



Consultative Meeting on Mechanization: Vignettes and Reflections

Safari Park Hotel, Nairobi, Dec 2, 2016|



Sarwat Hussain
Head of Communications
Agriculture Global Practice
shussain@worldbank.org

“As with hoes and hard soils,
there are no easy breakthroughs to be had.”

African agriculture: A green evolution

The Economist | March 12, 2016



Snapshot of Our Consultative Event

- 105 participants registered
- Ten co-sponsors, hosted by Government of Kenya
- Wide geographic coverage, participants from across Sub-Saharan Africa, CGIAR
- 2 days, 8 Sessions, over 25 keynote and technical presentations
 - **Strong audience engagement**
- Two field visits
 - **Lengetia Farm (Conservation Agriculture)**
 - **Kendat Farm (Mechanization Hub)**
- Focus on Cutting-Edge Knowledge & Innovation, Sustainable Policies, North-South best practices



Snapshot of Themes

- Sharing Global Lessons of Experience
 - Asia
 - Africa
- Overview of Public-Private Partnerships
 - Benin, Kenya, Rwanda, Nigeria, Zambia
 - Spain (Agrievolution), Germany
- Private Sector participation
 - AGCO, John Deere, Massey Ferguson, Feil, and others
- New Models (Strategic, Financing, Implementation)



Overview of Planned Outputs

Three Key Areas

- New Collaborative Models
- Knowledge Platform
- Centre for Sustainable Mechanization for Sub-Saharan Africa

Laserlike focus on the diverse ecologies, farm types and needs of African farmers



