Creative Models for the Future

Closing the Gap: Investment, Innovation, and Initiatives

June 3, 2014

Extreme Poverty and Agriculture

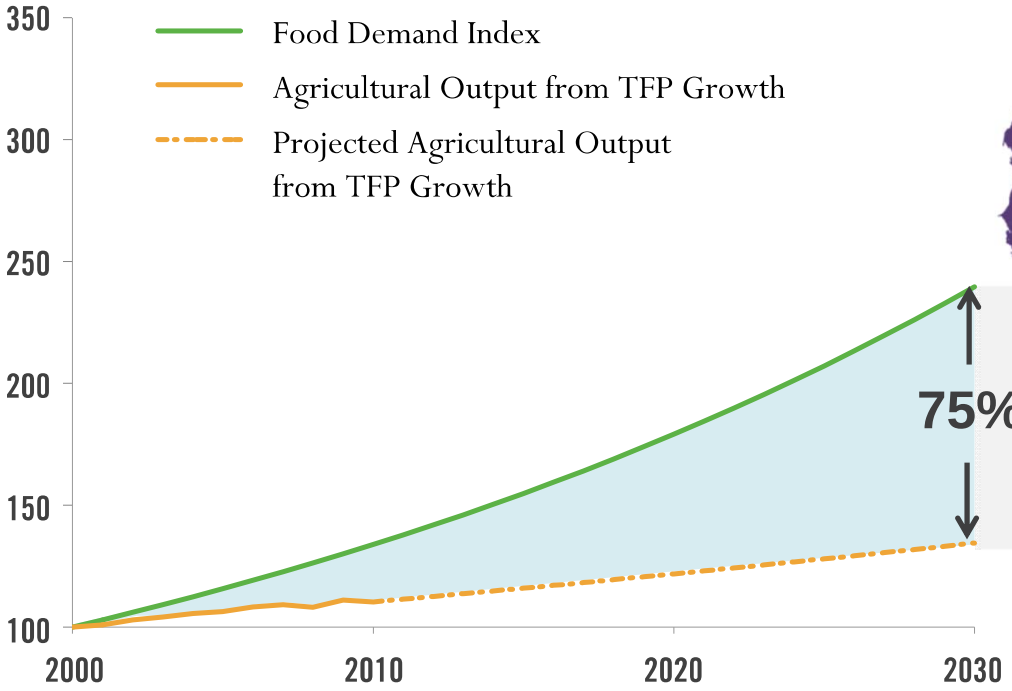
- Emerging focus on eradicating extreme poverty and ending hunger is placing greater emphasis on smallholder farmers
- Roughly 60% of the 2.6 billion people living on less than $2 a day depend on farming or farming-related activities
- Studies show that agriculture is two to three times as effective at reducing extreme poverty compared to other sectors

The Challenge

We aren't producing enough food to match **population growth** and our **rising standard of living** globally

