

# Agricultural Development Market Access Sub-initiative

## Soy Links in Value Chain

**Sherry-Lee Abrahams**

March 18, 2010

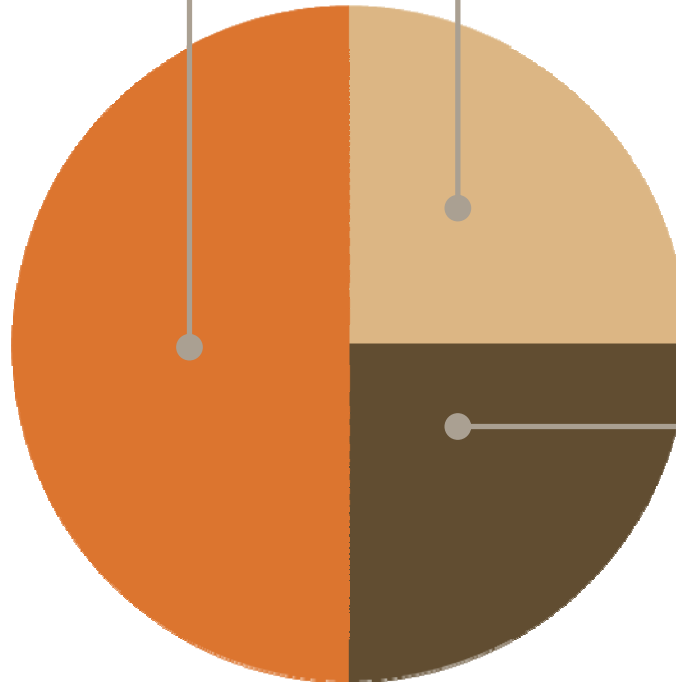
BILL & MELINDA  
GATES *foundation*

# Our Grantmaking Areas

**50%**  
Global Health Program

---

Discover, develop, and deliver life saving health solutions to people that need them most



**25%**  
Global Development Program

---

Increasing opportunities for people in developing countries to lift themselves out of hunger and poverty

**25%**  
United States Program

---

Greater opportunity for all Americans through the attainment of secondary and postsecondary education

# Our Areas of Focus

- Global Development makes grants in the following areas:

**Agricultural  
Development**

**Financial  
Services  
for the Poor**

**Water,  
Sanitation &  
Hygiene**

**Policy and  
Advocacy &  
Core Special  
Initiatives**

**Global Libraries  
Urban Poverty  
Emergency Relief**

# Agricultural Development is focused on the Full Range of Farmers' Needs

**We know there's no single, simple solution. We take a comprehensive approach, from seed to sale.**

## 1. Science & Technology

## 2. Farmer Productivity

## 3. Market Access

- Research and development on crop improvement issues

- Quality seeds
- Irrigation
- Fertilizer
- Education and training

- Access to information
- Access to new and existing markets
- Structured demand



## 4. Policy & Statistics

- Data and statistics
- Research and analysis
- Advocacy and policy change
- Learning and improvement

# Market Access

## Grantmaking Priorities:

### • Staple crops

- Value addition, reducing transaction costs (mobile phone funds transfers)

### • Structured demand

- Local sourcing for school feeding, other social programs; connecting w/ markets (Middle East, E. Europe)

