

2013 THE "BORLAUG DIALOGUE"

October 17, 2013 - 8:00 a.m.

Panel: *Thad Simons, Moderator*

PANEL:

DIALOGUENEXT (PART 1): CAPACITY AND CAPITAL

Introduction:

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

So good morning, good morning, everybody. Welcome to Day 2 of the Borlaug Dialogue. We're so glad to have you here. Sorry for the tight security screening, but when you have somebody as well known as Thad Simons, we have to take every precaution.

I've known Thad in his role as CEO of Novus. I have been to the events that he's organized in St. Louis, so his reputation precedes him in his role in the world of agriculture, agribusiness, animal health and wellbeing and nutrition. But I wanted to experience introduce him, because, as I mentioned yesterday in the opening, one of Dr. Borlaug's dreams is inspiring the next generation. And on the same day that I was at the State Department with Secretary Kerry announcing the names of our three World Food Prize laureates, which the day had been changed three different times, Thad was in Atlanta chairing an incredible meeting of IFAMA, which he is playing a key role and IFAMA is playing a key role. There was such excitement, such enthusiasm there for what he's doing about inspiring and bringing young people in business, getting them inspired to do that. And so it's so appropriate that he's here chairing the first session on DialogueNext, our innovation to bring young, dynamic innovators to our stage. And he's going to start the day, and he's going to conclude the day. So I've already used too much time. Please welcome Thad Simons.

PANEL:

DIALOGUENEXT (PART 1): CAPACITY AND CAPITAL

Panel Moderator:

Thad Simons

President & CEO, Novus International

Panel Members:

Jacqueline Mkindi Executive Director & CEO, Tanzania Horticultural Association

Mark Kahn Partner, Omnivore Partners

Jatin Singh Founder & CEO, Skymet Weather Services

Thad Simons

Well, as always, Ambassador Quinn is too kind in his remarks with regard to me. Just one little bit on IFAMA – that’s the International Food and Agribusiness Management Association – and we do have our conferences once a year, really trying to focus on the talent needs in terms of the agribusiness management, so the supply chain. And I’m really happy to have this panel today. And I learned here that actually Mark was one of Ray Goldberg’s students back in Harvard Business School, and Ray was the founder of IFAMA 24 years ago. So it’s a very small world, and it’s very good – we had a little discussion before about really one thing that we sort of miss in many of these conferences is thinking about the talent required actually for building the business processes and actually linking the farmers into the markets. And so hopefully having this panel of entrepreneurs and investors, we’ll be able to get at that a little bit in terms of what are those opportunities they see, opportunities they see of bringing more young people, more entrepreneurs into the space of agriculture and agribusiness, and what do they see as some of the constraints in the areas in which they are operating; what are the special conditions they experience being in emerging markets, and what are some of the needs they have identified. And of course we want to make sure we cover the gender issue as well, because I’m sure that’s a different perspective in its own right.

So just a very quick introduction, because we have a very limited time on our first panel this morning. Mark Kahn. He’s a partner with Omnivore Partners, a venture fund investing in agricultural technology in India. And so he’ll be able to tell a little bit more about what he does and also then talk a little bit more about what we were talking this morning in terms of agro-entrepreneurs.

Jacqueline Mkindi – she’s Executive Director, CEO of Tanzania Horticulture Association. They’re a body promoting and developing Tanzania’s horticulture with a major focus on flowers, fruits, vegetables, seeds, herbs and value chains across the country. And so she has a lot of experience in trying to pull those different value chains into the market.

And Jatin Singh, Founder and CEO of Skymet Weather Services, India's leading private weather forecasting and meteorological solutions company. And actually it turns out Mark has an investment in Jatin's company, which also makes a very nice dynamic. They were having a small board meeting over here in the corner just a second ago, so you can ask them what it's like to be on the same stage and think about, from a private weather forecasting company, trying to link back to farmers and trying to bring the service to farmers.