As the population surpasses 9.6b people in 2050, ag output will need to double

The middle class is expected to grow from 50% to 70% of the population by 2050



Source: Global Harvest Initiative

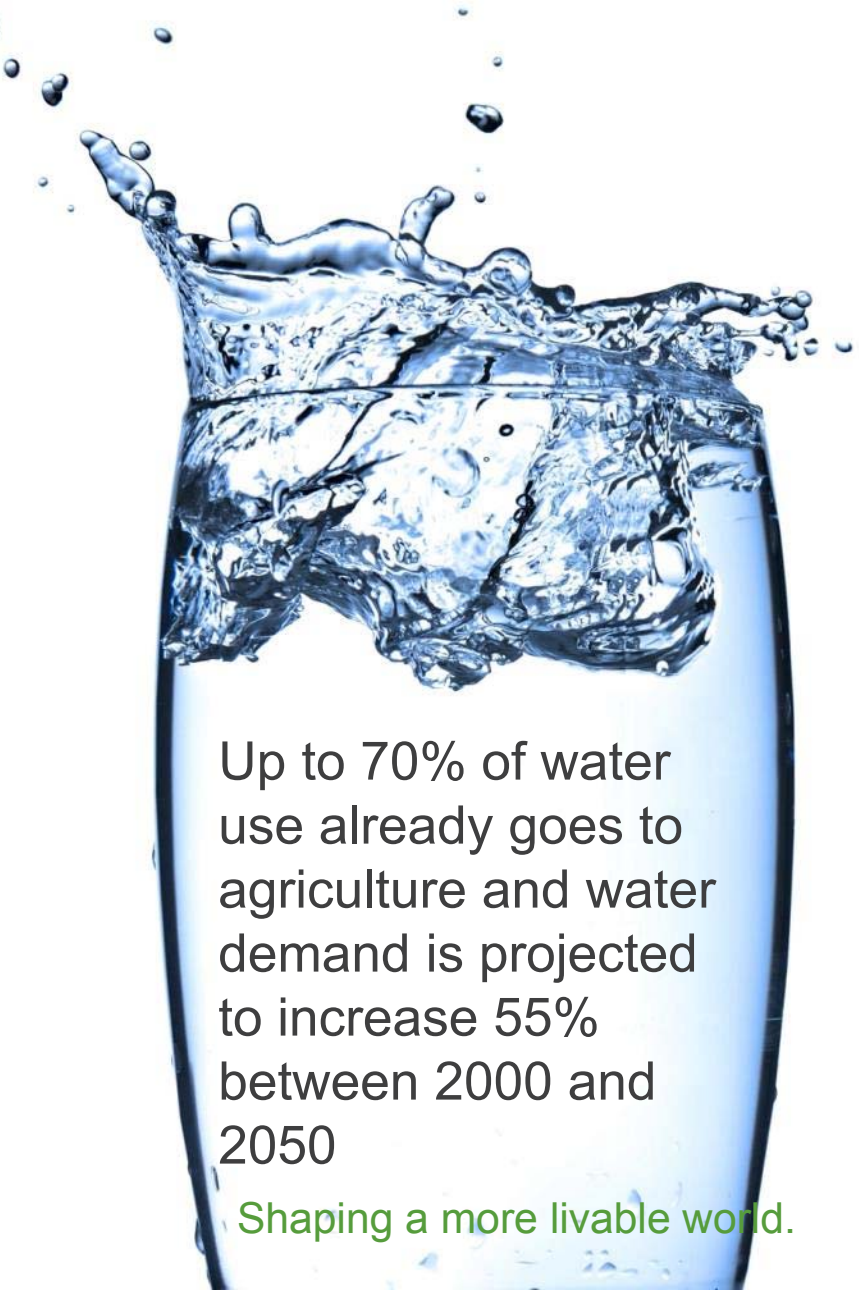
In sub-Saharan Africa, experts project a 75% gap between the projected food demand and agricultural output by 2030

The Challenge

Must also address other constraints like **power** and **water**

Access to electricity is cited as one of the biggest barriers to growth in the developing world.

Africa alone needs an estimated $600b in investment by 2030 to provide universal access to electricity.



Up to 70% of water use already goes to agriculture and water demand is projected to increase 55% between 2000 and 2050

