

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:

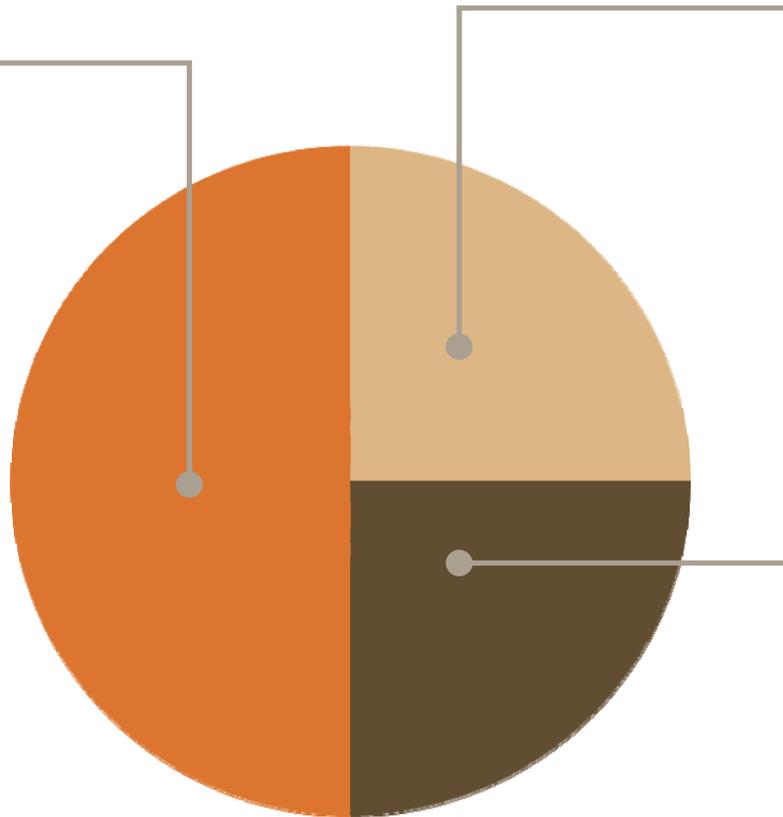
- **What issues affect the most people?**
- **What issues have been neglected?**
- **Where can we make the greatest impact?**



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.

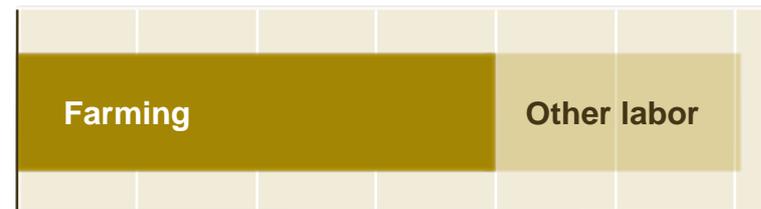


Why Agricultural Development?

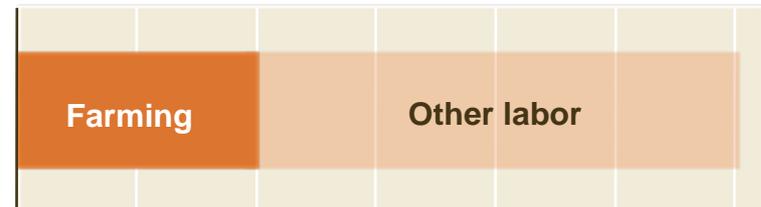
Agriculture is key to reducing hunger and poverty