PANEL DISCUSSION

Thad Simons So with that, I want to really move it over to them, because we're here to hear their perspectives. And I really want them to first start thinking about - How do we mobilize young people? How do we get more young people coming into agribusiness and agriculture from your perspective and where you are. Each one can take a couple of minutes on that and on yourself. Mark.

Mark Kahn Happy to talk about that. I think in India specifically the biggest opportunity for mobilizing young people into agriculture really comes from the angle of technology.

One of the things that, if you look at Omnivore's portfolio, over and over again you see a common theme amongst our entrepreneurs, and that is - people who are largely trained and developed and educated outside of agriculture realizing the opportunity in agriculture and food technology and building businesses that link to their core skillsets in that space. Right? It's probably more than half of our portfolio companies.

We have a company called Stellapps, which is in the dairy equipment space. Five founders from WIPRO, one of India's largest IT companies. And what they're doing is they're making dairy equipment that is enabled with sensors, cloud and mobility, so that from the very beginning, as Indian dairy farms automate, they're taking advantage of the ability to do computing in the cloud and having smart decision tools for farmers.

We have a startup called Eruvaka, which is putting pond chemistry for aquaculture online, making it live and dynamic for the farmers that use it. And the founder there is a former electronics engineer named Shriram Ravi from the hardware industry. We have Barracks Agro with two founders from the biotech and pharma industry that is working on essentially promoting the use of pheromone traps for horticulture insect control.

And so most of the entrepreneurs that we have actually backed have been essential business people and technologists, all of them young - we tend to promote and support very young teens - that have this expertise and

have been able to channelize it into solving problems for farmers. And I think that's probably the deepest vein of talent, at least in India, that we have to tap, basically making people realize the potential to bring platform technologies, ride platform technologies to solve agricultural problems, even if they've come for a more traditional business or technology background.

Jacqueline Mkindi Talking about agriculture in the developing world, the true factor remains that agriculture is still vulnerable and faced with so many challenges. And it is the image that is actually out there about agriculture, especially in the eyes of the young people. Agriculture is a goal zone for the retired people. Agriculture is actually for the poor. Agriculture is a punishment. And this is what we have been told as long as, when we were in the primary school, that you break a school regulation or a school rule, you are given a hoe and piece of land to do the soil. So you grow up knowing that agriculture is a bad thing to do.

So what we need to do actually is to change that image and bring another visibility about agriculture. So role modeling – that is actually the best way of actually changing that image to young people. I mean, bringing those who have done it well, the best practices, and then you showcase them to the young people; and that's how we can entice them and make them do agriculture professionally.

But also apart from capacity-building programs, we have to also try to integrate leadership development skills into the technical capacity development programs or the innovations that we actually introduce to young people. Because that is how we will be able to generate future leaders or champions in agriculture.

Investment climate is also one of the very, very critical, if you want to mobilize young people in agriculture. Having the right policies as incentives for investment in agriculture; infrastructure; innovations like seeds, quality imports, and so many other factors like the transport, logistics. All these are actually the dots that need to be connected very well so that we are able to have them invest in agriculture.

Thad Simons So do you have some specific examples of where that's working in your country?

Jacqueline Mkindi Yes. We have programs, for example, whereby we have the role models in agriculture, in horticulture specifically, those who have done it, exporters, or those who are actually in other sectors intervention. And then we have investment forums, but we bring young people, especially graduates from the universities or those who are about to graduate. And then you let these people who have been in agriculture showcase their practices. And then the young people will be enticed to actually go to the ground and do it. And then you have capacity development program that

would actually enhance their technical knowledge but also link them to the required resources, like financing and other type of resources like import. And we have been very successful, at least in the horticulture industry, to bring in the young people who initially thought that agriculture was not for them but it's for the other people. But now they are actually doing it after taking them slowly through some of these incubator programs and capacity development programs.

Thad Simons

So, Jatin, how is like having Mark as an investor?