The Challenge

4000
KG per hectare

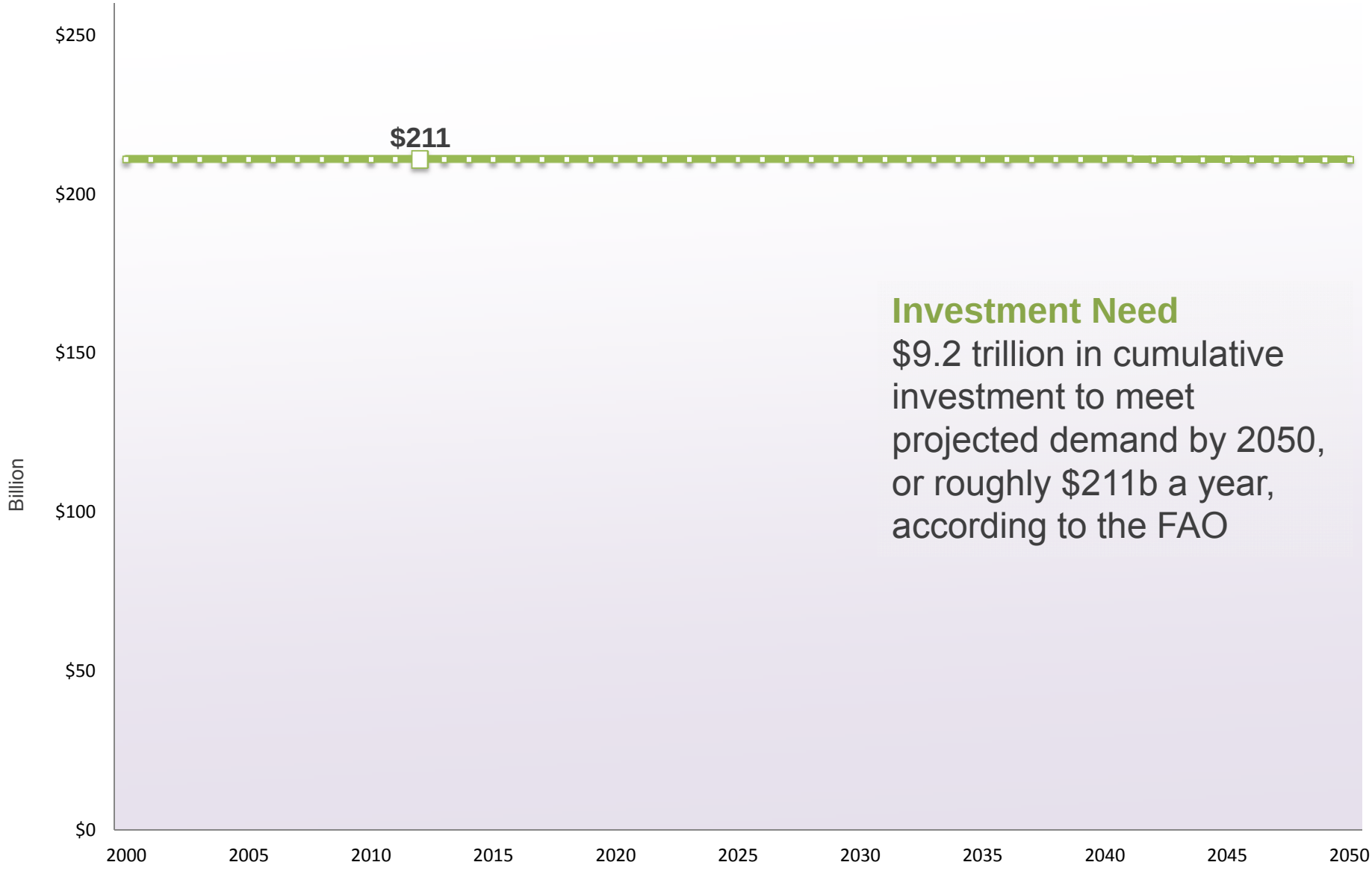
2400
KG per hectare

99% of farmers live in the developing world and produce only **60%** of the yields of developed country farmers

Source: GSMA mAgri

- Closing the gap requires significant new **investments** in infrastructure and replication and scaling of **innovations** in research and tech with catalytic support from donor **initiatives**.

