

Windows into the Future:

Views from the Agricultural Development Program of the B&M Gates Foundation

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BILL & MELINDA
GATES *foundation*

Outline

- **Overview of the current strategy of the Agricultural Development Team**
- **Drivers of change in agriculture and food systems the Team is discussing for the strategy refresh**
- **Questions for the strategy refresh of the Agricultural Development Team**

Our values

All lives—no matter where they are being led—have equal value.

To whom much has been given, much is expected.



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?**

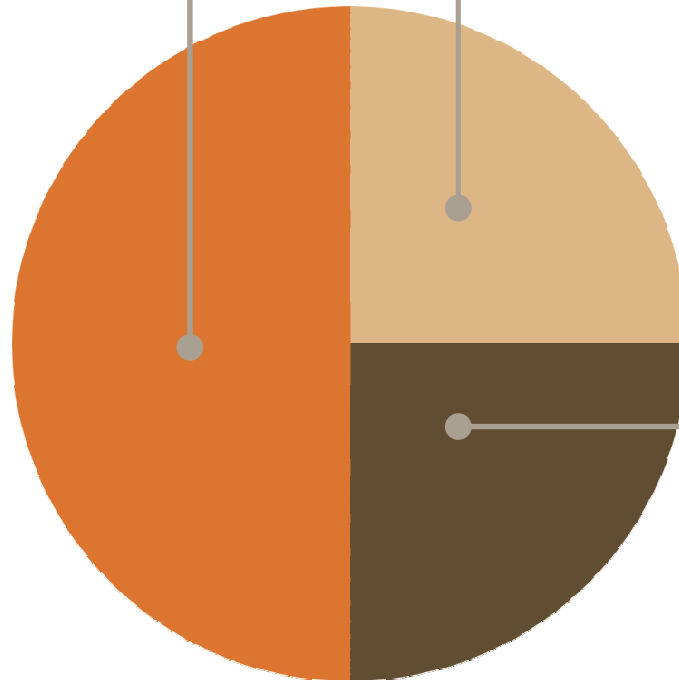


Our Grantmaking Areas

50%
Global Health Program

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

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



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**

**Policy &
Advocacy**

**Special
Initiatives**

**Water, Sanitation & Hygiene
Global Libraries
Urban Poverty
Emergency Relief**

Grantmaking Principles

There are many ways to address hunger and poverty. We've focused on a limited set of areas with the potential to be:

- ***Effective*** in addressing a problem that has received insufficient attention and has potential for a significant breakthrough
- ***Scalable*** so solutions can ultimately reach many of the people who need them most; and
- ***Sustainable*** through long-term operations and financing