Jatin Singh

As Mark said, it's the best and the worst thing that happened to me. It's great, because you have somebody who comes with so much perspective, both local and international, and of course the monies – who's going to refuse that? And the risk-taking capacity in effectively a risky idea. You know, weather is not something that you press a button and you get it right every time. So I think it's great.

Thad Simons

And so how did you come up with the idea of having a private weather service? Where did this come from?

Jatin Singh

This comes from the fact that, where I come from in India, you only had one agency, a government-owned agency that was offering services in weather forecasting. There was and still is a major gap in getting decent weather forecasts. There was and still is a major gap in getting decent weather observations. And so actually I'm a journalist by training, and my boss always used to complain that if he had to put data on television, the data would be two days old. So how would we get around doing that? So I said I pitched to him, you know, I think I can do something about it, and I built that business, started about ten years ago. And effectively if the void is created by institutional inefficiency, we kept on working on that, so that's how we built it.

Thad Simons

And how long has Mark been an investor in your company?

Jatin Singh

August 2011.

Thad Simons

Okay, good. So we talked a little bit about role models and policies and incubation programs – I think Jacqueline mentioned that. I don't know. What in your country are you seeing in India that's happening with regard to attracting even younger, the youth into the sector of agriculture?

Jatin Singh

I kind of agree with Jacqueline. You see, at the end of the day, all said and done, agriculture has to offer value to a young person. Now, there is a dream and there is economic reality. In India still, if you're growing up and... One, I think India has become urban. It is a time that is semi-urban and semi-rural, and agricultural incomes have been augmented.

Does a large landowner or a small landowner really grow up to be a farmer again? Probably not. If the government stops throwing subsidies at agriculture, would they be able to sustain themselves? Probably not. I think fundamentally the movement that is happening is rural to urban or conversion of rural into urban, into non-agronomic opportunities.

What needs to happen is probably, with increase in food prices, it has to work that way, that when real values will start coming into the rural heartland, it's then you see an attraction. Now, when we talk about attracting young people, you're talking about all sorts of people. You're talking about people who have grown up in rural areas; you're also talking about people who go and study business in urban areas.

I see a niche activity with markets started. Before that, there was social entrepreneurship and microcredit. And also let me talk about agriculture. The other driver's energy, you know, delivering energy in a rural environment. So you see some businesses coming up. There is biodiesel, and there is rice husk power and things, but they are still niche.

I think the delivery for hardcore value is still lacking. There are pockets. For example, there are parts of Maharashtra which is the grape in the wine belt where people are very rich, people don't leave; you know, there is a direct connect with Napa Valley and everything, and it's developed. But then there are vast wastelands of inefficiency in the eastern part of the country, all across. I mean, you're talking about at least 300 million people who are effectively producing rice, and that's it, maybe one or two crops.

So I think that value is still lacking what an urban or a nonagricultural lifestyle can deliver. That's challenge is still left.

Thad Simons

Mark.

Mark Kahn

I would be in trouble if I didn't say that there are a group of us from the agribusiness industry in India that are working with Dwight Armstrong and the Future Farmers of America, FFA, to bring FFA to India, recognizing that there is a template, there is a precedent to a youth organization which mobilizes hundreds of thousands, millions of young people to make them aware of opportunities in agricultural technology, in careers in agriculture. We don't have that India. We don't. Agriculture is not taught as a subject in the schools the way it is in American rural high schools. We're hoping to change that. And some of the largest agribusiness companies in India, including Godrej, United Phosphorous, Mahindra and Jain Irrigation are behind this initiative. So we are working on that with much younger people as well.

Thad Simons

In Tanzania anything like that happening for the youth?

