

# Agricultural Development: Overview & Geospatial Projects

PRESENTED BY

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BILL & MELINDA  
GATES *foundation*

# Foundation Overview





# Our Core Belief

All lives have equal value



# Choosing Our Areas of Focus

**A few key questions have driven our decisions about where we focus:**

- **What issues affect the most people?**
- **What issues have been neglected?**
- **Where can we make the greatest impact?**



# Our Grantmaking Areas

## 50%

### Global Health Program

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

## 25%

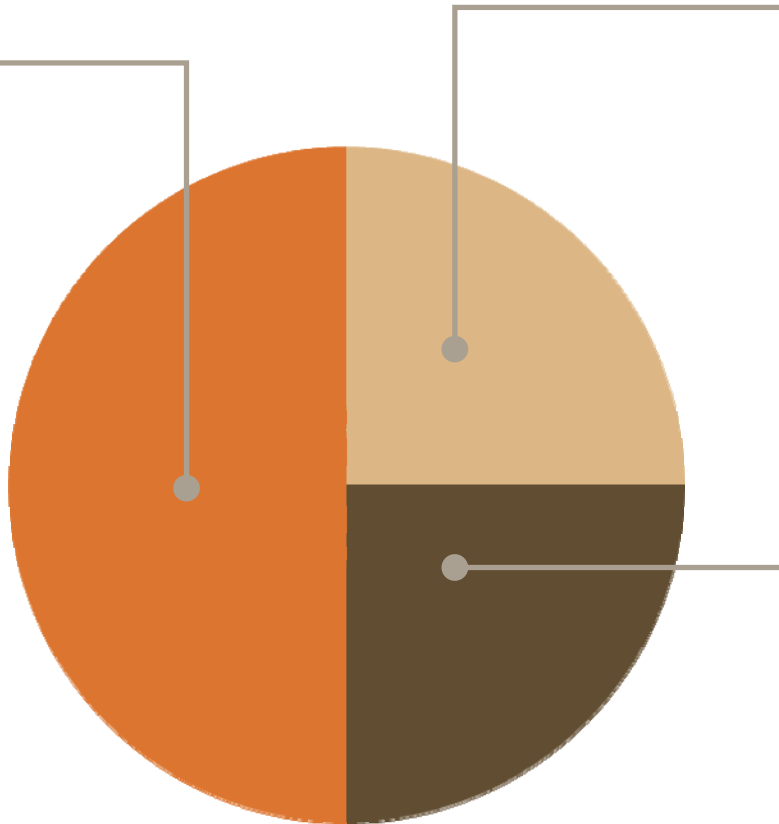
### Global Development Program

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



\$2.8 billion in grants in 2008; ~\$20 billion since inception



# Global Development





# Global Development – Mission

**Increase opportunities for people in developing countries to overcome hunger and poverty**

- More than 1 billion people live on less than \$1 a day
- Nearly 1 billion suffer chronic hunger
- We believe that solutions are within reach—  
and that progress is possible on a large  
scale, even in very poor countries



# Our Areas of Focus

Global Development makes grants in the following areas:

## Agricultural Development

Science & Technology  
Farmer Productivity  
Market Access  
Policy & Statistics

## Financial Services for the Poor

## Special Initiatives

Water, Sanitation & Hygiene  
Global Libraries  
Urban Poverty  
Emergency Relief

## Policy & Advocacy



# Agricultural Development



# Our Agricultural Vision

**Agricultural development is a powerful, sustainable answer to hunger and poverty.**

**Our goal is to provide hundreds of millions of small farmers with tools and opportunities to boost their yields, increase their incomes, and build better lives.**

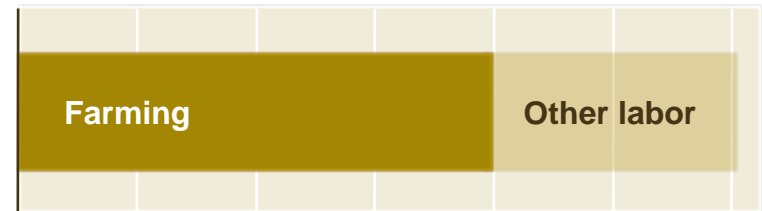


# Why Agricultural Development?

## Agriculture is key to reducing hunger and poverty

- Most people living on \$1 a day rely on agriculture for food and income
- In Sub-Saharan Africa, farming accounts for 2/3 of employment and 1/3 of GDP

