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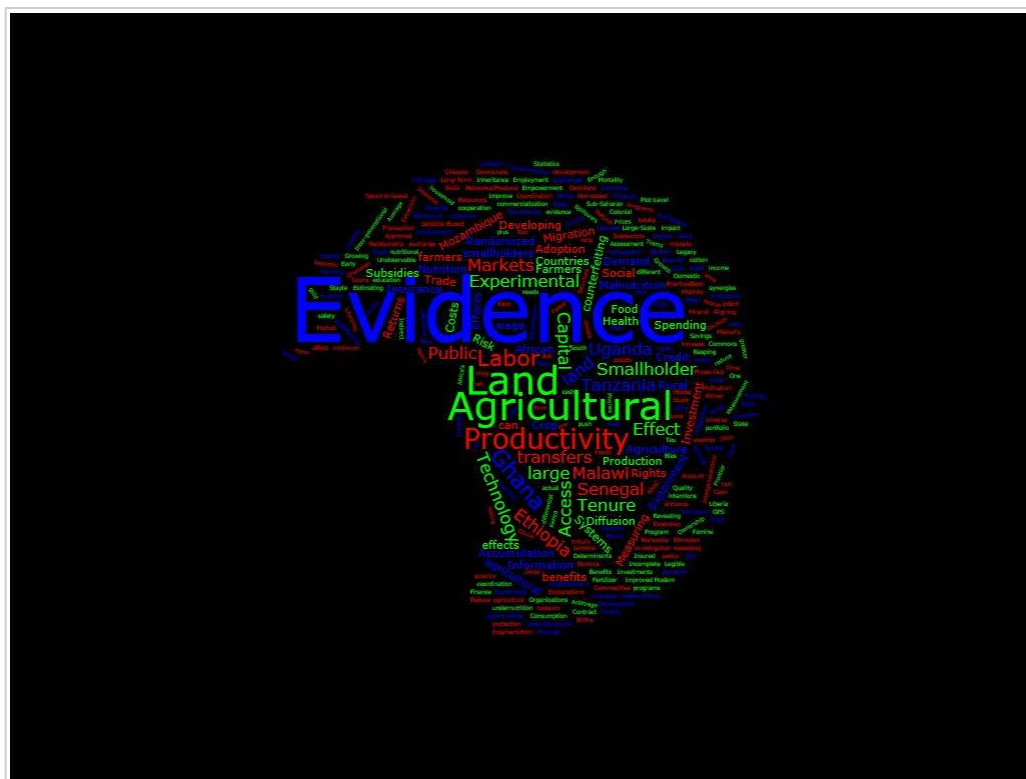
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# ABCA 2017 Roundup: The latest research on agriculture in Africa



SUBMITTED BY **MARKUS GOLDSTEIN** ON MON, 06/05/2017



This post is joint with Niklas Buehren and Muthoni Ngatia

You can find the entire conference schedule [here](#). In the summaries below we link to papers and videos (where applicable).

The conference opened with an overview of challenges and opportunities for African agriculture by Albert Zeufack and a wide ranging overview of nutrition security from Kay Dewey. You can watch the video of that session [here](#).

### Nutrition 1

Being exposed to famine in #Ethiopia, in utero and as a young child, significantly lowers human capital outcomes. And effects persist into the next generation. ([Asfaw](#))

Holding all else constant, does more seasonal variation in consumption lead to lower accumulation of height and education? Yes, using long term panel data from #Tanzania. (Dillon)

Land title registration in a national #RCT in #Rwanda releases agricultural labor used for guarding and doesn't impact agricultural yields. This labor moves to off-farm wage employment and enterprises. Household welfare improves. (Goldstein)

### Land Tenure 1

Land transferred to large estates is less efficiently used compared to land held by smallholders and falls short of potential contributions to public revenue. #Malawi (Deininger)

Larger land inheritances lead especially male youths to migrate less to urban centers and increase the likelihood of them being employed in the agricultural sector. #Ethiopia #IV (Kosec)

Considerable gender gaps in different measures of land rights, especially ownership, still exist in SSA and a single proxy may not be sufficient to monitor progress. (De La O Campos)