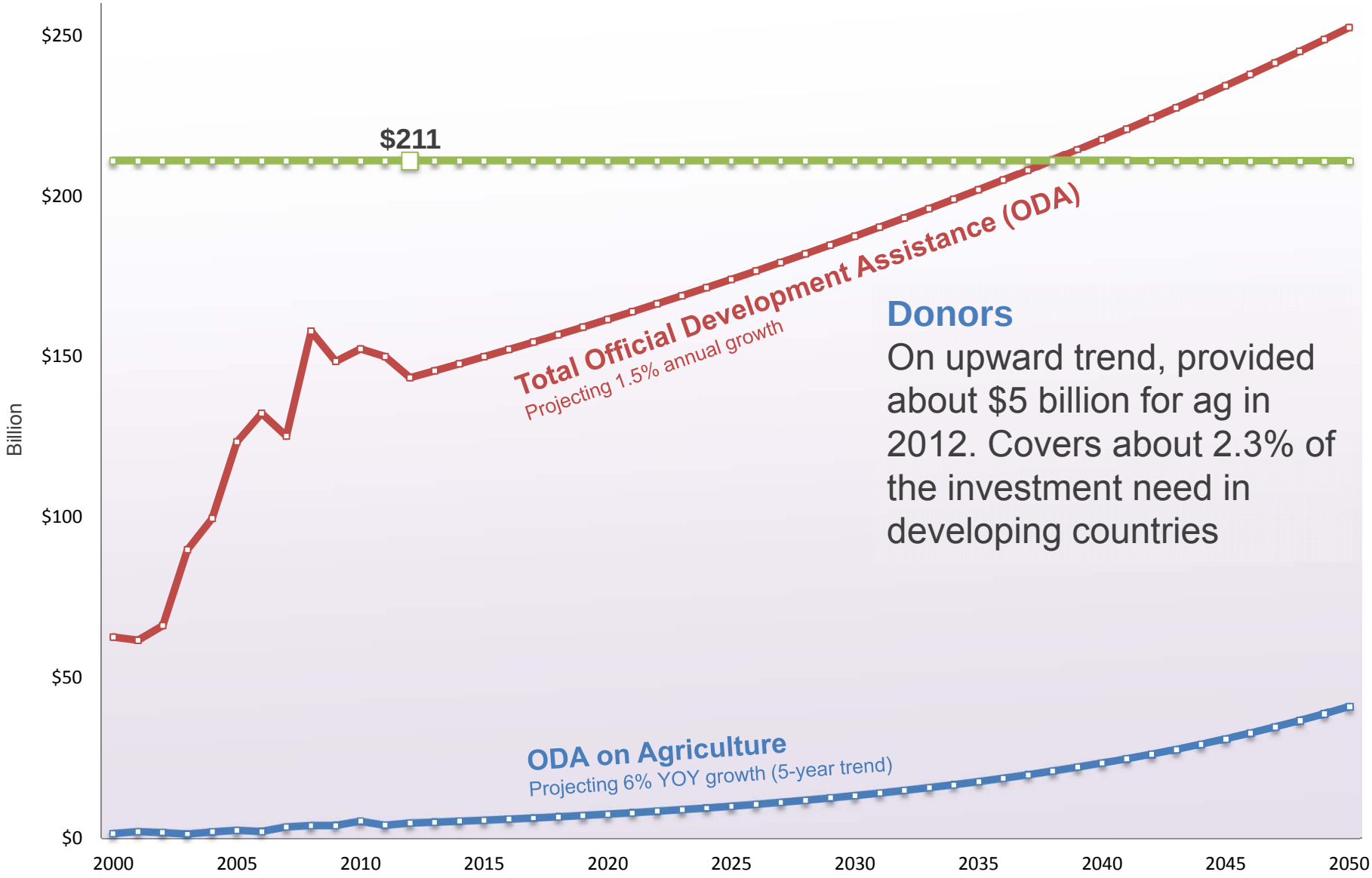
Closing the Gap: Investment



Investment Need

$9.2 trillion in cumulative investment to meet projected demand by 2050, or roughly $211b a year, according to the FAO

Closing the Gap: Investment



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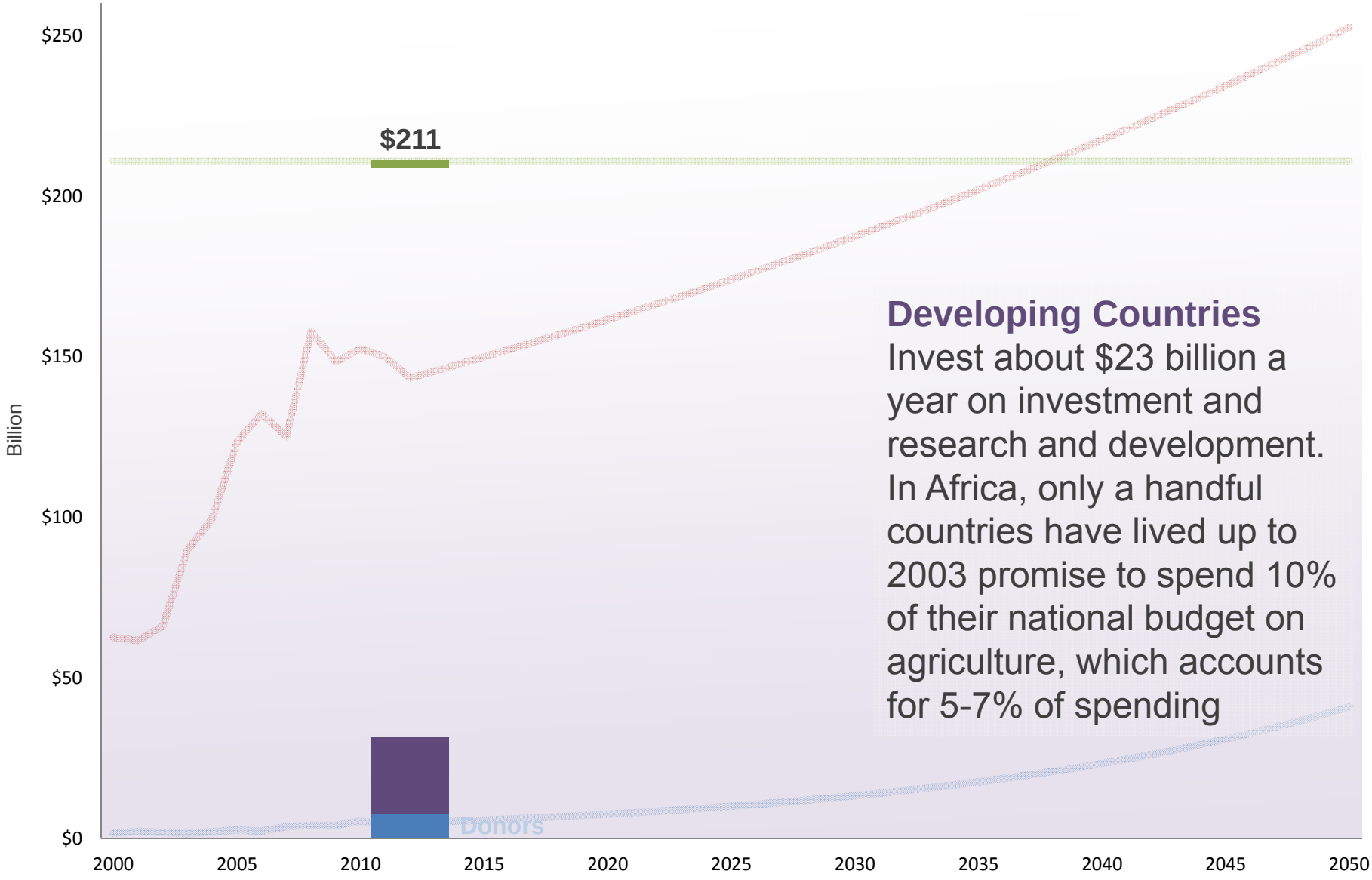

