CONVERSATION: PROMOTING SMALLHOLDERS AS ENTREPRENEURS AND INNOVATORS

October 13, 2010 – 3:00 p.m.

Louise Fresco – Professor, University of Amsterdam

Before starting with the panelists, who are of course the most important ones, I think you must have been as heartened as I have been to hear all these wonderful experiences — and every time with all the speakers, starting from Mr. Buffett, Prabhu Pingali, who I know very well, and the panelists and now these panelists — every time I heard them speak, I thought, "Exactly; I could have said the same thing."And it's a wonderful feeling that we are so much in sync and harmony in this way. I think there is a real movement now not just towards agriculture and investing in agriculture but also to giving the smallholder farmer his or her role, this important role in agricultural development.

On a personal note for those of you who know me and who do not know me, I have spent most of my life in the public sector and mainly in research and research and policy; only recently have I started to work on partnerships with the private sector. And in fact when we were starting to prepare this session with Ken Quinn, I was very much in favor of the subject of entrepreneurship, which is really the focus of our last session today. The reason was that I just came back from two wonderful experiences last year that both had to do with my combined roles in the private and public sectors.

As you probably know, I am the non-executive director of the Rabobank, which is the largest cooperative bank in the world and the only AAA cooperative bank. And we run a program in Tanzania for small farmers, which is not a micro-finance program; it's not a subsidy program. It's actually a program to provide secure financial services to farmers, particularly women, in rural areas.

I have seen places where women, for the first time, actually, saw a teller machine, in the middle of nowhere in Tanzania, which actually had money coming out of them. And that was the first time that women farmers could be sure that they could put money into a machine and it would be safe in a bank account and that they could get it out themselves and not having to hide their money somewhere in their bedroom where it was at risk of being stolen or being misappropriated, even by husbands and other family members. It's a small thing of secure financial services in combination with, then, later, a program to provide them with vouchers so that they could get the inputs before they actually had the money that they earned from their harvest. It actually changed that whole area in central Tanzania.

My other experience last year was to go to India and look at a program there, which Unilever, where I'm also a non-executive director, put in place to sell disinfectant Lifebuoy soap – which is the most simple soap that they have been making for the last, I don't know, eighty years, this disinfectant soap – and to sell it to cooperatives of women farmers, women consumers, for less than a rupee, a package of several soaps, which they then sell through to other women. Why is that so important? Because these people are outside the markets; they're outside normal channels. And it's only groups of women who can actually reach one another.

But in both cases what was so important was not the fact that poor farmers who were women were reached, as such; but it was the fact that it was the entrepreneurship – that some people, even in such simple conditions often without the possibility to really have any schooling, thought that there was a market opportunity. It convinced me, on top of everything else I've seen in the last few years since I left FAO, that entrepreneurship – that "je ne sais quoi," as we say in French, that special feeling that there is a chance on the market and that you have to grab it, however small; less than a rupee for a piece of soap – that that is worthwhile working on.

And hence we will use this session now to really go in some of the details of: What does it mean to be a small farmer and be able to find your way on the market? What kind of experiences can we use? What can we learn? What are the lessons learned? I hope this session will be as upbeat as the other sessions we've had today. So my first speaker is Marco Ferroni, and I'm going to do the same thing – not having coordinated myself with Pedro, of course, but we don't really need that – I'm going to do more or less the same thing. I'm going to ask my five speakers to actually briefly speak to the subject in the way that they want, one after the other, and we'll see whether there is anything that comes out of there we can use immediately. Then I'll give the floor to all of you in the audience, and we'll see where it goes from here.

Marco Ferroni, as you know, has taken over from Dr. [Andrew] Bennett as the head of Syngenta Foundation. And I must say Syngenta Foundation has been most instrumental in working with a lot of us right from the beginning in the CGIAR, in agriculture research, in making some of these issues of bridging technology and the small farmer actually possible. He is a Swiss national, and he has worked very much in these areas of agricultural development and research, and we're very pleased to have him here. So, Marco, you have the floor. You have a microphone in principle next to you, and please have a few minutes to introduce yourself and the program and your ideas.

Marco Ferroni – Executive Director, Syngenta Foundation

Well, thank you very much, Louise. With that introduction I'm not going to introduce myself. But I will say that, yes, I run a foundation called the Syngenta Foundation for Sustainable Agriculture, and what we do can really be summarized in three words: smallholders, productivity, and markets.

And those things have everything to do both with the theme, I think, Louise, of our conference, which is *Taking it to the farmer*, which is an extremely well-identified theme, and I'd like to congratulate Ambassador Quinn and the Advisory Board for having chosen that theme. And it also has everything to do with the theme of this particular session, which is *entrepreneurship and innovation*.

And farmers, wherever we go — and we do a lot of work directly in villages with farmers on the ground, in what we call "growing systems projects," where the basic common denominator, the basic thing that is being done by the partners that we work with, is basically extension and linking farmers to markets – one sees that farmers are innovators, that they are eager. I could give you many examples of improved agronomic practices that I've seen as recently as last week during a field visit to one of our partner organizations, the One Acre Fund in Kenya, where it is very evident. For example — and I'll just stick to that one example – how shifting from broadcasting of seed to line planting, in the case of maize and other grains, can lead to very sizable increases in yields and income.

The question, therefore, is not, What is the predisposition, the DNA of farmers, irrespective of where they are, irrespective of their size, and irrespective obviously of their gender? The question is, What are the support services that they enjoy or don't enjoy that enable them to be really entrepreneurial?

