Shifting Winds in International Agricultural Development:  
What’s Behind Africa’s Turnaround?  

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Hill Seminar Series, 19 May 2014  
Council on Food, Agricultural and Resource Economics (C-FARE)  
National Coalition for Food and Agricultural Research (NCFAR) and Tufts University

Africa has some of the world’s fastest economic growth rates

BBC News  
15 April 2013  
World Bank: Africa’s economic growth to outpace average

The Globe and Mail  
PORTFOLIO STRATEGY
For rapid growth, Africa is the new China

The Washington Post  
Africa’s emergence poses choice for US ties
Associated Press, May 6th 2014
...So far, the U.S. is lagging in the worldwide race to reap economic benefits in Africa...
Africa is catching up, but still has far to go

Food supply and real income by region, 1990-2012


With higher incomes, children grow taller

Figure 1. Child height and real income, 1985-99 and 2000-10 (Ezzati et al. estimates, N=1,455 from 137 countries)

...and at each income level, children are slightly taller now

Higher income changes diet quality as well as quantity

Share of calories from animal sources, total food supply and income, 1961-2009

(FAO estimates, N=7,031 from 169 countries)

Higher income also buys sanitation and clean water (among other things)

Access to sanitation, improved water and income, 1990-2010

What drives income growth?

- Most of the poorest people are in rural areas
  - they rely on agriculture for economic opportunity
  - and move to off-farm work as soon as they can

Amai Nickson and family at Chakuma Village, Zimbabwe
25 years after I taught in the classroom at right (with Tadius Shumba)

Urbanization and off-farm work can eventually employ all the children of farmers

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**Sub-Saharan Africa population by principal residence, 1950-2050**


Africa’s year-to-year rural population increase has been fast but is now slowing

**Rural population increase in Africa, South Asia and Worldwide, 1950-2050**

Adapting to higher rural population density calls for difficult, surprising innovations

Digging zai pits concentrates moisture and nutrients, making it worthwhile to use more fertilizer and new seed varieties

Interventions to improve agriculture and nutrition can start a cycle of success

Successes seize local opportunities to meet changing needs
From 1970 to 1995, Africa had over 90 child dependents per 100 working-age adults. That dependency rate is still high but now falling (a "demographic gift").

Africa is in the last stage of demographic transition from large to small families.

Africa has a long way to catch up: Africa’s ag R&D is 25 years behind Asia’s

![Graph showing adoption of new varieties percentage in Africa and Asia](image)


**Figure 16.** Adoption of new varieties (percentage of cropped area).


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Africa’s green revolution has now started, 25 years after Asia’s

![Graph showing USDA estimates of average cereal grain yields](image)

Source: Calculated from USDA, PS&D data ([www.fas.usda.gov/psdonline](http://www.fas.usda.gov/psdonline)), downloaded 2 August 2013. Results shown are each region’s total production per harvested area in barley, corn, millet, mixed grains, oats, rice, rye, sorghum and wheat.
U.S. aid for agriculture has just begun to recover after being sharply cut in 1980-99

Global aid trends have been similar to the U.S. trends, magnified times four
Many African governments are now focusing more on agriculture

Long-term trends are slowly shifting to favor agricultural development in Africa

- From the 1970s through the 1990s, Africa faced the world’s heaviest demographic headwinds:
  - Rural population growth rates rose to over 2% per year
  - Child dependency rates rose to over 90 children per 100 adults
- Africa is now catching up with Asia’s demographic transition and agricultural revolution, creating economic opportunity
  - New farming techniques and crop varieties are finally arriving
  - Many interventions help drive agricultural and nutrition improvements
- “Africa” is 55 countries with many diverse challenges
  …but the odds of success are improving, with high payoffs to intervention
To conclude, back to our first slide:
Africa and Asia both still have far to go,
offering big opportunities for rapid growth


Thank you!
For research findings behind this talk, see
http://sites.tufts.edu/willmasters

www.ncfar.org  www.cfare.org  nutrition.tufts.edu