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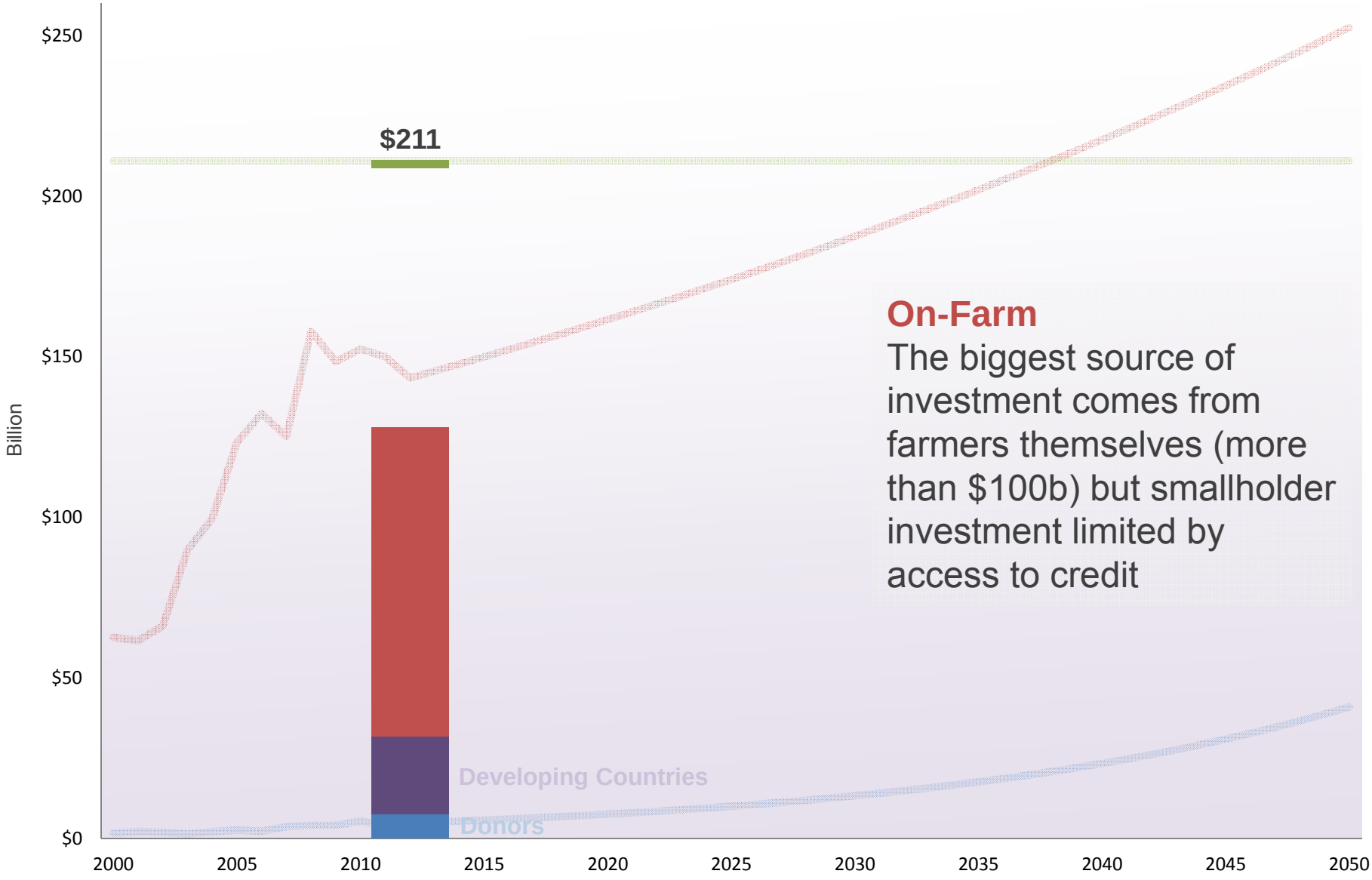