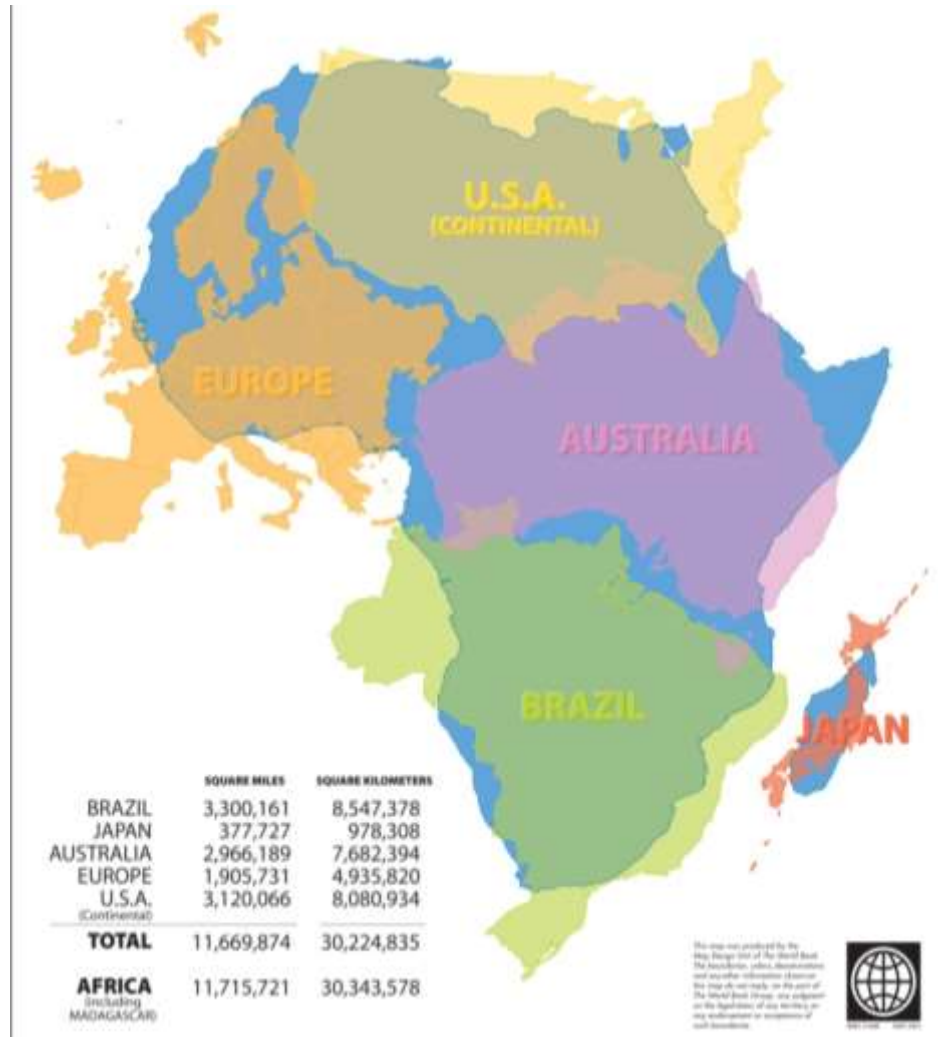


A Time of Opportunity to End Poverty and Hunger



WORLD BANK GROUP
Agriculture

Africa: so large...