### • Cash crops

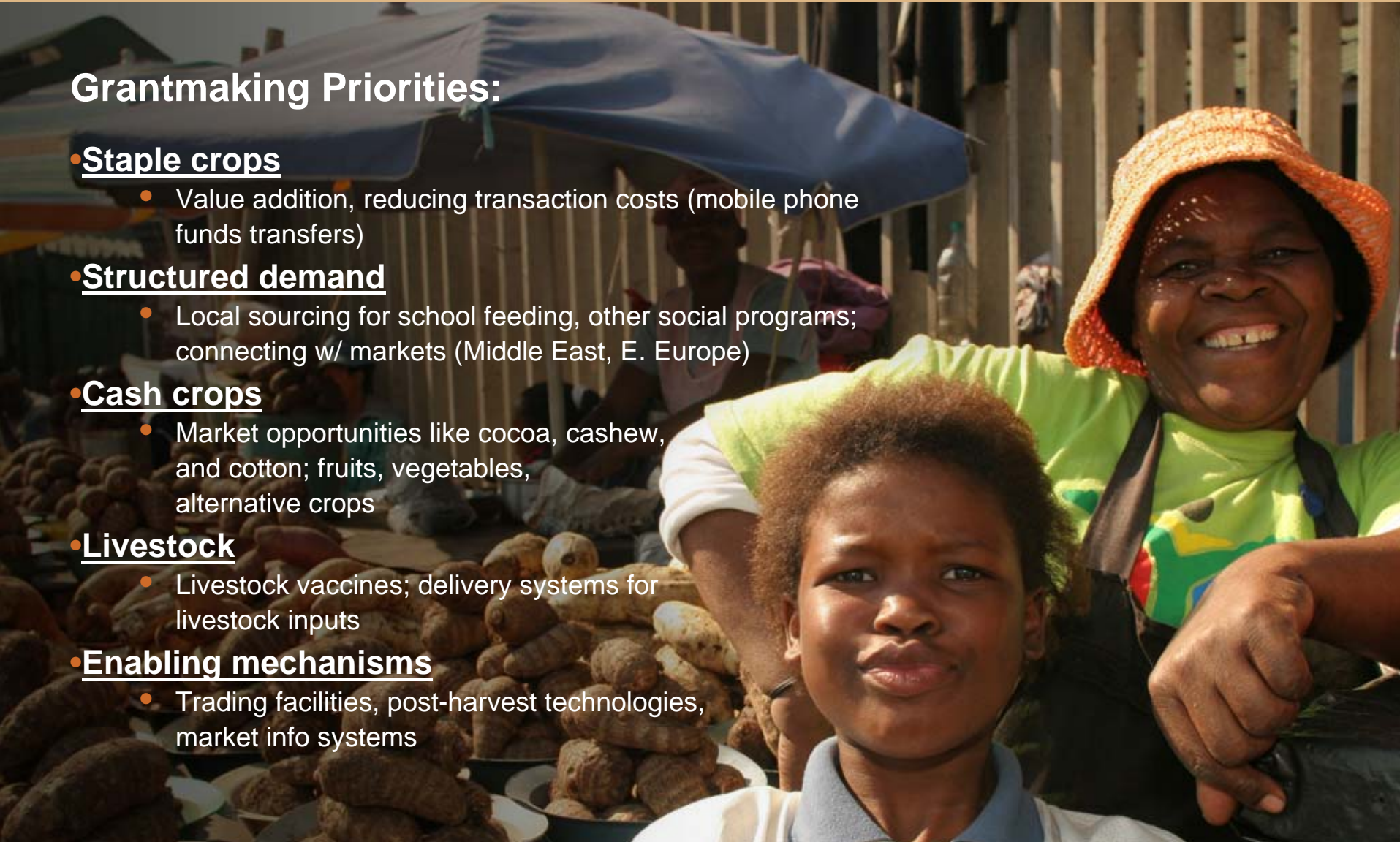
- Market opportunities like cocoa, cashew, and cotton; fruits, vegetables, alternative crops

### • Livestock

- Livestock vaccines; delivery systems for livestock inputs

### • Enabling mechanisms

- Trading facilities, post-harvest technologies, market info systems



# Market Access

## Representative Grants:

- **AGRA Markets (AGRA, \$15M)** – to develop a program to expand market access for small farmers in Sub-Saharan Africa
- **Purchase for Progress (WFP, \$66M)** – to help the WFP, the largest purchaser of staple crops in Sub-Saharan Africa, purchase food for its school feeding programs from local farmers
- **Capturing More Value from Cashews (GTZ, \$25M)** – to help 150,000 African cashew farmers improve their processing capabilities so they can fetch higher prices and increase their incomes by 50 percent
- **Developing Dairy Systems (Heifer International, \$43M)** – to help 179,000 dairy farmers in East Africa double their dairy related incomes through improved animal health, and better ways to chill, store, and sell their surplus on the formal market
- **Improving Storage to Increase Trade (Purdue University, \$11M)** - to prevent post-harvest loss of cowpeas and increase regional trade in West and Central Africa by developing a new non-chemical hermetic storage system

# Market Access Grants that are Targeting Nutrition

## Sample investments

### United Nations World Food Programme (REACH)

• REACH is a country-led approach **to scale up proven and effective interventions addressing child undernutrition** through the partnership and coordinated action of UN agencies, civil society, donors, and the private sector, under the leadership of national governments

#### **The goals of the project are to:**

- Expand the REACH toolkit of effective nutrition interventions to include agriculture and smallholder farmer procurement linkages
- Facilitate better understanding and working relationships between nutrition and agriculture communities at the international, regional and country levels

### Imperial College Partnership for Child Development

• This grant seeks to improve the speed and quality of the implementation of sustainable home-grown school feeding programs throughout the world, with primary focus on Sub-Saharan Africa.