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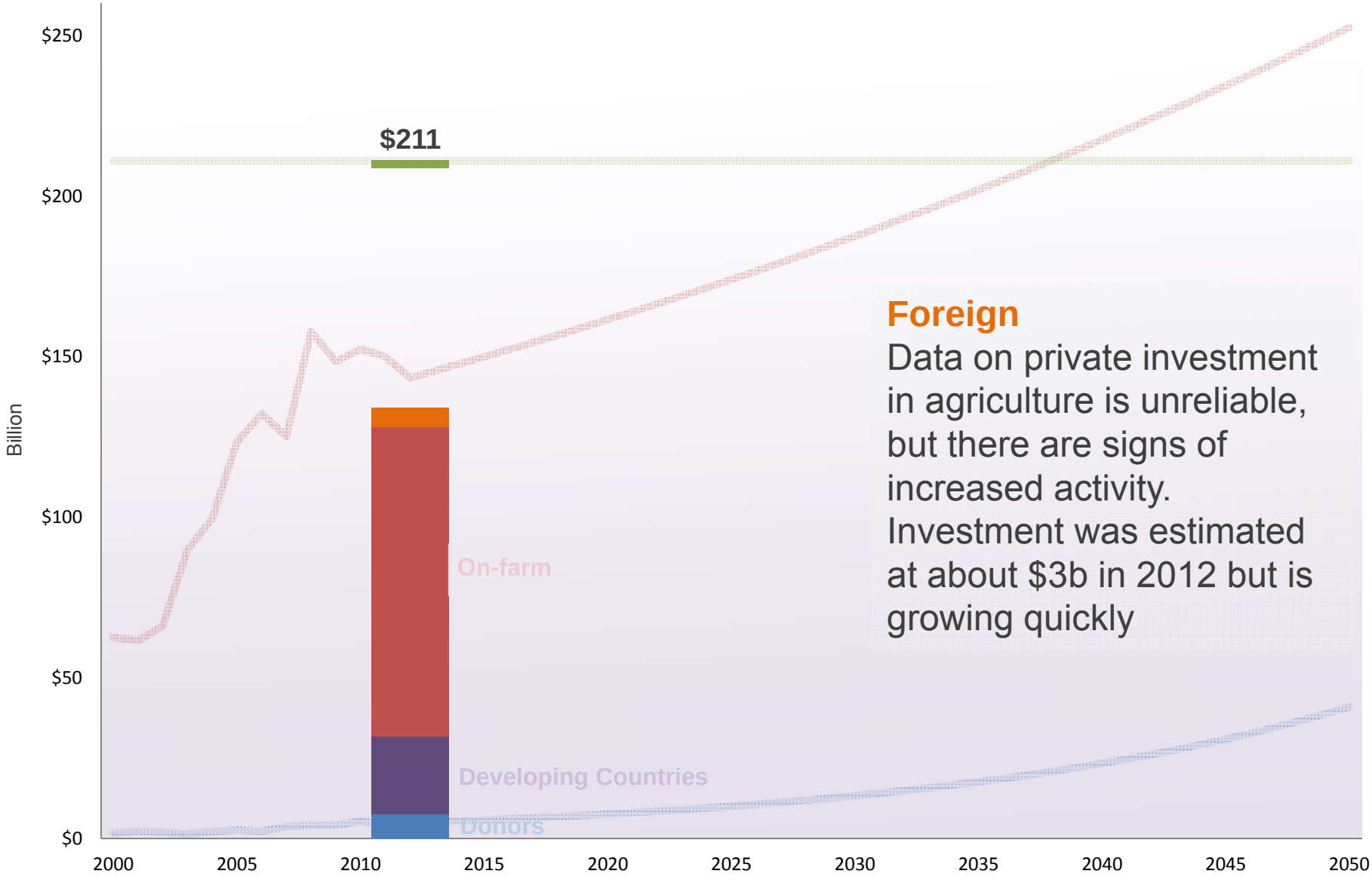
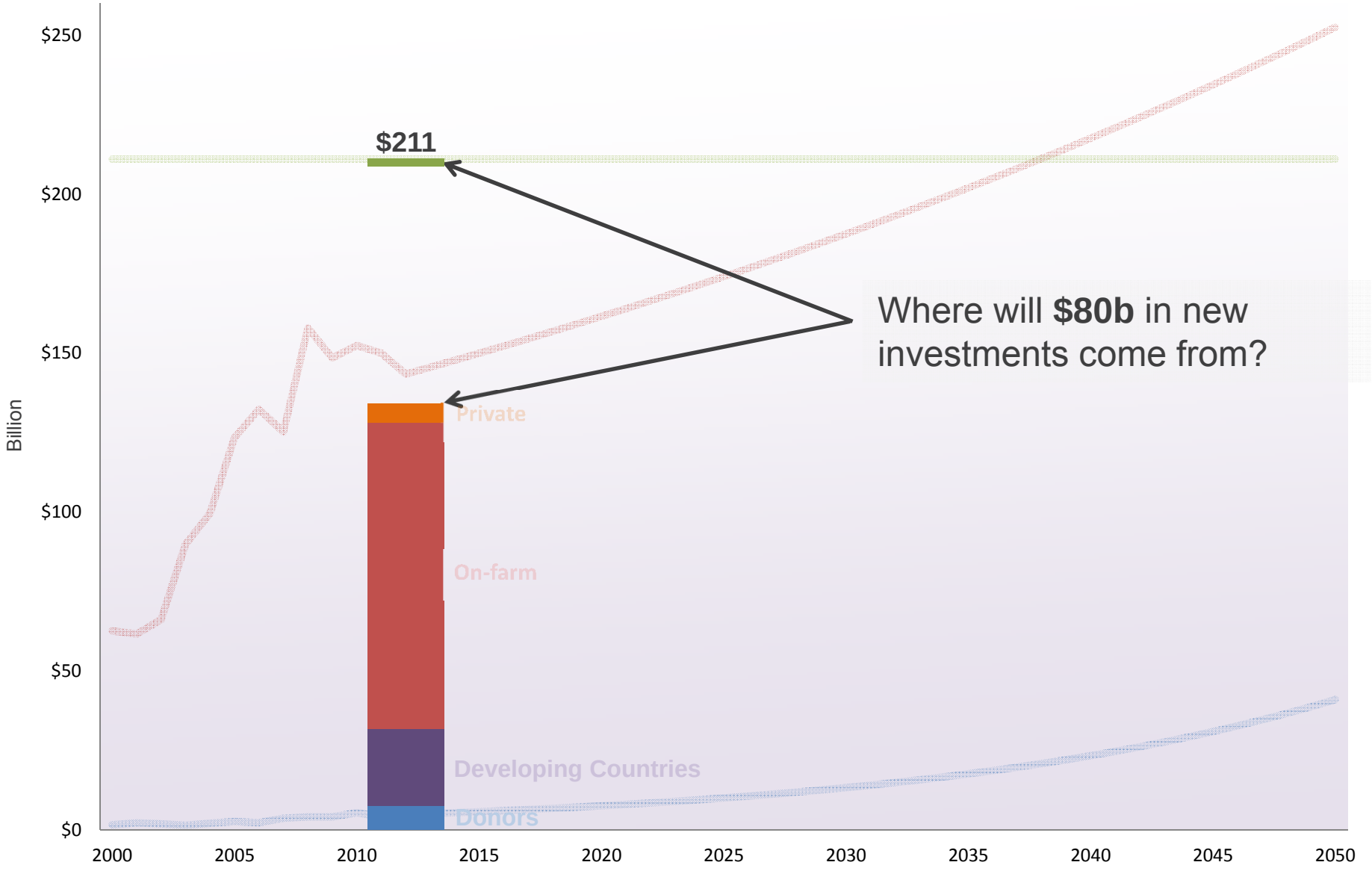


