



ASK THE EXPERT: AFRICA'S GREEN REVOLUTION AND POLICY LEVERS

AUDIO TRANSCRIPT

JUNE 7, 2018

PRESENTERS

James Oehmke, USAID Feed the Future Policy Team

MODERATOR

Julie MacCartee, USAID Bureau for Food Security

April Thompson:

Hello, and welcome to today's Ask the Experts on Africa's Green Revolution and Policy Levers. This is a special event helping Agrilinks' food policy – food security policy month this June. My name is April Thompson. I'm the Knowledge Management Portfolio Manager here at the Knowledge-Driven Agriculture Development project that oversees Agrilinks. And I'm excited to be facilitating today's discussion featuring Jim Oehmke, who is a Senior Food Security and Nutrition Policy Advisor at USAID's Bureau for Food Security.

So, before I introduce him further I want to kind of go over how today's event will work. We've got a number of great questions we have already received from registrants, which I will be reading out to Jim along with a few questions of my own, but we do encourage you to type in any comments, questions in the chat box, as our team of online facilitators will be selecting some questions from there to pose throughout the event.

We're going to try and keep this short and sweet, to a half hour, but if we have some great burning questions that run over, we may reserve the right to run over a little bit. Otherwise, you can look for a follow-up blog post from Jim answering some of the questions that we don't get to today.

I'd like to also mention that today's event is being held in conjunction with the organizers of the International Consortium on Applied Bioeconomy Research, which is a conference that will be held at the World Bank here in D.C. in June, where Jim will be speaking, and a number of his co-panelists are joining us today and will also be engaging with participants in the chat box, so look out for them.

So, with that I'd like to go ahead and introduce our featured expert, Jim Oehmke. Jim is a Senior Food Security and Nutrition Policy Advisor for USAID working with the Feed the Future policy team. He serves as policy lead for the agricultural transformation, mutual accountability, and nutrition policy. Previously, Jim taught at Michigan State University for 25 years and was the CEO of the George Morrison – the George Morris Center, Canada's leading agricultural think tank. He has over a hundred scholarly publications, and areas of interest include economic impacts of food, agriculture, nutrition, and health programs; evidence-based programming; and program evaluation. He has a B.A. in math and economics from Yale and a Ph.D. in economics from the University of Chicago.

Jim, welcome.

James Oehmke:

Thank you, April. It's a pleasure to be here. Pleasure to be on Agrilinks. Thank you to everyone for logging into Agrilinks. Julie, you mentioned that this is co-sponsored, and let me just give a shout out to my fellow experts who are going to help me answer the hard questions. So, online we have Professor Anwar Nasim, who has done a fair amount of work on measuring agricultural transformation, and he's going to help me answer some questions on that. We have online Professor Charles Moss, who has some very interesting work coming forward on the agricultural transformation that's unfolding along the Senegal River Valley, and he's going to help me answer questions on that. And we have online Professor Eric Riley, who has done some very interesting work on political will centered around climate-smart agriculture, and he's going to also help me answer some questions online. So, unfortunately you get to hear only me talking, but these other three experts will be in the chat box answering your questions. So, thanks to them for participating in this.

April Thompson:

Thanks, Jim. So, to kick it off, maybe you can give us a little perspective on the Green Revolution. As a policy expert, what do you think that Africa can learn from the successes and shortfalls of the Green Revolution in Asia and other regions?

James Oehmke:

So, I like that question. Thank you for that, April, because it introduces into the Green Revolution the idea of the policy perspective. So, let's be very clear. The Green Revolution, as it unfolded first in the 1960s with rice and wheat, was a technologically-driven Green Revolution. So, the constraint to better agricultural productivity was technological, and with the advent of the semi-dwarf rice and wheat varieties those technical constraints were overcome, and that both catalyzed the Green Revolution and provided the shape of the Green Revolution in those first cases.

But then, over time policy became more important and played a more prominent role in the Green Revolution. So, in Mexico the maize-based Green Revolution was delayed for maybe a decade or so because the land rights were an impediment to farmers investing in the hybrid maizes that eventually became the driving force between – behind the Mexican Green Revolution.