- 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



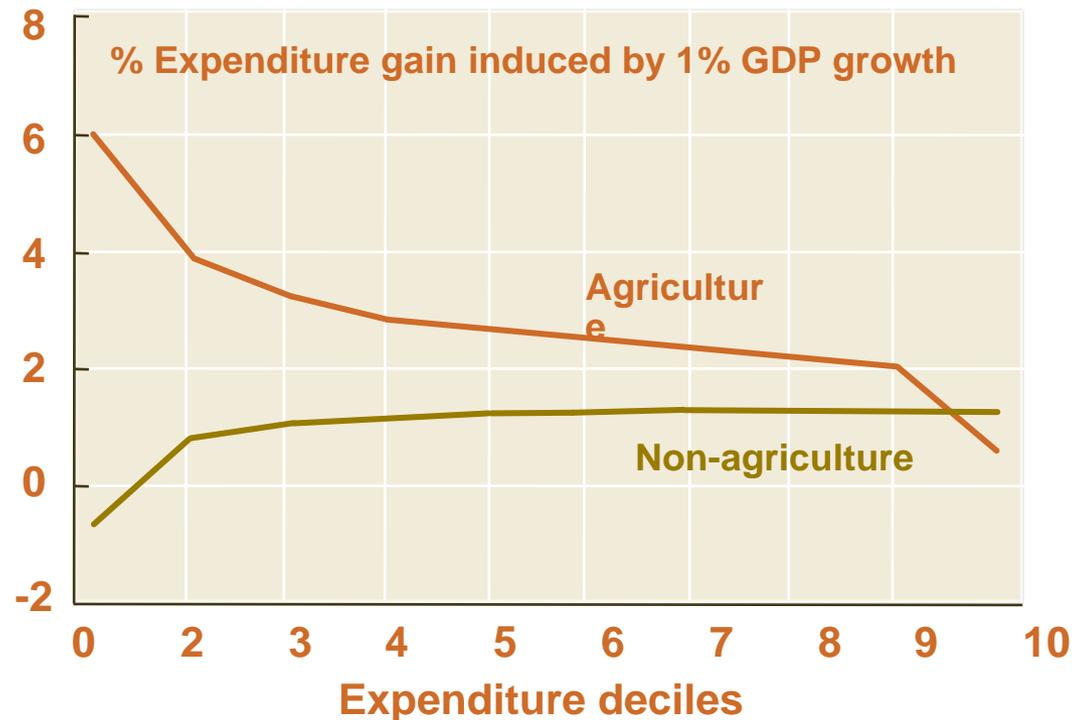
GDP in Sub-Saharan Africa



The Transformative Power of Agriculture

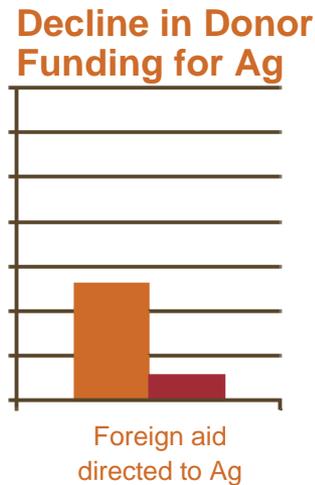
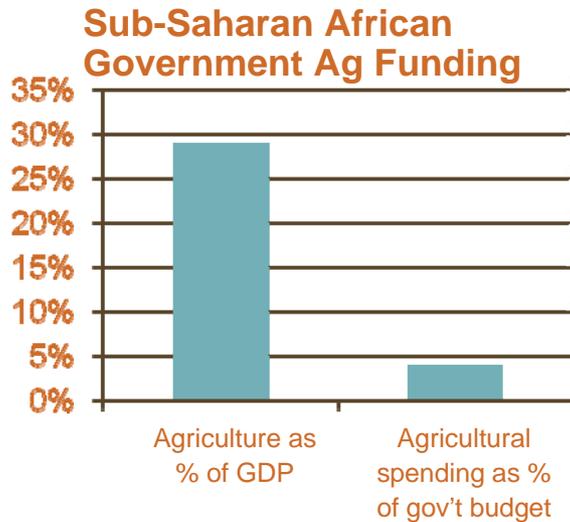
- Agriculture growth is 2–4 times more effective for the poor than non-agricultural growth
- Almost no country has managed a rapid rise out of hunger and poverty without increasing its agricultural productivity
- Reducing hunger and poverty on a large scale starts with improving agricultural development