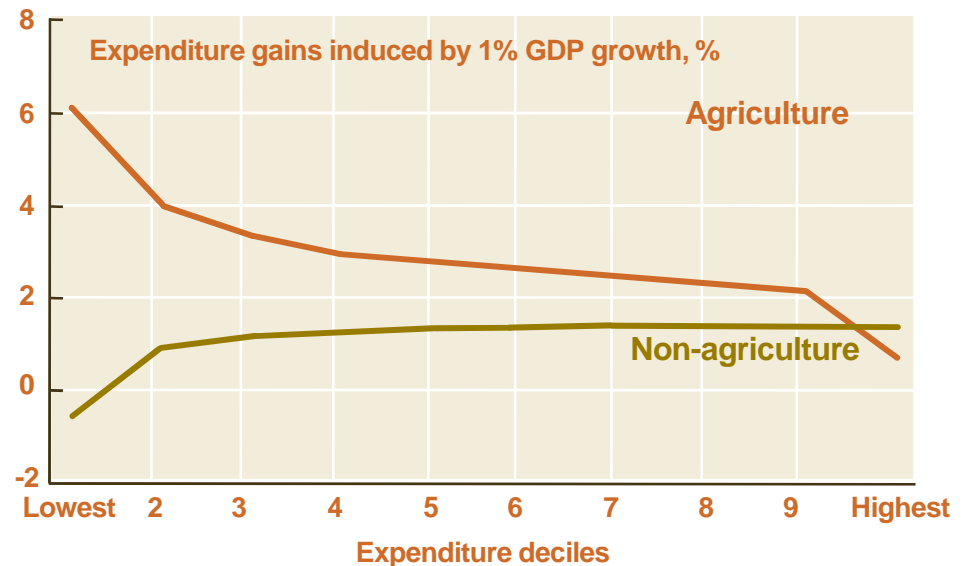
Agricultural Development



The Transformative Power of Agriculture

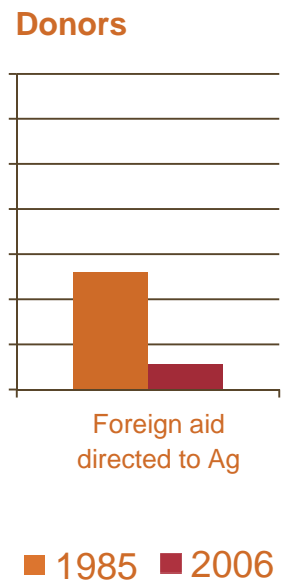
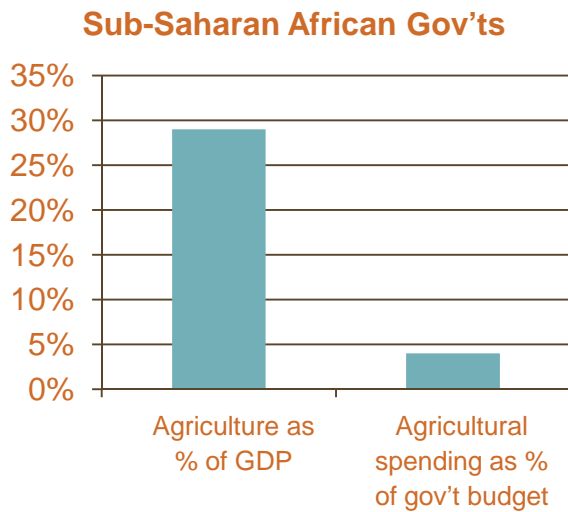
- Agriculture growth is 2–4 times more effective for the poor than non-agricultural growth
- Almost no country has managed a rapid rise out of hunger and poverty without increasing its agricultural productivity
- Reducing hunger and poverty on a large scale starts with improving agricultural development

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

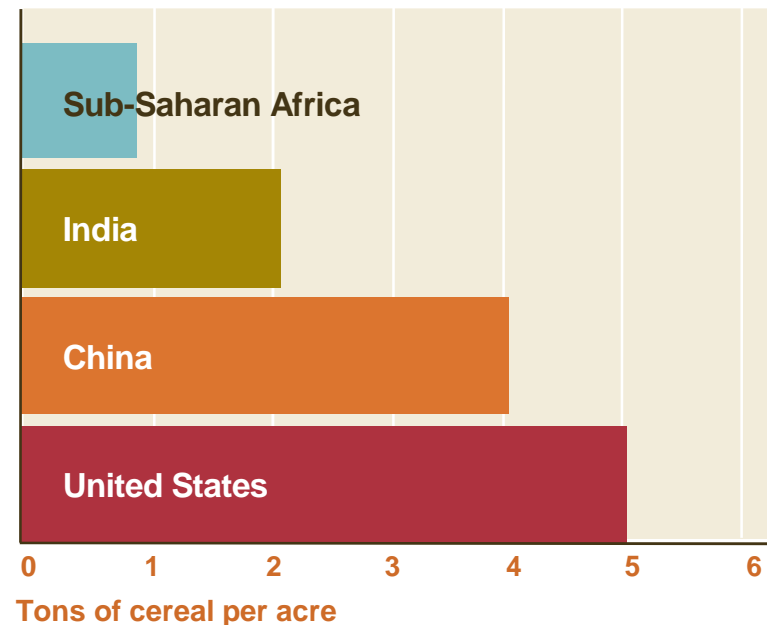


Agriculture's Impact Ignored

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



Average yield for a farmer in:



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.



