment Council** reviews Accelerator business plans to make de-risking grant (financial + technical assistance).

External investors assess enterprises and make investments via Loans, Equity, Guarantees etc.

**Technical Advisory Committee assessment:**
- Nutrition contribution
- Business viability
- Agricultural product feasibility
- Legal & ethical compliance

**Specialized technical support** to selected high impact Ag-Nut enterprises in business planning, capacity building, policy support.

**De-risking grant and external investor interface.**
Agriculture and nutrition complementing GAIN's other initiatives

**Synergies**

- Better inputs for large scale food fortification
- Reduced fortificant levels and costs
- Local procurement of nutritious foods for school feeding
- More nutritious, locally sourced ingredients
- Innovative delivery channels through Agriculture’s value chain
- Income generation opportunities for undernourished poor farmers

**Large-scale food fortification**

Interventions to increase access to adequately fortified staple foods and condiments through sustainable methods.

**Multinutrient supplements**

Interventions to improve micro-nutrient deficiencies among young children and other vulnerable groups.

**Nutritious foods for mothers and children**

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