### Agricultural markets

The introduction of mobile phone services from 1997 to 2009 explains a 4.5-11% percent reduction in price dispersion of maize prices #DiffinDiff #Mozambique (Zant)

Districts receiving more migrant capital saw employment diversify away from agriculture and into the more capital-intensive non-farm service sector #DiffinDiff #Malawi (Dinkleman)

Low cost railway transport services explain a 14% to 17% reduction in price dispersion across markets #DiffinDiff #Mozambique (Zant)

### Nutrition 2

Moving from an average of 0% of cropped area in modern varieties in 1960 to 63% in 2000 led to around a 3% decrease in infant mortality (from a baseline of 17%) higher for male infants #DiffinDiff (Dar)

The Productive Safety Net Program has not had an effect on household dietary diversity or children's nutrition #Ethiopia (Gebrehiwot)

### Land Tenure 2

What happens when communal land is privatized? Evidence from a natural experiment in #DRC shows no increase in agricultural productivity but an increase in conflict over land. (Vinez)

More land fragmentation is associated with lower exposure to shocks. It's also associated with lower yields, but once you control for travel time costs, it's no longer significant. Evidence from panel data (and a neat application of the travelling salesman problem) in #Rwanda. (Ali)

Private property rights (versus communal rights) lead to large scale land investments with associated forest clearing in the wake of the 2008 food price crisis. Evidence from #Liberia using a discontinuity design. (Christensen)

### Data and Measurement

Data from three SSA countries shows a systematic bias in farmer self-reported plot area estimates and that GPS is a more cost-efficient technology to obtain accurate measures compared to traditional techniques. (Gourlay)

Spectral analysis of soil samples can considerably improve on subjective assessments of soil quality which typically suffer from low quality and exhibit little intra-household variation. (Aynekulu)

Skills are predictive of agricultural outcomes but technical and non-cognitive skills are more difficult to measure

than cognitive skills though there are ways to make measures less noisy. ([Macours](#))

Day 1 closed with an invited **panel** of Alain de Janvry, Michael Carter and Lori Beaman discussing agricultural productivity and poverty reduction. Alain gave us some thoughts on the need for a rural transformation (think off-farm, rural work) as well as an agricultural transformation. Michael laid out the factors limiting a green revolution in Africa and zoomed on addressing liquidity constraints, with savings interventions and smart subsidies. Lori discussed direct and indirect channels by which investment in agriculture could reduce poverty, zooming in on experiments in Mali. You can watch their presentation and discussion [here](#).

Day 2 opened with a keynote address with Ted Miguel on understanding agricultural productivity gaps. You can watch the video [here](#).

### **Development Programs and Agriculture**

Using an #RCT to evaluate a program to provide advice to farmers versus advice and a farm plan versus advice, a plan and a cash transfer in #Senegal. Cash transfer plus plan versus plan alone have statistically equivalent effects on gross value of ag output in year 1, but not year 2 (when both have no significant impacts). Livestock effects are more pronounced in year 2 from the cash transfer. ([Ambler](#))

What is the combined impact of farm subsidies plus cash transfers in #Malawi? Joint impact on consumption seems higher, particularly for labor unconstrained households using matching and diff-in-diff. ([Pace](#))

What is the effect on commercialization when smallholders get cash transfers? Cash transfer increased sales of crops at both the extensive and intensive margins according to evidence from an #RCT in #Zambia. ([Prifti](#))

### **Risk and Insurance**

A crop insurance product that allows farmers to pay the premium at harvest has a take-up rate of 72%, compared to 5% for the standard upfront contract, and take-up is highest among poorer farmers. #RCT #Kenya ([Willis](#))

Testing a pilot area-yield index insurance project sold to cotton farmer groups, no impact was found on cotton production, most due to the late sale period (during the sowing period). However, substantial and significant impacts were found on several activities and assets such as field investments, sesame cultivation and livestock herding. #RCT #BurkinaFaso ([Stoeffler](#))

### **Farm Labor**

Standard labor recall surveys may vastly exaggerate agricultural labor inputs and bias estimates of farmers' productivity downwards. #Tanzania ([Palacios-Lopez](#))