Our Approach

Our work is guided by a few core principles:

- **Put small scale farmers—most of whom are women—at the center of our efforts**
- **Focus on areas of greatest need**
- **Focus relentlessly on results**
- **Build strong partnerships**
- **Work across the full agricultural value chain**

Channel Support to Critical Regions

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



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

Science and Technology

Our Strategy:

- Increase productivity: Develop and distribute varieties that help farmers increase their yields and the efficiency of their use of inputs like water and fertilizer.
- Decrease farmer risk/volatility: Develop and distribute varieties that help farmers cope with droughts, floods, disease, and pests, as well as to help them with environmental adaptation
- Enabling improved nutrition: Support efforts to improve micronutrient availability in staple crops, and the diversity of crops farmers grow

Farmer Productivity

Our Strategy:

- **Improved Inputs**: Support projects that created improvements in seed systems, soil health, and water management that are needed for sustainable increases in small farmer productivity
- **Improved knowledge**: Support initiatives that expand small farmers' access to improved knowledge for decision making
- **Focus on women**: Ensure improved technologies are relevant and accessible to women who make up the majority of farmers in Africa



Market Access

Our Strategy:

- New models to develop and market crop and livestock products
- New partnerships with public and private sector actors to expand small farmers' access to new and existing markets, and to improve efficiencies in their marketing of goods
- New tools and technologies to improve quality, reduce transaction costs, and increase efficiency



Policy and Statistics

Our Strategy:

- **Improve the evidence base** that is necessary for better agricultural investment and policy decisions.
- **Support analysis, outreach and advocacy** for evidence-based decision-making.
- **Invest across the “policy wheel,”** including:
 - Data and statistics
 - Research and analysis
 - Advocacy and policy change
 - Policy implementation
 - Impact and learning



The future of small scale farmers in Africa ?

There is the need for

- **Meeting rising urban food demands**
- **Meeting food security targets**
- **Sustainable intensification of agricultural systems**
- **Increased the competitiveness of smallholder systems**

Need for programs and policies to help small scale farmers to

- **Boost productivity via new technologies and better knowledge management**
- **Diffuse risk of new technology adoption**
- **Meet food safety and quality standards**
- **Reduce transaction costs for entering national and international markets**
 - **Supply aggregation via farmers' cooperatives and other forms of business associations**
 - **Infrastructure creation to access markets**
- **Increase farmers' access to capital**

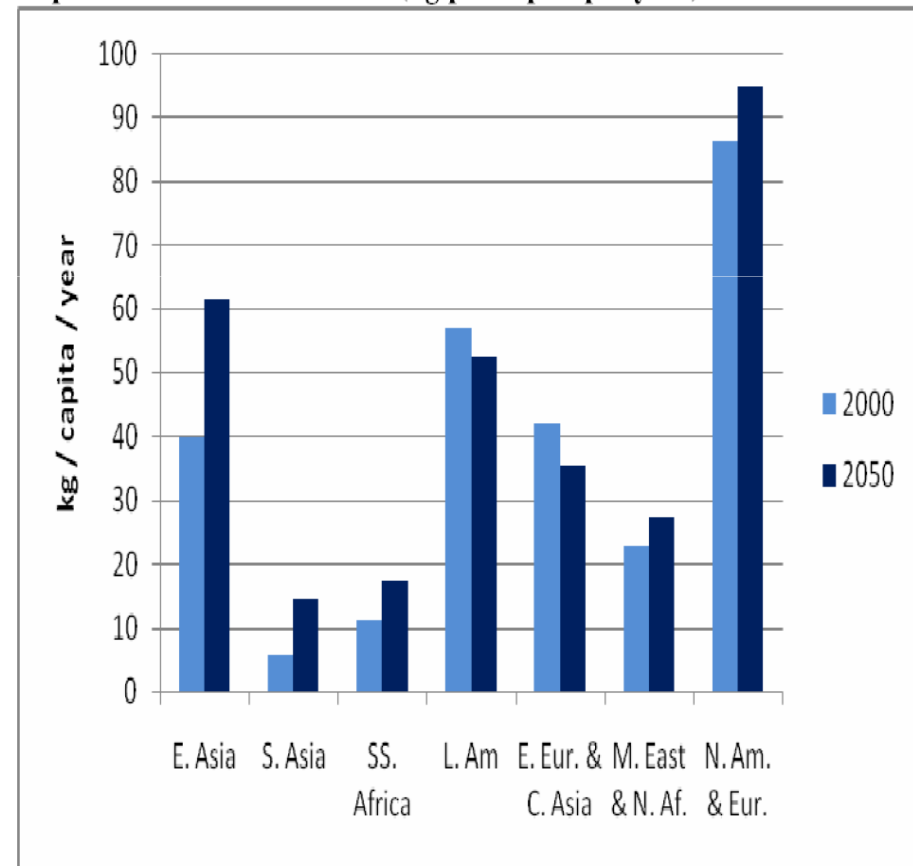
Grants that inform our strategy discussion

- **Harvest Choice (IFPRI)** – To support strategic investment choices in agricultural technology development using a state of the art model integrating geospatial data on agricultural production, market and trade information, and human welfare
- **Global Futures for Agriculture (IFPRI)** - To provide a significantly improved platform for integrated modeling of global agriculture with which international agricultural research centers, development agencies, and governments can assess the effects of technology investments, planning and policy decisions in agriculture.