### Employment in Sub-Saharan Africa



### GDP in Sub-Saharan Africa

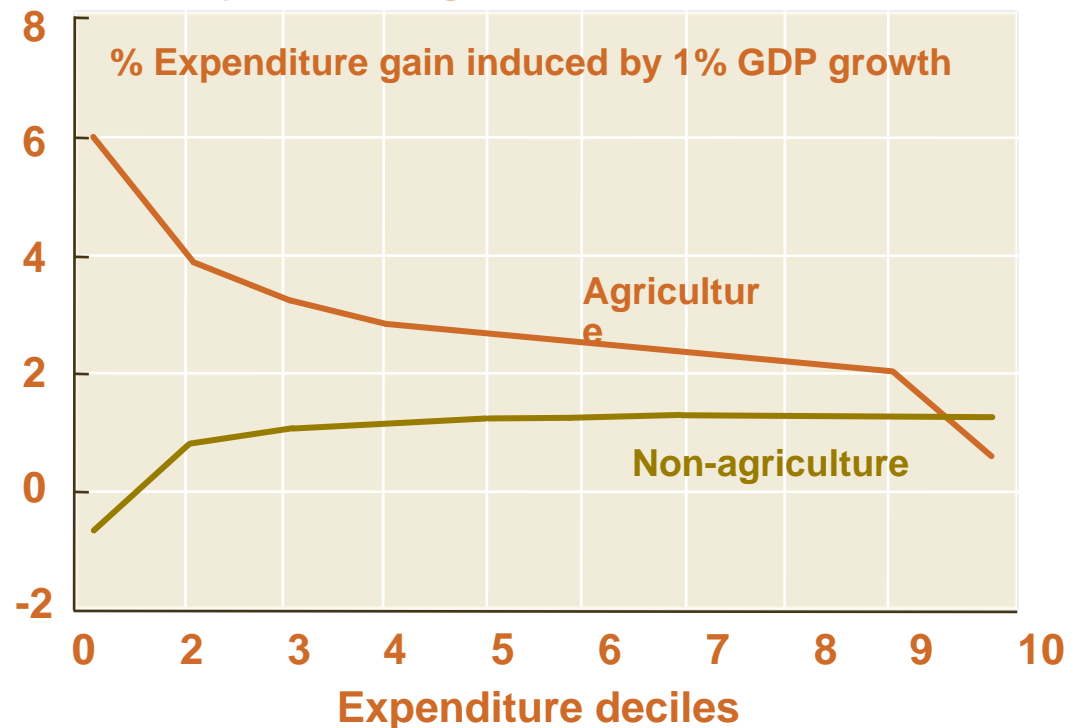




# The Transformative Power of Agriculture

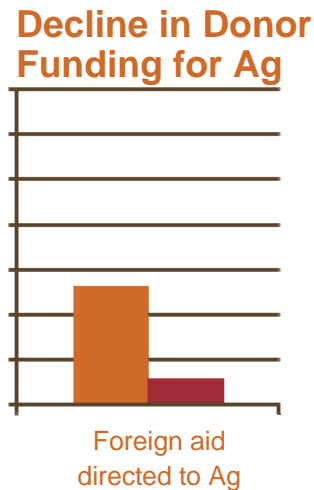
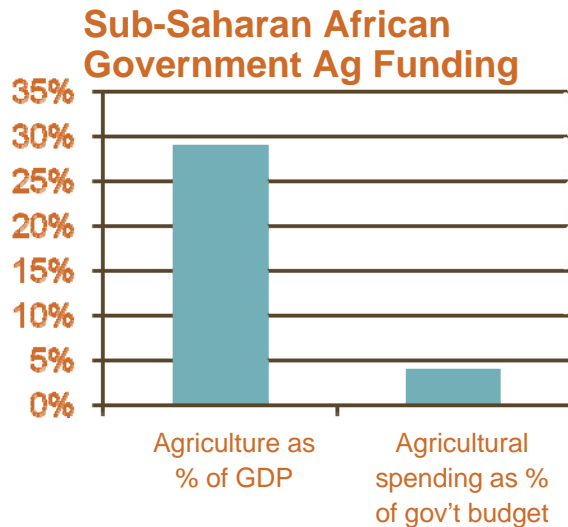
- Agriculture growth is 2–4 times more effective for the poor than non-agricultural growth
- Almost no country has managed a rapid rise out of hunger and poverty without increasing its agricultural productivity
- Reducing hunger and poverty on a large scale starts with improving agricultural development