Jacqueline Mkindi Yeah. In Tanzania we have programs that are actually geared towards addressing some of the critical needs of the value chain. A good example is the infrastructure development program that we, the private sector, have been able to mobilize resources from the public sector. And knowing exactly that promoting critical mass in terms of the production is one thing, but then connecting that – the quality of produce that have been producing in the rural areas – to the market, that’s another thing. So we have been able to really convince our government, especially the ministry of agriculture and the ministry of industry and trade fair trade to invest in market collection centers, for example. In that way we are even ready and more comfortable mobilizing more young people, especially in the rural area, to invest in horticulture production. Because you talk of horticulture, then you have to go with perishables. If you don’t have the right handling facilities right from the production site, then you have not done it well. So that one is happening now, and we are happy that it is not the development partners alone that actually are working with us, but we have our government working with us, addressing the issues of market support infrastructure. That is very, very critical.

But also there’s another concept around access to financing, capital. We are mobilizing partnership from the ground, and we are trying to actually identify the necessary skills that actually are needed to support our young people, I mean, get access to innovative finance schemes that actually are available in the country and also in the region.

So we have ongoing initiatives whereby we identify this as a need, especially young entrepreneurs in the value chain, identify the capacity gaps in the finance context, and then we create what we call investment forums whereby we bring in the finance service providers, not only commercial banks but also those who are actually doing other types of financing, like the microfinancing and also the grants provider. And then we try to facilitate the linkage, the B2B between the young entrepreneurs and also the service providers.

But then we don’t end up there. After the prioritization, then what we do is we continue coaching them, training them on how best they can manage their financial resources, how they can come up with bankable business plans, and then we assure that they are very well connected.

So those are some of the interests that we undertake in the country as we try to bring in young people to becoming serious and economically profitable operating businesses in the industry.

Thad Simons So what role does higher education have in being a part of the solution in your country – in Tanzania first and in India after?

Jacqueline Mkindi I will refer to the agricultural universities, for instance, that are actually operating in the country, like Sokoine University of Agriculture and other

research and training institutions. We have worked with the government in trying to review the curriculum so that, when the students graduate from the universities, they are actually ready to work on the field.

But then we have some programs that we've run, we, the universities, whereby we bring in the students from the universities to work in the field as trainees or interns, so that at least, after getting the field part of it, they also have that other perspective of working in the field – what is it all about, touching the soil, or doing processing. So we have that kind of relationship between the private sector and the universities and also research and extension services. That is another area that we try to reinforce with the government institutions.

So next month, for example, TAHA is going to bring in an expert from the United States of America who is coming to review our extension service and then give us recommendations on how best we can bridge the gaps that actually exist in the extension services, especially as far as horticulture goes. So those are ongoing initiatives that are actually taking place now in the country.

Jatin Singh

India's higher education setup into agriculture is massive. Every state has a state agriculture university. My father is a PhD in agriculture. There is the Indian Agricultural Research Institute and Council of Agricultural Research. Under the government system there are 71 research institutes across the country, everything from saline agriculture to Bangalore's institute specifically dedicated to pests. Then there is equine research and livestock.

In India I think we are there in terms of having a higher educational structure. I think Mark is right. The mobilization for agriculture needs to be at the primary level. That is where people are kind of disenchanted with it. And by giving financing and technology, I think it needs to be reinforced.

Second, I'm not sure this is a politically correct place to say this. The institution system itself is extremely inefficient, so throwing more at that system I don't think is... I think there has to be civil society effectively taking responsibility of agriculture beyond government, because the government does whatever it can. And I'm not saying it doesn't achieve; it has achieved a lot, but the next stage is going to come by a combination of businesses being a big part of it. Civil society, mobilization of people, technology, international institutions, creative financial modeling – I think that's the way to go.

Mark Kahn

The problem with agriculture in the university system is that agriculture is too important of a subject to be left to the agricultural universities. I will probably make a few of the Indians in the room laugh by saying that the vast majority of the students who study agriculture in India are failed

doctors – because the same subjects in the 11th and 12th standard to become a doctor are the subjects that allow you to clear the entrance exams into an agricultural university.