Then, you fast forward a few years and you see China, which has a Green Revolution and one of the best records over the past 37 years in terms of poverty reduction. And in fact, what China did was to stimulate and catalyze their Green Revolution from a change from a very heavily government-oriented pricing system with quotas and pricing, no free market government pricing, into a household responsibility system in '78 and '79, and then ensuing liberalization in the agricultural sector. And that really stimulated the adoption of new technologies in China. Vietnam followed a similar pattern about six or seven years later with liberalization in the '80s. We see patterns in places like Bangladesh where, again, policy for opening up irrigation possibilities really played a difference.

So, now we're in a situation – and Africa is in a situation and contextually and temporally we're in a situation where policy is going to be the key to unlocking the Green Revolution, even though the Green Revolution will still be driven by technical advances that lead to better productivity. So, we need to get the policy, the agriculture and food policy right in Africa to unlock that Green Revolution.

April Thompson: And what do you see as unique to the African context?

James Oehmke: Well, there are several things unique to the African context. Some of them help and some of them don't. So, Africa is a very – excuse me – is a very big continent, and agroclimatically it differs, and so there's not going to be one crop that opens up the Green Revolution across Africa. Some – one thing that helps Africa very much is they have a coordinated continental effort through the Comprehensive Africa Agriculture Development Program. And that program really brings the continent together. It opens up possibilities that this is not just a government-directed Green Revolution but it is an inclusive Green Revolution with civil society and private sector and all stakeholders included in shaping and benefitting from that Green Revolution.

And that's really a positive thing going forward. It enables achievement not just of increases in agricultural productivity and production but improved nutrition and contributions to a number of sustainable development goals.

April Thompson: And what else would you say is different about the context now compared to if we look back to the Green Revolution of the '70s and beyond?

James Oehmke:

So, there are several differences. One is that in the Green Revolution in the '60s and '70s it was very focused on the staple crops, and smallholders made a fair amount of money on those staple crops. Nowadays, the staple crops – the real price of staple crops is about a quarter to a third of what it was in the 1960s. So, we're having a smaller impact on smallholder income from staple crops.

The second component of the Green Revolution in the '60s and '70s was smallholders were not going to get rich growing staple crops, but they had enough money from the improvement so that they could move off the farm and either they or their children could move off the farm and get a job. And there were a lot of high wage – relatively high wage manufacturing jobs that were available and other sorts of non-agricultural productive activities.

With what they called de-industrialization, this global process where high wage manufacturing jobs are being replaced by machines and robots, it's much more difficult for an African smallholder to find employment off the farm, especially if they don't have a lot of financial capital to get started somewhere, and especially if they don't have a lot of human capital, skilled trade to get a job somewhere.

So, advantages and disadvantages, opportunities and challenges that make Africa different from what happened in the '60s.

April Thompson:

Okay. Great. Well, I mean, you mentioned CAADP, but what else is happening on the continent right now to accelerate agricultural transformation that you'd like to call out?

James Oehmke:

Well, there's a couple things. So, last year Africa held its first ever biennial review of agriculture. And this was a continental-wide effort: 47 of the 55 countries in Africa reported on the quality of their agricultural sector. They reported on the production of the agricultural sector, the level of government engagement with the agricultural sector, they reported on accountability within the sector – just a whole variety of different things. And they put that report forward and it was vetted at the country level, it was vetted by the regional economic communities, and finally, in January of this year it was presented at the African Union Summit to the heads of state.

This generated just a huge amount of political will in order to recognize what was wrong and right with African agriculture, to build on those strengths that are right. And let's be clear: There's a lot that's right with African agriculture. We hear a lot about the wrong but there's a lot that's right. So, there's now tremendous political will to build on that report and to improve agricultures going forward.

So, how do we do that? Well, this year the emphasis is on refreshing national agricultural investment plans. So, 47 countries across the African continent have national agricultural investment plans. A few more will have their first CAADP – Comprehensive African Agriculture Development Program investment plan this year. And many others will have their plans refreshed in order to strengthen their components that were found in the biennial review to be strong and address the weaknesses that need shoring up in order to accelerate their agricultural transformation.