**For the poor, agriculture has special poverty-reducing benefits.**



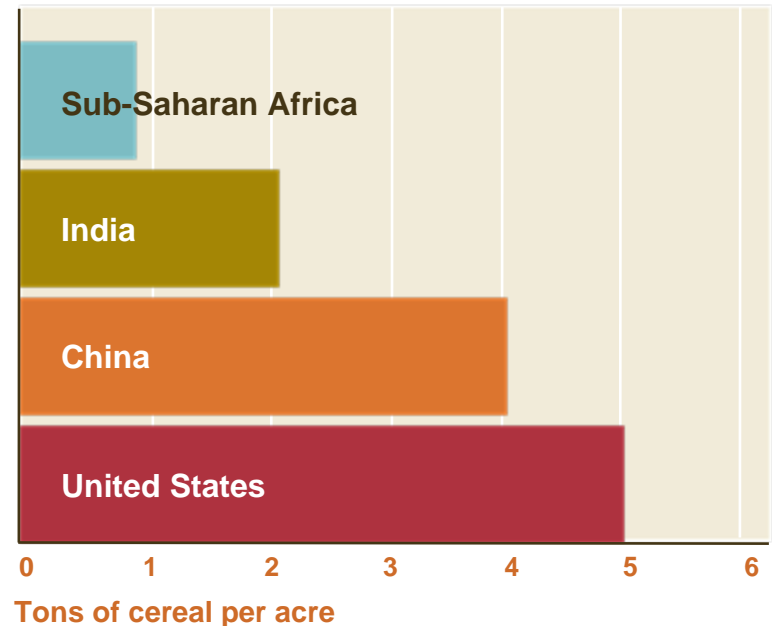
# Agriculture's Impact Ignored

Despite its importance, agriculture has been neglected over the last several decades by both developing and donor countries—especially in Sub-Saharan Africa



■ 1985 ■ 2006

**Average yield for a farmer in:**



# Our Approach

**Our work is guided by a few core principles:**

- **Put small farmers—most of whom are women—at the center of our efforts**
- **Focus on geographies of greatest need (SSA and SA)**
- **Focus relentlessly on impact (income, underweight children, food consumption)**
- **Work with partners**
- **Work across the full agricultural value chain (Science, Production, Markets, Policy)**



# Focus on Small Farmers

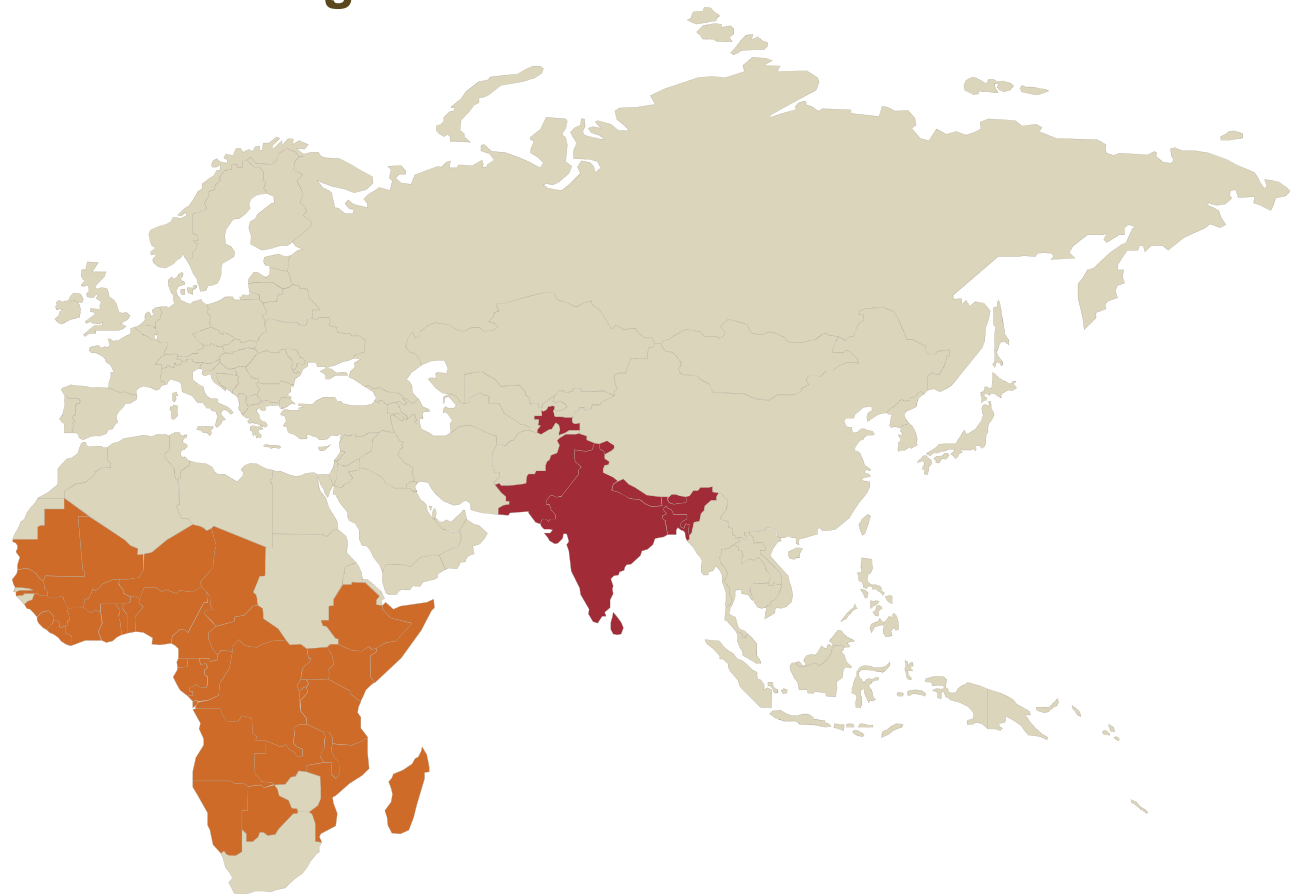
**Small farmers are at the center of our efforts:**