So first you try for medicine. If you don't get medicine, then you try for veterinary. If you don't get veterinary, then you wind up in agriculture. So we have agricultural universities filled with young people who wanted to be OBGYNs or plastic surgeons, and that's 90 to 95% of the batch. I know when I was at Godrej as an agribusiness executive we used to recruit from these schools. And consequently I think in India specifically it's very, very important that we create opportunities for students in other streams – right? In engineering, in business, to get exposure to agriculture. Maybe it's through clubs, maybe it's through business plan competitions, maybe it's through opening up the recruiting; but you need to get beyond just the state agricultural universities because of this very specific, rather quirky twist of admissions criteria.

Thad Simons

And, Mark, your examples of the companies you're investing in were all people coming from other fields into agribusiness.

Mark Kahn

Some have come from ag itself, but the vast majority have come from other fields. What really happens is young people don't clear medicine, they go to an agricultural university, then they try to get a management job. The passion for agriculture is sometimes created in the university itself, but certainly not for everyone. And so we really see this opportunity. It's almost an arbitrage, to arbitrage India's strength and information technology in hardware, in software, in biotech, the stuff that we're actually really good at globally, and bring that into agriculture, that's where I believe India has the greatest potential to race ahead, really bring out things that are for a global audience in agricultural technology.

Thad Simons

So looking to the future, all three of you a little bit, and what do you think is going to be the most kind of changes in agriculture over the next ten years in your area, what innovation? How is technology going to change? What's going to be the most important? Here we're celebrating biotechnology; it's a big, important part of improving productivity around the world and meeting some of the challenges we have. But there are other technologies I think we would want to highlight as well here on this stage and how you see solving problems and making careers in agriculture being sexy again. Ag investing now has taken the place of clean tech – right? Now everyone wants to invest in agriculture, but, except for Mark, most of them don't have much idea about what that means in terms of how to invest in agriculture. And I think each of you have a very good perspective and from a different point in view. In ten years from now, what do you think is going to be the really, the important technologies making a difference?

Jatin Singh

Can I go first on this? I seriously believe that agriculture is undercomputed, computing both from, say, I come from weather, but sensors, bio-sensors, geospatial data. I think creation of big data, putting on a platform, making it open, allow sharing. In developing countries there's massive inefficiency because people just do not know. If, frankly, statistically, how much rice is grown in an area X and how different it is from the last ten years so you can modify your techniques or your inputs, or if a new input has made a difference, there's no statistical way of actually coming to that conclusion.

I think if we just put anything from cloud to microcomputing at the ground level, and basically throw the Internet deep and fast into the rural heartland, you'll find a lot of efficiency.

For example, we met a gentleman yesterday who was testing Google glasses. Make that pervasive, make that easy to access - just the fact that you can see something immediately and react to it - that creates a lot of efficiency, especially from a risk management point of view.

Jacqueline Mkindi

Yeah, I still believe that agriculture has a rosy future, especially because of the key driving factors. One is the increasing population, urbanization, but also because of the increasing demand for food. So the innovation that is coming about with that includes the technologies like climate's smart use technologies. They use irrigation, for example, is one of the technologies that is not anymore the domain of the developed world, but you go to the villages today, you find that farmers, smallholder farmers in the rural areas are actually applying irrigation technology. These are the types of technologies that are actually coming up, and they are being used by farmers across the countries.

There are other types of technologies like the communication technology, the ICTs. There are farmers in the rural areas, they own mobile phones. So it's easy for us to communicate with them, give them information about weather, about market prices and things like that. So these are the types of technologies that are actually coming up now, and we are using them to communicate with our stakeholders.

And also the use of postharvest handling technologies - we have different ways of making sure that the food is produced but is properly handled, especially in the rural areas. We don't actually promote the use of fancy technologies anymore which are actually used in the developed world, but we have our own ways of actually institutionalizing some of these technologies for use by farmers in the rural areas. So postharvest technologies, irrigation technologies, communication technologies - these are some of the technologies that are actually coming up.