So, this window, this year's – this next 12 months is a window of opportunity that we had not seen previously for maybe 30 years in African agriculture and maybe longer. It's just a wonderful opportunity to help get things moving.

April Thompson:

Well, let's talk about some of those bright spots. And I know you've got some good news and some evidence coming out of Senegal and Rwanda, for example, got share. Can you talk a little bit about how policy changes have contributed to development outcomes and food security in those countries?

James Oehmke:

Yeah. Thanks – again, thanks for that question, April. So, let's – let me just put one more continental set of information out there. So, over the past 25 years or so African food production has increased more rapidly than world food production, and African agriculture has grown more rapidly and African economies as a whole have grown more rapidly than the world economy. And in fact, in these three areas the African economies have outpaced even the BRICs – Brazil, Russia, India, and China – which are sort of the darling success stories of everyone from government to the private sector investment community. But Africa has done better in agriculture and therefore in general economic growth because of the renewed interest in African agriculture.

Just as a couple success stories, Senegal has changed its policy. It used to have limited support for the rice sector, but recognizing the importance of rice as a staple crop in Senegal and recognizing the importance of Senegalese production in rice, they have come up with the plan for the emerging Senegal – Plan Sénégal Émergent – and the agricultural sector component of that, which focuses on rice production, and they have probably doubled rice production. We're waiting for the latest figures but they have probably doubled rice production in the country, maybe more, in the last few years. And that's because of government attention to policy, it's because of increased irrigation, it's because of better rice varieties being introduced, it's because of better processing and value chain mechanics, and it's because of better marketing of that rice to the Senegalese consumers. Now you can go to any city in Senegal, you can walk into a store, and you can buy domestically produced Senegalese rice that is very high quality and a good source of staple food and calories.

Rwanda. Rwanda has had a little bit different type of experience, but again, very successful. So, Rwanda is one of the countries that coming out of the genocide in '95 was – people were suffering. Greatly, greatly suffering. And over the past 25 years they've been able to make great strides in increasing their agricultural production, in moving people – diversifying their diet, which in many cases meant moving from one type of food a day to two or maybe three types of food a day, but nonetheless pairing a staple food such as potatoes or a starch with protein-rich foods such as beef. And that's really helped.

Poverty rates have come down dramatically in Rwanda. Agricultural growth is booming in Rwanda. They have a rice sector; they have a potato sector. They're making great strides. And again, policy helped unlock a lot of what is going on there.

April Thompson:

Great. Well, you mentioned improved rice varieties, and obviously that's coming out of agricultural research efforts. And I'm curious where you see that fitting into the priorities for investing in agricultural transformation. Where does that fit in the scheme of things?

James Oehmke:

Agricultural research? So, when we say "agricultural research," when somebody my age says "agricultural research," we think back to the days when agricultural research meant research on production, and that was what was key in the Green Revolution: getting better varieties. Now, in Africa, in the economies that are trying to stimulate agricultural production, we're seeing 40 percent of the consumer

dollar doing back to the farmer and a decreasing percentage to staple consumer products such as bread. The percentage of the bread dollar that goes back to the farmer is probably 20 percent or less throughout most of Africa.

So, we need to find a way to research throughout all of the components of that consumer dollar. We do need to improve productivity and production in Africa. We do need to invest in climate-smart agriculture that is on the farm. But we also need to invest in those post-harvest technologies that process the food in a safe way, that maintain the nutrient quality or enhance the nutrient quality of the food, and that deliver good, consistent, nutritious food to consumers in large urban areas, in rural small towns, and to the smallholder all at an affordable price. And all of that takes thought, research – there's a lot of work to be done there. The real question now is the balance between how much we focus on on-farm varietal development and how much we focus on post-farm value chain research.

April Thompson:

Great. Well, I want to go ahead and turn to one of the questions from our registrants. We had a number of great questions come in. And this person wanted to know how we can ensure that the data needed for policy analysis can become more accessible and timely?