Foreign

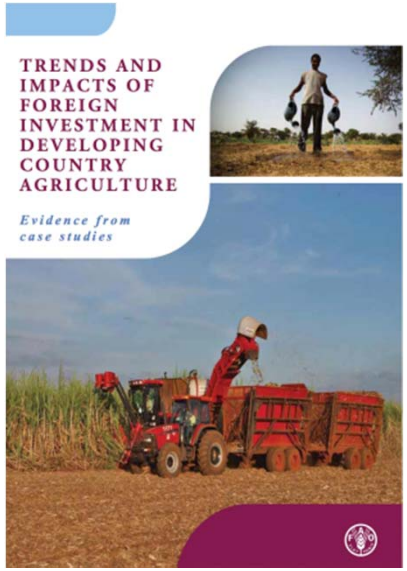
Data on private investment in agriculture is unreliable, but there are signs of increased activity. Investment was estimated at about $3b in 2012 but is growing quickly

Closing the Gap: Investment



Closing the Gap: Private Investment

- Evidence of surge in foreign investment for primary agriculture but data on investment flows is lagging or unreported (excludes investment funds)
  - Driven by rise in commodity prices in 2007-2008
- Key Players
  - Private: Agricultural and agro-industrial companies, and increasingly investment funds, pension funds, hedge funds.
  - Public: governments (China, Gulf States), sovereign wealth funds and other state-owned companies.



Source: FAO

- Geographic Trends
  - Focus on Africa: Reported FDI land deals for territory the size of Zimbabwe (4.8% of continent's total agricultural area)
- Funding Trends
  - More than FDI. Farmland and ag infrastructure viewed as an emerging asset class among large investment firms: strong fundamentals, historically good returns, mixture of income and capital gains, hedge against inflation
  - Emergence of impact investors to address the "missing middle" (Acumen, Omidyar)
  - Growth of Microfinance Investment Vehicles (ACCION) aimed at poorest

Closing the Gap: Innovation

Shaping a more livable world.