Mark Kahn

I'll start by saying that I wholeheartedly agree with Jatin that big data is one of the greatest themes to be played out and one of the great leveling

forces in agricultural technology around the world. I think in India specifically there are kind of three big areas that we are currently investing heavily in. One is agricultural mechanization, and that is going beyond tractors and sort of beyond basic metal fabrication. How do we create smarter seeders, smarter harvesting machines, smarter sprayers and critically smaller – because largely the technologies that have been developed in the West are for a much higher horsepower situation than you find in a country like India, or for that matter China or Africa.

And so you need to really relook at those mechanization technologies, and they are incredibly critical because we are watching the vaporization of labor in agriculture in India. People think of us having a labor surplus – we don't; it's gone. And as farmers push their children off the farm for education and jobs, mechanization is a critical need of the hour.

The second area that we are very bullish about is protected cultivation, and that is much more than just the traditional greenhouse. There is huge scope for small, modular net houses, small tunnels, anything that puts a wall or a membrane or a net between open field agriculture and the savagery of nature is something that we think is very important, and ripping down that cost curve to make it ubiquitous in India is something that we're working closely with an entrepreneur on right now in a deal that, God willing, will close any day now.

And then the final area is essentially - we talked about postharvest. I think that something that we're very confident in is that India cannot port in heavy infrastructure approaches, emulating the United States, for solving its supply chain needs – right? In a country where most grain moves in 50 kg gunnysacks and we don't have power in large parts of the country for two thirds of the day, we can't just bring in a traditional grain supply chain, a traditional cold chain. And it's not just a matter of throwing money at infrastructure. It's a matter of changing the infrastructure to suit the environment it's in.

So the Argentinians and the Brazilians and the South Africans went to silo bags, but those are still 200 tons of grain. We need to somehow come up with a five-ton silo bag that works for an individual farmer so that he can hold the grain without spoilage on farm. We need a cold chain that is flexible and adaptive. There's a startup, not one that we support, but called Promethean Power, which has worked on basically how do you take advantage of the four hours of power a day we have in villages to chill milk.

So those sorts of flexible solutions are really what we're looking at.

Thad Simons

So, Jacqueline, the last word with regard to women in agriculture. I'd like to close with how you attract more women entrepreneurs into agriculture.

Jacqueline Mkindi We always appreciate the role of women in agriculture. And in horticulture we talk about 65% of those in the value chain being women. But then when you assess where these women are across the value chain, you find that the majority of these women are actually in the beginning of the value chain. Then when you go to the middle of the value chain, you find very few women. And then you go to the end of the value chain, you hardly find one woman actually at the end of the chain.

So what needs to be done now is to continue building the capacity and power into these women, bringing them visibility of other opportunities that are actually available for them across the value chain. So that is very, very critical. And also making sure that women in agriculture get access to resources like land, water, and also financial resources. But also it is the question of capacity development and access to innovation in agriculture. That is very critical.

I also talking of leadership, leadership in agriculture. That is also where we experience some challenges. As a CEO of TAHA, for example, informal interaction with government leaders is one of the fastest way of addressing some of the challenges. But then we face some sociocultural barriers. When I'm seen interacting with a minister beyond the work hour, the perception is somehow negative. But my male counterparts, they can easily interact with the presidents, the ministers. So we need really to - and I'm expected to deliver equally as my male counterparts. So we need to actually break this yoke and ensure that women can also offer services just like the male counterparts and have to be perceived positively in the society.

So women have a critical role to play. We just need to continue engaging them properly and also make sure that their capacity is very well enhanced.

Thad Simons Well, thank you very much. I think you've been a fantastic panel. I think you've brought a lot of passion into what you're doing and show leadership in terms of how technology will get to the farmers and how the farmers will reach the markets and young people and the youth will be able to see great opportunities for careers in agribusiness. So thank you all for joining us, and thank the audience for joining us this morning.