Growth in Demand over the next 20 years

- Needs to be divided into demand for food and demand for feed for livestock
- Demand will increase in each region of the world, with America and Europe and East Asia leading
- Strong growth in demand for cereals in SSA, mainly for food
- Demand for feed stock is likely to increase strongly in East Asia/China → pull factor for SSA?

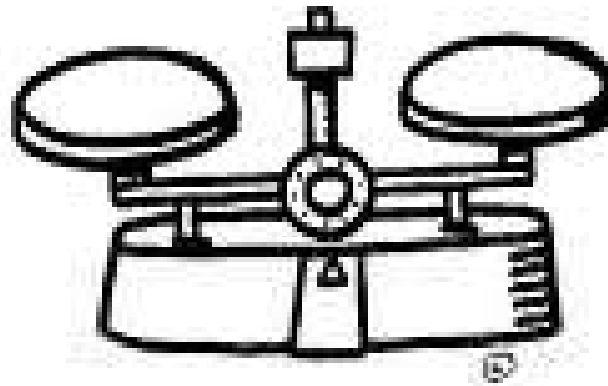
Per capita Meat Demand to 2050 (kg per capita per year)



How can the demand for more food be met?

Yield enhancements
& intensification

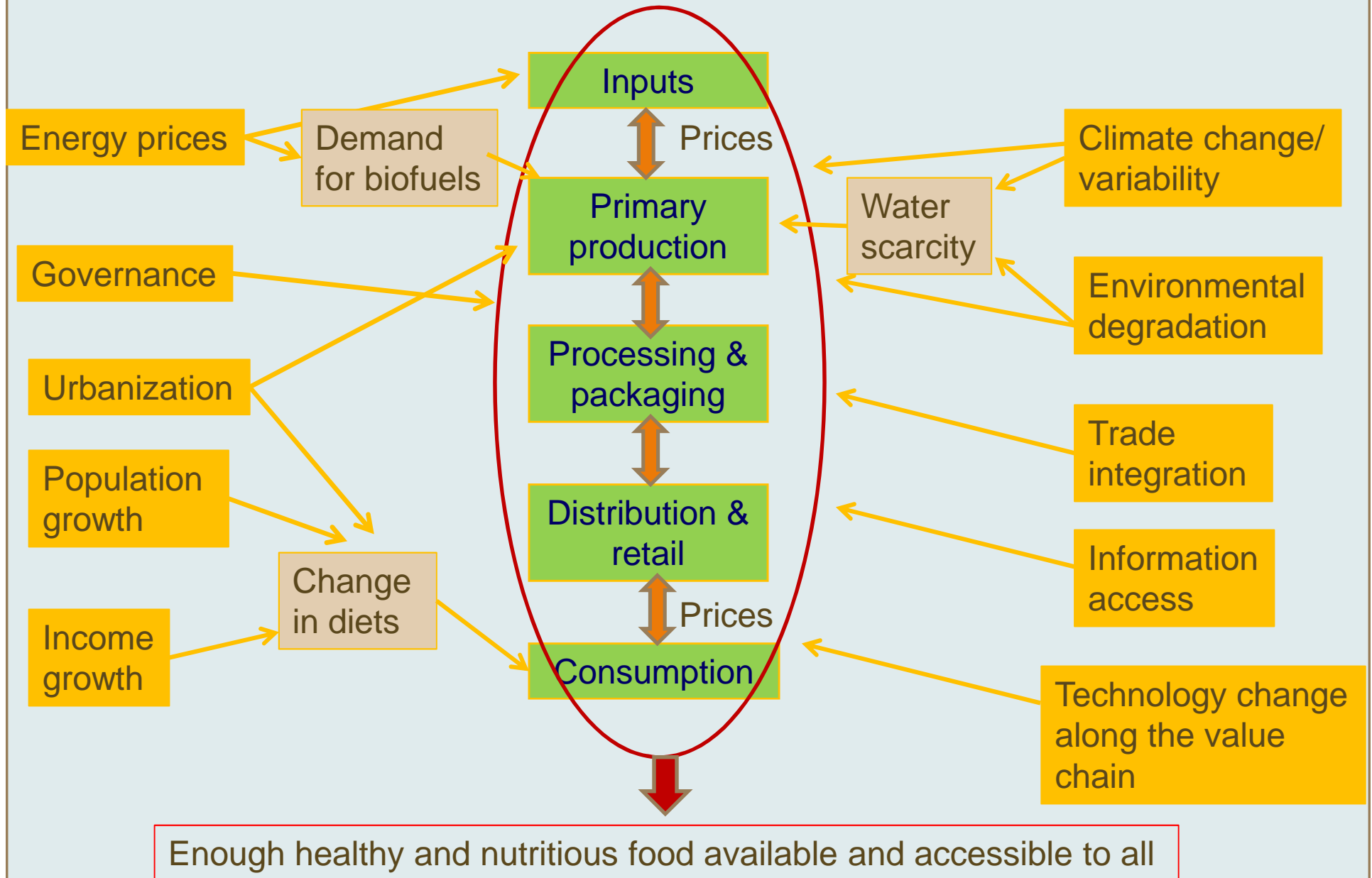
Land conversion



While it is assumed that 70% of food supply increase will be met by yield enhancement, it is estimated that an add. 120 mio ha of land will be converted to Ag over the next 30 years world wide.

Due to land abundance in SSA and low investments in Ag. R&D it is likely to see land conversion trends continue, while the intensification of agricultural land will be slower than in other parts of the world.

The food system and its drivers of change



Population growth, Income and Urbanization → Changing Diets

- **8 billion people expected in 2025 globally, mainly in developing countries;**
 - **In SSA: 770 mio → 2 bio in 2050; absolute number of rural people projected to grow until then as well;**
 - **84% of the additional people expected to live in urban areas;**
 - **Incomes expected to grow mainly in recently industrialized countries and East Asia,**
 - **BUT in SSA per capita growth rates only about 0.8 to 1.7% per year due to strong population growth**
- **changing diets towards more processed food and more demand for livestock products (by 2020 60% of meat & milk consumed in dev. countries)**

Improving intra-regional and international trade regimes in SSA

- **High food import dependency of the many least developed countries in Africa → revenues needed from other sectors to cover costs.**