James Oehmke:

So, I guess there's really two answers to that question. First, we've got to make sure that there's good data available for policy analysis. And we support that – Feed the Future supports that in a couple different ways. One is through improving government data systems, building the capacity of government data systems to provide data. But the other is to enhance the capacity of non-government actors, particularly civil society and also the private sector, in terms of generating and using data. So, part of it is how do you generate data using the most modern information technology, using updates from – live updates from tablets, using information that previously wouldn't have been available, but now a farmer cooperative can enter their data online and become part of the big data set?

And then, the other aspect of it is, as you asked, how do you use it? So, you can use it in the Ministry of Agriculture for administrative regulations. You can use it in Parliament to get bills passed. But what really happens when data is used, when civil society, when constituent groups, private sector comes up to Parliament or comes up to the Minister of Agriculture and says, "We think we would like to make a proposal for a better policy. Here's the data supporting it. We would like you to change this policy." And that's when the real action happens.

April Thompson: All right. Well, let's talk for a minute about subsidy: a necessity to stimulate ag transformation, or an unsustainable market distortion?

James Oehmke: So, we know that subsidies can change people's behavior. We also know that that behavior change is often not permanent. And we also know that in many instances the cost of the subsidy continues to increase. The way in which subsidies has been used in the past is non-targeted subsidies in order to encourage greater use of fertilizer or higher agricultural production, and those do have short-term effects. But we very rarely, if ever, see the long-term effects of those subsidies. And ultimately, the cost of these subsidies continues to rise. So, then you get in these ongoing policy discussions between the Minister of Agriculture, who wants to support these subsidies to continue to increase agricultural product, and the Minister of Finance, who simply doesn't have a way to finance the subsidies.

And ultimately, we have not seen an agricultural transformation that has been based primarily on subsidies. They are primarily based on agricultural technology and they are primarily based on private sector adoption of profitable agricultural technology, including smallholder adoption of that technology. And if the technology is not profitable, the value chains aren't working, then once the subsidy goes away the agricultural transformation stalls. And the last thing that we want is a stalled transformation.

April Thompson: Fair enough. Well, we had a couple of good questions come in around staple crops versus higher value commodities, and you started getting into this earlier when you were talking about the huge drop in price of staple crops compared to during the Green Revolution of the '70s. What are some of the policy approaches that you see helping to optimize that balance between staple crop production and higher value crops?

James Oehmke: So, I think one of the key things there is to provide opportunities to smallholder farmers. So, smallholder farmers grow staple crops for a very good reason; it's that they need to guarantee to food security of themselves and their family, and the markets are sometimes effective, sometimes less effective in guaranteeing that food security. So, they grow staple crops for that reason.

As we provide better markets – so, we were talking about value chain investments, and now we're talking about the set of value chains as a market system. As we have policies and investment that enable the smallholders to have a more secure food source from the markets, then they have the flexibility to decide whether or not they want to continue to grow a staple crop or whether they want to move into a high value crop.

Now, when they move into a high value crop they need to sell into that same market that they're buying food from. So, again, the policy for the market system development there can unlock the potential of some of the technologies. We have some very good high value crop technologies out there that are not readily adopted by smallholders. Why? Because they need to sell into a market and then they need to take that money to buy food, and if those markets aren't effective, they're not going to make that choice. So, the market policy unlocks the technical solutions that are available to smallholders, and it enables them to participate in that income growth in that Green Revolution.

April Thompson:

Thanks, Jim. So, we had a question around climate change and how to manage that to achieve Africa's Green Revolution, which I think is something else that's different in today's context, the increased volatility that needs to be managed at the farm level.

James Oehmke:

Increased volatility is a huge concern at the farm level. And as you move into market systems, which also will be affected by climate, then price volatility also becomes very important. I wish I had an easy solution to this, but when we look at the climates and the agro climates across Africa right today, they are very different. And there are different patterns and potentially changing patterns at very local levels.

So, in some cases irrigation is going to be a great solution. In other cases, a switch of crop type, even to a higher value tree crop, for example, may be the solution. In some cases, it may be that there are climates that are drying that it just makes little sense to look at traditional food crops. Maybe we want to look at energy harvesting through an energy crop that can be grown in a fairly arid climate, or some other form of energy harvesting. How do we enable the smallholders to use their rural and agricultural resources to the best use, whether that is growing a food crop, an energy crop, or just some other use?