#### **The goals of the project are to:**

- Improve smallholder farmer income by linking smallholder farmers to demand for Home Grown School Feeding
- Improve nutritional status, nutrition quality and quantity amongst small holder farmer households
- Improve education, health and nutrition of school age children through sustainable and cost-effective school feeding programs

Our structured demand investments seek to

- Encourage local sourcing from smallholder farmers, improving marketing opportunities
- Support the development of internal sourcing and procurement models
- Train smallholder farmers in effective post harvest management practices
- Develop infrastructure networks that support smallholder procurement, and
- Strengthen processing and value addition in-country

# Case for soy: A vibrant SSA soy industry would increase smallholder incomes, but also drive growth in other priority areas

## Vibrant Soy industry



### Livestock

Expansion of the soy industry should facilitate expansion of the local livestock industry

- Soy is the most efficient protein crop for animal feed
- Processing feed locally will drive down costs

### Importance of livestock

- Helping smallholders meet this demand is a powerful way to help smallholders increase incomes, accumulate assets, smooth consumption and improve nutrition and on-farm productivity
- More broadly, livestock feed can shift the system by becoming a large demand sink to absorb increasing staple productivity



### Staple crops

Growth of the livestock and feed sectors will increase demand for grains /starches (e.g., maize, cassava)

- Animal feed production requires maize and/or other starches; expansion of the industry will lead to greater local demand for these crops
- Demand shift for staples to feed is the final step in the total transformation of grain markets

### Importance of staple crops:

- Staples are of primary importance to smallholder farmers:
  - Largest tonnage/hectares of production
  - Represent the biggest source of calories
  - Often make a meaningful source of household income

### Nutrition

**Soy can also provide a critical source of nutrition for farmers if it is adopted into local diets. It is a uniquely efficient source of protein and can be incorporated into many local foods (e.g., through a soy/maize blend). While adoption takes time, increased production should ultimately lead to increased consumption.**

# Soy is an emerging value chain in the Market Access portfolio and cuts across all our investment areas (staple foods; cash crops; structured demand)

*This is primarily because soybean presents a multidimensional value proposition for smallholder farmers:*

1. Income from soy produced as a cash crop, substituting imports in evolving local and growing international markets; and
2. Increased yields in both cash and food rotation crops, benefiting from soy's nitrogen fixation properties.

*We also see a strategic opportunity to leverage some of our R&D investments to build the soy value chain in SSA:*

## ICRISAT Tropical

### Legumes

- Identify farmer-preferred high-yielding soybean varieties for each focal region
- Develop soybean varieties with resistance to major diseases and insect pests for developing varieties with greater nitrogen fixation rates
- Develop soybean seed production and delivery strategy

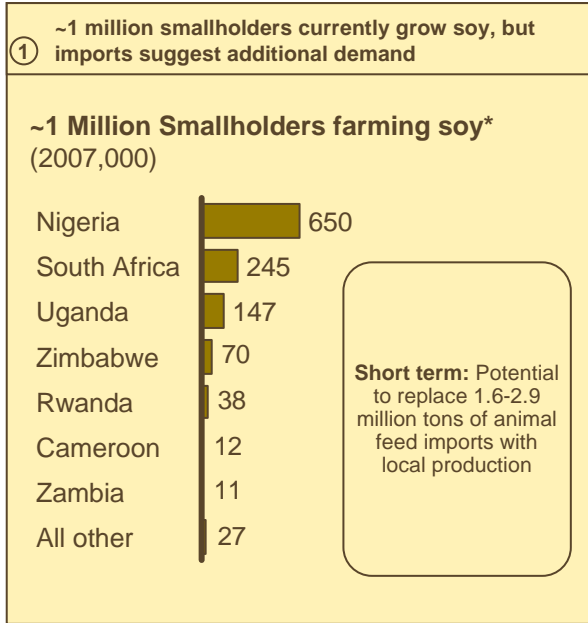
## Wageningen University

- Deliver legume and inoculants technologies to farmers throughout sub-Saharan Africa
- Engage with other legume seed production and marketing activities, farm input, commodity marketing and processing initiatives, and household and children's nutrition programs operating throughout the impact zones.

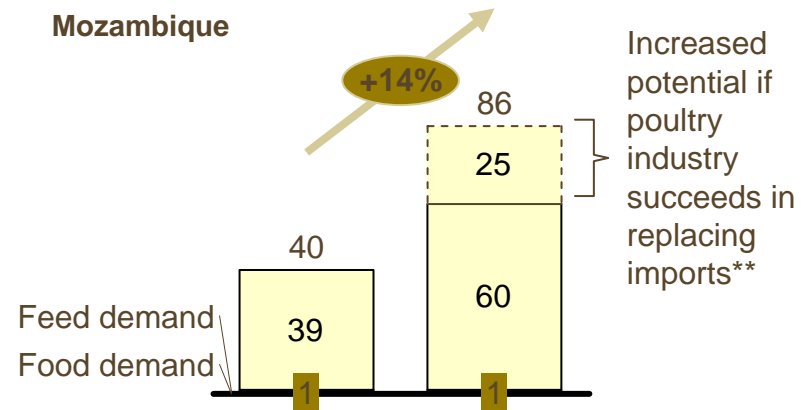
## AGRA Soil Health

- Increase fertilizer use by increasing the financial and physical access of small holders
- Achieve large scale adoption of locally effective Integrated Soil Fertility Management practices
- Create a national policy environment and supporting information system that develops institutional capacity and infrastructure and stimulates private sector investment in fertilizer distribution and soil fertility management.