Raising the agricultural minimum wage increased wages in real terms but also decreased employment. #SouthAfrica ([Ranchhod](#))

Farming households adapt to adverse weather shocks both ex ante and ex post through shifts in income generation and migration. #Mozambique ([Ayenew](#))

### **Productivity of Smallholder Farms**

New high-resolution imagery can provide measurements of smallholder productivity that are as accurate as traditional survey based measures. ([Burke](#))

Evidence shows that land titling improves perceived tenure and leads to increased access to credit, off-farm earnings and activity on land markets. #RDD #Ghana ([Buehren](#))

The inverse relationship between plot size and productivity can be explained by the edge effect which leads plots with higher perimeter-area ratios to be more productive. #Uganda ([Bevis](#))

### **Technology Adoption**

Farmers believe that 41% of local herbicide is counterfeit are strongly correlated with the true quality available in local markets. #labinfield #Uganda (Karachiwalla)

Farmers rely on fertilizer observables (e.g. caking, clumping) to assess unobservable quality, and are unwilling to purchase substandard-looking (but agronomically acceptable) fertilizer unless it is sold well below market price. #Tanzania (Michelson)

Loans with micro-insurance increase loan application for female farmers. Loans with meso-insurance increase loan application for those farmers who place the highest trust in the bank. #Ghana (Mishra)

### Households

Do different types of assets have differential effects on child education? Using production function estimates and an IV on data from #Tanzania the authors find that agricultural assets have a negative association with years of education completed, but durables and housing quality have a positive association. (Kafle)

What is the impact of mining activities on educational outcomes in host communities? Using spatial and temporal variation in mine opening and closing in Ghana, mines are associated with increased enrollment in primary school, but lower enrollments among youth 17 or more years old. This latter effect is different for males versus females. (Mensah)

Slightly more than half of kids in #Nigeria don't have the same occupation as their parents. For kids who do switch, the education of the mother and mother's occupation seem to matter. From analysis with panel data. (Yitbarek)

### Social Networks/Producer Organizations

What happens to social capital when there are large scale agricultural investments? Cross sectional analysis of a high stakes game show that those close to the investments are more likely to cooperate in #Zambia. And they are more likely to share public goods. (Sipangule)

Are there spillover benefits from large farms in #Ethiopia? Not much in terms of changing farming practices (positive or negative), but maybe a bit on helping with responding to shocks. Interesting fact: among commercial farms, the highest yields are in small commercial farms (<20 ha). (Deininger)

More productive neighbors increase your productivity, by a significant if not huge amount. Seems to be working through psychological mechanisms, not learning or friends. Evidence from an #RCT on tea farms in #Malawi. (Kerwin)

### Smallholder farmers: productivity and coordination

There is a large and negative gender gap in dairy farming productivity especially in non-cooperative households. #Senegal (Hidrobo)

Learning about the intentions of other members in a farmer group improves measures of collective action in a lab setup. #RCT #Senegal (Aflagah)

Several seasons after a randomized phased-out of an agricultural input support program, farmers continue to apply improved practices and use improved seeds. #RCT #Uganda (Bobic)

### Public Finance and Subsidies

Financial education raises formal savings with an information externality in the form of higher savings at competitor banks. #RCT #Mozambique (Laajaj)

Public spending in agriculture in Africa is too low and inefficiently allocated (Goyal)

High public spending in the cocoa sector, despite higher returns in the non-cocoa sector #Ghana (Benin)

Tags: [Africa](#) | [Agriculture and Rural Development](#) | [ABCA](#) | [ABCA2017](#) | [Annual Bank Conference on Africa](#)

## Comments

### Very useful event and its

SUBMITTED BY [ASMAT ALI](#) ON MON, 06/05/2017 - 10:23

Very useful event i.e. ABCA 2017 Roundup: The latest research on agriculture in Africa and its write-up. Thanks for sharing it.

reply

### It was a great event! Happy

SUBMITTED BY [KASHI KAFLE](#) ON MON, 06/05/2017 - 13:45

It was a great event! Happy to be part of it. Many thanks to Markus, Niklas, and Muthoni for sharing the write-up. Extremely useful material familiarize with the latest research on Agriculture in Africa.

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