So, it's going to take an integrated effort at a very small scale to completely answer that question. I wish we didn't have to do that. I wish there was something that could be applied continent-wide, but it's just going to take a lot of work.

April Thompson:

Well, another thing that's unique about our context today is – particularly in Africa – is the explosion of youth and both opportunities and challenges there with youth unemployment. What do you see as sort of the opportunities there and the role that ag policy can play and help mitigate that and hopefully provide opportunities for the explosion of the youth population?

James Oehmke:

So, I think agriculture and the food sector in general has a huge role to play for generating employment for the youth population. But in terms of youth, again, most of the people in my generation, we got – many of us got our first job in the food sector: flipping burgers, we were waiting tables, we were washing dishes, we were doing something like that. Are we making a living off it? No. Did we learn some job skills like showing up for work on time, doing what the boss tells you to do, getting through the hard part of the day while still accomplishing your job? Yes, absolutely. And those skills carried over in the jobs that we have.

So, I think there's a huge opportunity throughout the value chains, throughout the food markets, throughout the food retail, throughout the food processing and the food away from home, all of which are growing at astronomical rates in Africa. And so, there's huge opportunities for employment there. We're not saying this is the end point of that youth's career, but we're saying that there's an opportunity to get some job experience in there and move up the ladder. And getting on that first rung of the ladder is so critical, because if you don't get on the first rung of the ladder, you never climb the rest of it.

So, I think agriculture and the food sector has a critical role to play for providing initial jobs for youth in agriculture, for really helping to harness that huge potential that's coming forward.

April Thompson:

Just a call out: We're coming to the end of our half hour here together but I do want to maybe address a couple more questions. I know we've had a number of great questions come in through the chat box, so thanks to everyone for participating. And again, we'll be looking to answer those after the fact.

So, let's talk about stakeholder engagement, which, you know, inclusive stakeholder engagement sometimes gets touted as the answer. But how can that really affect change rather than just being a box checked in the process?

James Oehmke:

So, again, great question. In the interest of time, let me just say that where you have true engagement, where you have a stakeholder who can make a commitment to further agricultural transformation but also needs something in return, that engagement allows that back and forth so that you can get a mutually agreeable solution going forward with people mutually accountable for implementing the solution. And that joint implementation and accountability is going to be far easier than one person doing the heavy lift by themselves.

April Thompson:

Okay. Let's see... We've got time for one more question. I guess maybe if you could – not to end on a negative note, but there are potential negative impacts when we talk about the Green Revolution from the past and looking forward for the future of policy of Africa. What are those things that we need to be aware of in sort of moving these policy levers, and what do you see as important to mitigate them?

James Oehmke:

So, let me end on a positive note. Let me turn that around. In the context of today's sustainable development goals I think there is a recognition that agriculture contributes and agricultural growth contributes to many of these sustainable development goals, and therefore, we can have an agricultural transformation that avoids many of the negative outcomes that we've seen in the past.

An example of a negative outcome that we've seen in the past is the loss of ecological diversity, the loss of soil. We've seen the clearing of forests in some areas. But with the sustainable development goals in place, with the need for climate-smart agriculture, we're actually seeing places like Niger, really a tough country to do agriculture in, but they've reclaimed, I believe it is, five million hectares of previously degraded land through agroforestry practices, and now that's a third of their arable land. So, we do have the potential to take a little more nuanced approach, take a little second look at what are some of the unintended side effects. Now that we know what some of these are, there are ways to mitigate against them.

April Thompson:

I think that's a great positive note to end on. And unfortunately, we are out of time, but I want to thank you for your rich insights today and the great engagement we've

had online. And I appreciate everyone turning out for this. Do follow us on Agrilinks all month because we are in Food Security Policy Month and have new blogs going up every day from the BFS team. Also, do tune in for our next Agrilinks webinar, which will be June 20th on "Sanitary and phytosanitary issues in achieving the global food security strategy: Cases on Fall Armyworm and Aflatoxin." So, look out for that, and again, thanks for joining, everyone, today.

James Oehmke: My pleasure. Thanks for having me.

April Thompson: All right. Have a great rest of your day, everyone.

[End of Audio]