- **Historically 90% of food produced within a country, only 10% imports to be sustainable in long run.**
- **It is projected that import dependency of many LDCs though will continue over the next 30 years.**
- **African governments need to remove some of the huge intra-regional trade barriers (due to infrastructure as well as institutional problems)**

Environmental Drivers

- **Climate change : In general, Africa will suffer from droughts and floods with greater frequency and intensity.**

Relatively certain that over the next 100 years:

- **Drier subtropical regions will warm more than moister tropics.**
 - **N and S Africa will become much hotter (up to 4°C) and drier (by up to 15% decrease in precipitation).**
 - **E Africa and parts of Central Africa average rainfall is likely to increase.**
 - **Sea levels will rise (~ 0.5 m), with serious consequences in West Africa and the Nile Delta.**
- **Competition for water use between agriculture, domestic and industrial use**
 - **Degradation of soils and biodiversity**

Technology as a transformative driver of change: Examples

- **Better access to information via cell phones and the internet**
 - **Better management of production risk better via better weather forecasting**
 - **Better management of price risk better via better access to price and market information**
 - **Better access to new agricultural technologies and practices**
- **New technologies to manage drought**
- **New technologies for animal production systems**

Some questions to address in the strategy refresh

- **Farmer segmentation: what are the different needs of small holders in different development domains?**
- **Delivery landscape: how to achieve long-term, sustainable technical change on the ground?**
- **Place based vs. value chain approaches**
- **Staple vs. cash crops**
- **Number of people to reach vs. tackling complicated problems in agricultural development**
- **Nutritional outcomes vs. income generation of agriculture**
- **Sustainable intensification**

Thank you