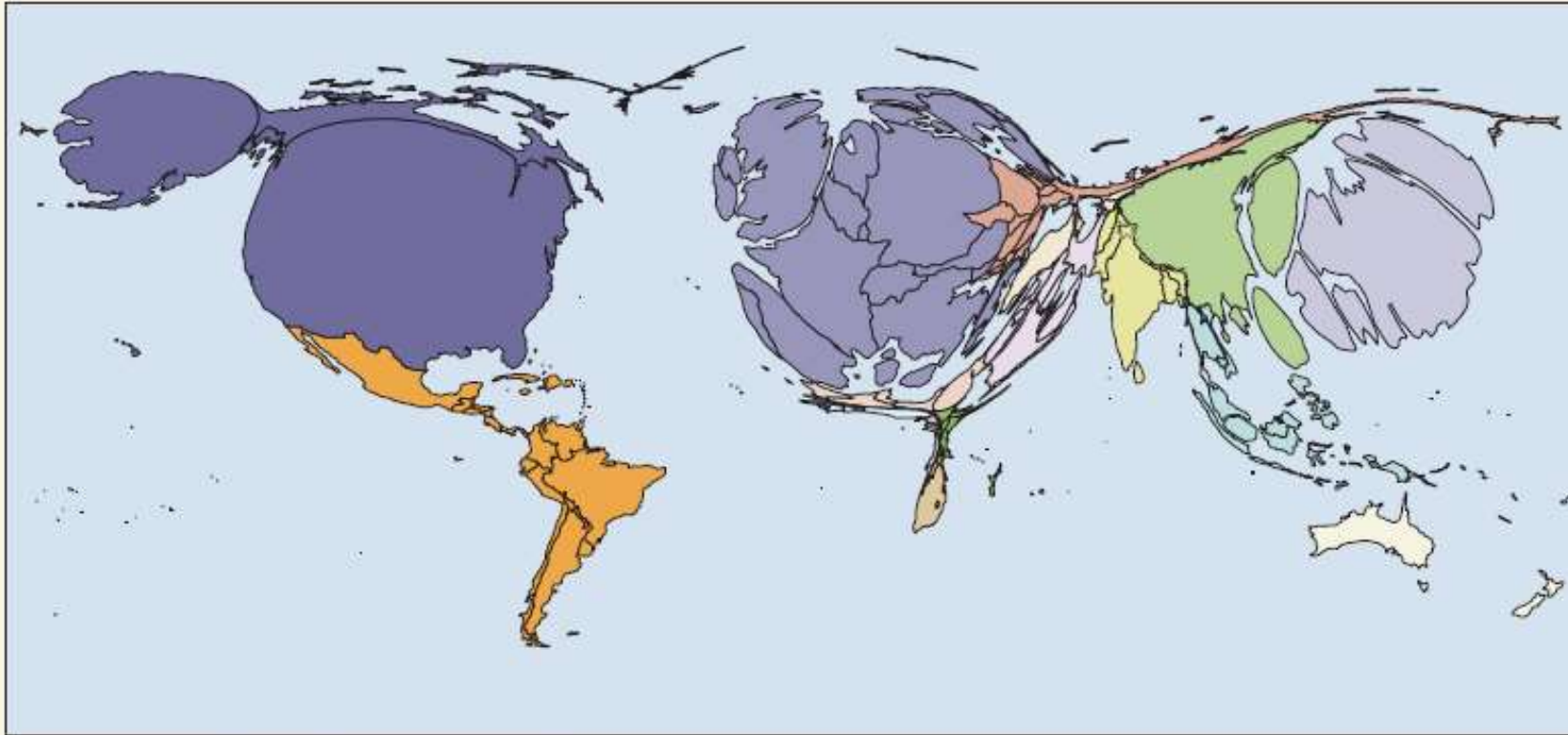


Africa is home to nearly half of the world's usable, uncultivated land – over 202 million hectares

Yet 90 percent of Africa's rural land is undocumented, making it highly vulnerable to land grabbing and expropriation with poor compensation

Africa: Yet so small – a market view

A country's size shows the proportion of global gross domestic product found there



Source: WDR 2009 team using 2005 GDP (constant U.S. dollars).

Note: The cartogram was created using the method developed by Gastner and Newman (2004). This map shows the countries that have the most wealth when GDP is compared using currency exchange rates. This indicates international purchasing power—what someone's money is worth if spent in another country.

Source: *Reshaping Economic Geography*, World Development Report 2009

Africa's Food and Beverage Markets

- Spiraling Demand
- Trillion Dollar Opportunity by 2030, up from only \$313 billion today
- “Business Unusual” approach needed
- Sustainable mechanization must lie at the heart of our response