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



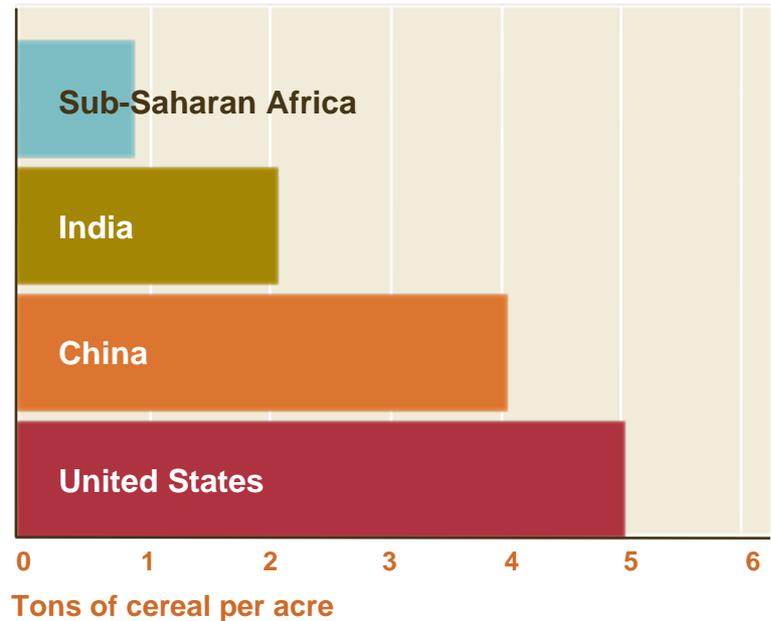
Agriculture's Impact Ignored

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

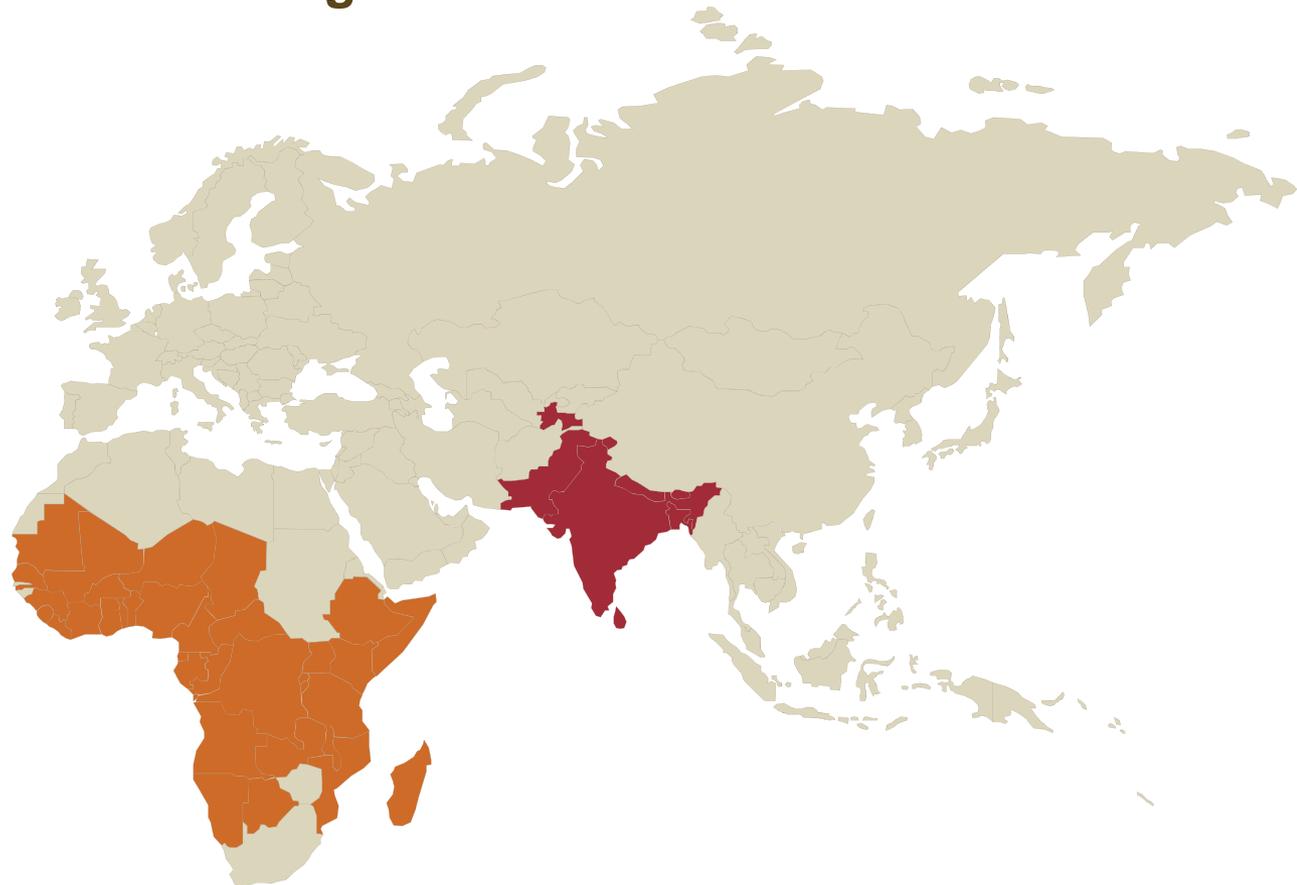
Small farmers are at the center of our efforts:

- **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.



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