Closing the Gap: Innovation

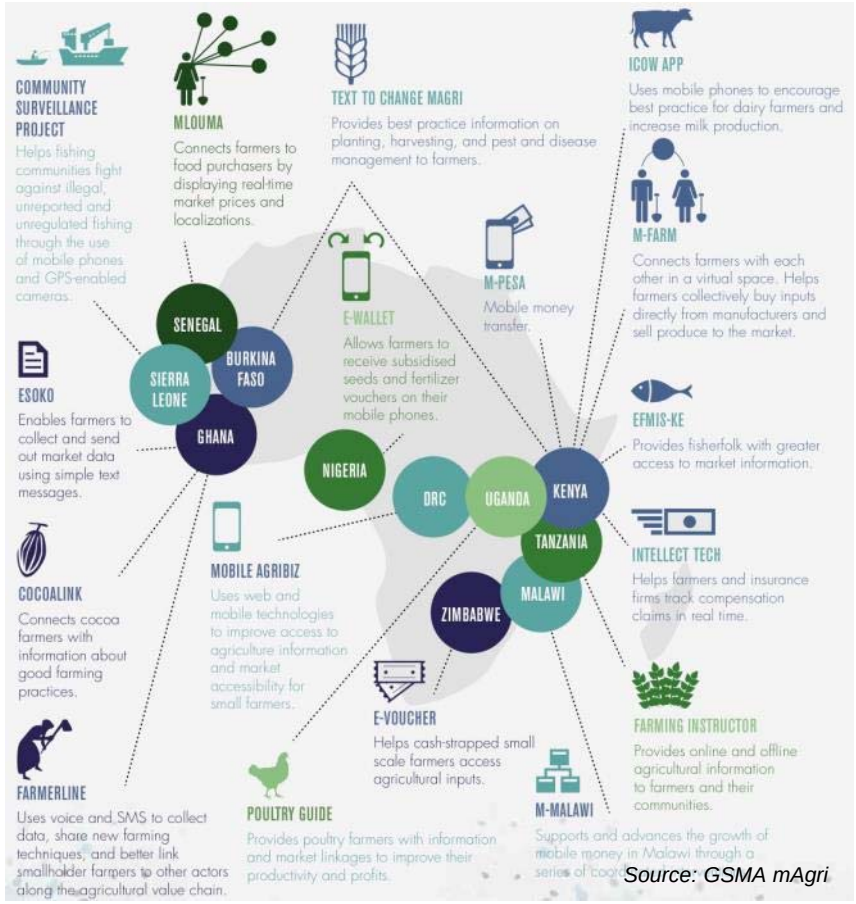
The Reality

- **Farmers use mobile phones…because it helps their business**
  - — Networking with buyers to make more money, waste less product.
  - — Another channel for extension services

The Promise

- **Emerging ecosystem of products and services to that promise to improve productivity but need replication, customization, and**
  - Mobile payments
  - Early warning for pest & diseases
  - Transparent market data
  - Sharing best practices
  - Marketing to bottom of pyramid
  - Community surveillance (fisheries)
  - Anti-counterfeiting

Mobile phone penetration in developing world, including about 10% for smart phones



Source: GSMA mAgri

An emerging ecosystem but still waiting to take off

Closing the gap: Major USG Initiatives

Feed the Future

- $3.5b initiative that has leveraged $18.5b in commitments from other donors to increase agricultural production and raise rural income through investments in agriculture and scaling up small-scale producers in 19 countries
- FtF's **Partnering for Innovation** program uses grant funds to invest in companies with tested technologies that are ready to be introduced into new markets
- FtF contributes to the New Alliance Partnership to form innovative partnerships with global and local companies to mobilize private capital, innovate to scale, and manage risk

Global Development Lab

- New entity within USAID that brings together diverse partner base to discover, test, and scale solutions aimed at ending extreme poverty by 2030.
- Providing prizes to apply breakthroughs in science and technology to development challenges through five Grand Challenges, including **Powering Agriculture** and **Securing Water for Food**
- Development Innovation Ventures is an open competition seeking breakthrough solutions to development problems at a fraction of the cost of
- Ramping up guarantees to investors through the Development Credit Authority

Power Africa

- Partnering with African governments, the private sector, and other partners to add more than 10,000 megawatts (MW) of clean, efficient electricity generation capacity in Ghana, Nigeria, Tanzania, Ethiopia, Kenya, and Liberia. Commits $7b in US government funds to leverage up to $14 billion in private funds

Global Climate Change

- Working with international partners to foster low-carbon growth. New emphasis by President's Global Council on Development on climate-smart food security reflects effort to tie climate efforts more closely to poverty reduction