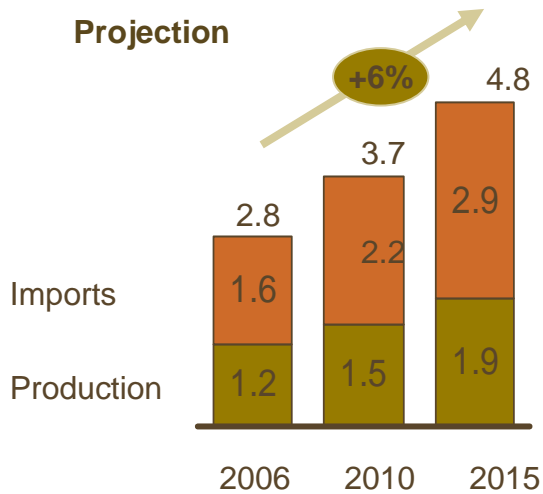
# Sub-Saharan Africa Soy Market Dynamics



**Annual soy demanded**  
Thousand tons  
**Mozambique**

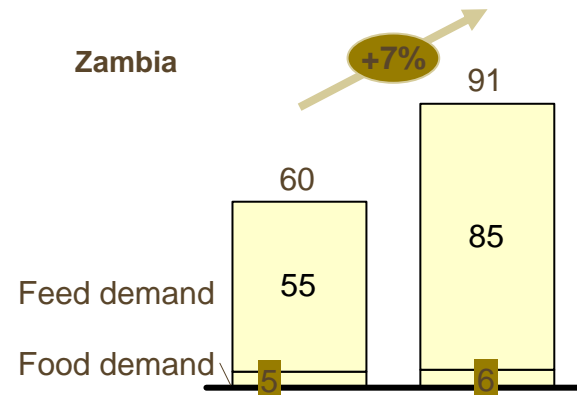


**Projection**



- 1-2 Million smallholders
- Economics feasible in the short term
- Potential to develop strategic partnerships around regional processing hubs

**Zambia**



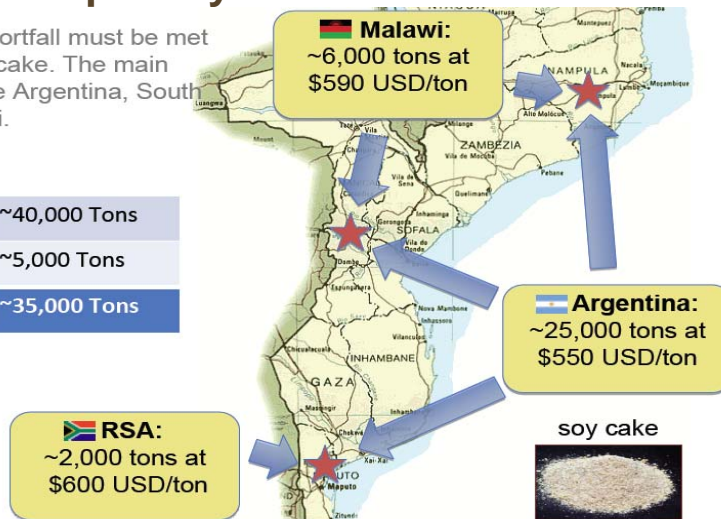
# We have a grant under review to TechnoServe to develop the soy value chain in Mozambique and Zambia

- Mozambique: 30,000 farmers
  - Strengthening local industry development
- Zambia: 7,000 smallholders
  - Stabilizing smallholder participation in the soy value chain
  - Project partners
    - Cargill
    - Zambian Agricultural Research Institute

## Mozambique soy market:

The production shortfall must be met by imports of soy cake. The main import sources are Argentina, South Africa, and Malawi.

Demand	~40,000 Tons
Supply	~5,000 Tons
Shortfall	~35,000 Tons



## Zambia target production areas:



***If approved, we will use this investment to develop a dialogue on soy markets across a number of regions (southern, eastern, and west Africa)***

# Thank You

BILL & MELINDA  
GATES *foundation*