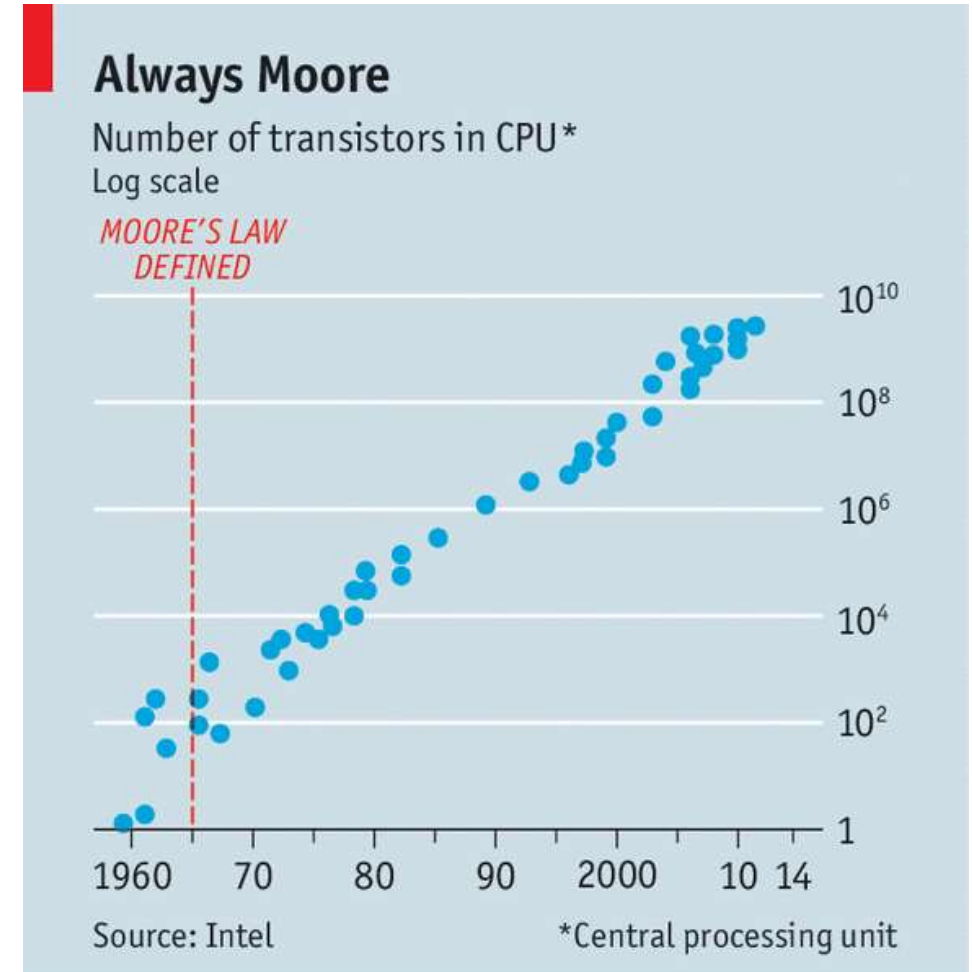
BOOST CLIMATE-SMART AGRICULTURE, SECURE THE TRIPLE WIN

Increased productivity
Enhanced resilience
Reduced emissions



A time of unbridled opportunity: Moore's Law

- April 19, 1965, some 51 years ago
- Prediction by Gordon Moore: The number of transistors that can fit on a silicon chip would double roughly every two years
- Remarkably, Moore's Law has held constant over the past 50 years
- Comparing first generation microchip, the "1971 4004" with today's fifth-generation "Core i5" processor:
 - 3.5K times more performance
 - 60K lower cost
 - 90K more energy efficient



If 1971 VWs had kept pace with Intel chips

- 300,000K miles per hour
- One gallon of gas would take you a million miles
- Mere cost of \$0.04 cents
- You could still be stuck on the Washington Beltway but at every opening you would hurtle at 300,000K miles an hour



Source: Moore's Law Turns 50 by Thomas L. Friedman, New York Times, May 13, 2015

Power of Innovation, Science

- Wheat, England
- It took 1000 years for wheat yields to increase from 0.5 to 2.0 metric tons per hectare
- Thanks to modern plant breeding, it took only 40 years for yields to climb from 2.0 to 6.0 metric tons per hectare!



New Technology: some caveats

- New technology is neither scale nor effect neutral
 - Elites are usually first to benefit (e.g. Green Revolution)
 - Can exacerbate inequality
- There are no universal solutions, but there are universal processes -- accountability, good governance, and participation among others -- that can pave the way for local solutions.



New Technology: some caveats

- New technology is neither scale nor effect neutral
 - Elites are usually first to benefit (e.g. Green Revolution)
 - Can exacerbate inequality
- There are no universal solutions, but there are universal processes -- accountability, good governance, and participation among others -- that can pave the way for local solutions.



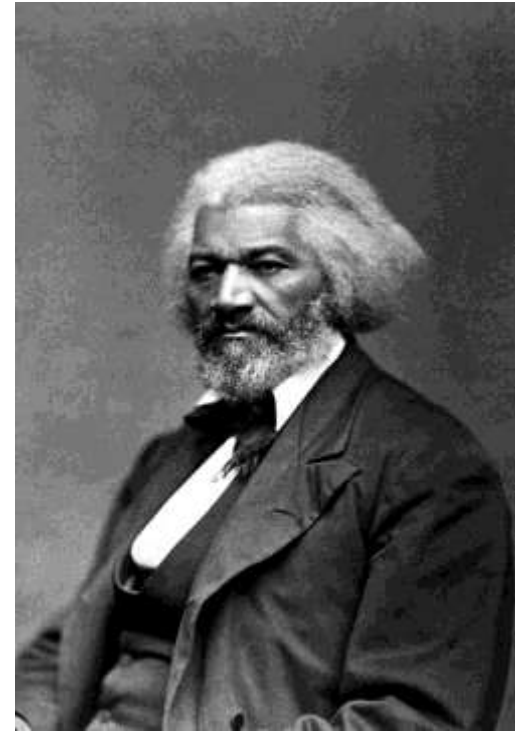
A big “Thank You” to all who made this event possible



Pop Quiz



Pop Quiz



Frederick Douglass (February 1818– February 20, 1895) was an African-American social reformer, abolitionist, orator, writer, and statesman. After escaping from slavery in Maryland, he became a national leader of the abolitionist movement from Massachusetts and New York, gaining note for his dazzling oratory and incisive antislavery writings.



Our Calling: Become the new abolitionists of our time, abolish hunger, and help shape...

A global food system that can feed every person, every day, everywhere, with a nutritious and affordable diet, delivered in a sustainable way!