- **Majority of world's poor are small farmers (3/4 or those living on \$1 or less a day live in rural areas and rely on agriculture for food or income)**
- **Focus on farmers living on less than 2 hectares**
- **Gender impact strategy ensures we take the needs and role of women into account**
- **Listen to and involve farmers in our work**



# Channel Support to Critical Regions

**We focus on sub-Saharan Africa and South Asia, where the need and opportunities are the greatest.**



## Legend

- Sub-Saharan Africa
- South Asia

# Focus on Impact

**We define success in three ways:**

- Increased farm household incomes
- Reduced proportion of underweight children
- Quality and quantity of people's diets

**We measure our impact rigorously, and adjust our approach accordingly.**





# Support 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

- Research and development on crop improvement issues



## 2. Farmer Productivity

- Quality seeds
- Irrigation
- Fertilizer
- Education and training



## 3. Market Access

- 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

# Build Strong Partnerships

**We're inspired by the work of others,  
and know we can't succeed on our own.  
We work with a wide range of partners:**

- From public, private and nonprofit sectors
- From developing and developed countries

**Our largest partner (co-funded with Rockefeller)  
is the Alliance for a Green Revolution in Africa.  
AGRA is an African-led organization working to  
revitalize agriculture on the continent.**

**Other partners include:**



# Example Grants

- **Living Standards Measurement Study (World Bank, \$18.9 M)** – to support nationally representative household survey panels with detailed agricultural modules in seven sub-Saharan African countries
- **Water Efficient Maize for Africa (AATF, \$42M)** – To develop drought-tolerant maize for small farmers in Africa
- **HarvestPlus (IFPRI - \$45M)** – to reduce micronutrient deficiencies in developing countries by breeding higher levels of essential micronutrients into staple crops
- **Micro-irrigation in Tanzania (KickStart, \$6M)** - to develop improved small-scale pump technologies, expand nationally the market distribution network for pumps, and monitor the impact on smallholder farmers in Tanzania
- **Mentoring African Women Scientists (AWARD, \$13M)** – to train 360 African women scientists, and to create a mentor network to ensure they successfully transition into agricultural positions
- **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



# A Drop in the Bucket

**Our resources, while significant, pale in comparison to the need.  
Partnerships and advocacy are critical to success.**

**Global agricultural spending  
for sub-Saharan Africa:**

**~\$9B\***

**Our agricultural grantmaking  
commitments in 2008:**

**\$445M**

**~5% of total Ag spending in  
SSA**

\* Latest figures available are 2006.

# Geospatial Investments in Agriculture

## AgCommons

- Geospatial technology platform combined with information & services targeted at improving the lives of small farmers in Africa
- Coordinated by BioVersity (CGIAR); Steering committee with representation from public sector, private sector, NGOs, FAO; African organizations; (Kate Lance, NASA)

## HarvestChoice

- Development of a state of the art model integrating geospatial data on agricultural production, market & trade information, and human welfare; data and models to inform investments and decision-making
- Coordinated by IFPRI in partnership with University of Minnesota.

# Geospatial Investments in Agriculture

## **Remote Sensing for Ag Statistics**

- Research Project: Review past, current and future projects that utilize remote sensing for the production of agricultural statistics in sub-Saharan Africa; understand successes, challenges, learnings, and opportunities; (RCMRD, Kass Green)
- Possible future project to answer open questions and demonstrate proof of concept for cost-effective and sustainable application of RS to ag statistics in SSA

## **Portfolio mapping tool**

- A tool that enables increased impact by visualizing the spatial relationships across development projects and other contextual data
- Initially designed as tool for Gates Foundation grantees and partners; possibility to expand participation after initial development.
- Development by CH2MHill, Inc.



Thank you