And I'd like to submit for consideration by all of us in this session that for farmers to be able to become really entrepreneurial, three things are needed — and again that is irrespective of where they are, how big they are, and so on – and those three things are: technology, services, and access to markets.

I can say a lot about each of those three elements, but the more I work in this area, the more I think the real, driving element and the direction of causality towards engendering success in terms of sustainable agricultural intensification, greater food security and greater incomes, begins with the market question.

We can increase production anytime through the right kinds of approaches to extension. In the previous panel somebody was mentioning the topic of knowledge. Knowledge is actually, as a matter of fact, the first binding constraint. You want to bring science-based, external knowledge together and into the farming systems where locally developed knowledge is being applied — and those two types of knowledge need to be married. But the real issue in the end has to do with links to markets, both on the input side and the output side, and I can elaborate on that later.

Louise Fresco

Thank you, Marco. My next speaker is Eleni Gabre-Madhin, and she is from Ethiopia, and she is a really remarkable woman. Not only has she worked her way through the U.N. system and all the way up to IFPRI, the World Bank, but she has also come back to Ethiopia in 2008 and founded the Ethiopian Commodity Exchange as an effort to really get stable and decent prices for Ethiopia's farmers. And that's a remarkable initiative of which there are very few in Africa. So we're very happy to have you here, and please share with us your knowledge and experience.

Eleni Gabre-Madhin – CEO, Ethiopia Commodity Exchange

Thank you, Louise, very nice remarks, gracious remarks. I come from a country where we take agriculture very seriously and have made impressive gains, I believe, over the last decade, increasing tonnage per hectare from 1.5 tons to 2.5 tons in the case of maize; quadrupling the application of fertilizer [from] 200,000 tons countrywide to, last year, 830,000.

However, as has been said now for many of the last few speakers, we still have an overwhelming market concern that I am trying to address. On the one hand, when we look at the last ten years of maize prices — and this can be said really across the board for all of the major products — the amount of inter-annual, year-to-year price volatility is the order of 50 percent. This is the highest price volatility, I'd say, probably in the world and, in general, I think we can say, in Africa. But we are expecting our farmers to grow yields, expand production, adopt technology, facing risks that no other region in the world and in no period of history have we expected farmers to bear.

In 2002 Ethiopia had two consecutive very good harvests, farm harvests, and prices were collapsing. I was then at the International Food Policy Research Institute, and I was asked to go to Ethiopia and consult with the government on what could be done. This was December 2001 actually, after an 18-month continuous decline in grain prices, and I remember just before Christmas I was in Ethiopia and the chief economic advisor said, "We seem to be facing the failure of our success." And somebody said that today. So we're growing output and have increased output considerably over the last couple of years, and prices have collapsed nearly 80 percent in production areas.

So I flew back to Washington, trying to look at what had been done in Asia, and as it happened, Professor Norman Borlaug was at IFPRI for one of our sessions. And so I went up to him — I'd never met him before — and I said, "Professor Borlaug, how did you do it in Asia. How did you avoid price collapse?" And he looked at me and he said, "We didn't worry about the market back then." Well, the reality is that in Africa now we do have to worry about the market.

And so that year, 2002, prices continued to collapse. At IFPRI, we were looking at different solutions – how to export it rapidly and so on. And in July 2002 Ethiopia announced an emergency food appeal of 300,000 tons [for] 14 million people under risk of starvation. This was really due to the fact that, in that year, prices had collapsed so much that it was just not profitable for farmers to continue adopting fertilizer, and there had been a 27 percent decline in fertilizer consumption that year – in addition to, of course, the weak rains in different parts of the country. So, really, this price volatility is one aspect of the story.

The second is the contract risk, a huge contract risk, the risk of contract failure, high transaction costs. I like to tell a story of a gentleman, a trader called Abdu Awol in the western part of Ethiopia, who in 2002 took the maize from this surplus area that he was based in, and he had heard that there was lower prices that were going up in the northern part of the country in Tigray, which is traditionally a very significant deficit area. So he ventured out, he called around. He found a trader, somebody, a phone number. Somebody finally got him in touch with somebody about 1,000 kilometers away. He called up and said, "I have some maize, good price. Can I bring it?" And the gentleman said yes. So it took him about two weeks — this is a real story — took him about two weeks, 900 and some kilometers, many, many road stops, and he got to this town, Mek'ele, in the north of Ethiopia, and he went and he found this trader. And he said, "Here's the grain, I've brought it." And the guy said, "You know what? I don't like this grain. It's bad quality. I already found somebody else at a better price. So either you sell it to me at half the price that we discussed or you forget it." So this gentleman actually went out of business because of that attempt to move grain from a place where prices were collapsing to a place where prices were rising significantly.

So these two things, really — the price volatility and rampant contract failure — are what motivated me to engage in trying to set up markets that would work for farmers, and also for traders and for processors who need to buy grain in reliable quantity or any quantity, also for exporters.

So in the process of trying to build a market — I think we've said it many ways today, but I'll repeat it again — it's not just about the incentives or the micro-environment. It's about putting in place institutions, grades and standards, information systems, warehouse receipting, and so on. It's also very much about infrastructure, and I've realized that more and more as we've gone down this road. And it's not about roads per se (of course, roads are critical), but it's about storage infrastructure and telecommunications that will fuel this market initiative.

So what we've been doing for the last two years is building a commodity exchange, which I think is unique in one very clear way, which is that it's a smallholder-oriented exchange. So our lot sizes are very small. We have a very aggressive market reach to get to farmers and engage with farmers. Right now we have 12 percent of our membership in the exchange made up of cooperative unions, which represent 2.4 million smallholder farmers. And what we're seeing really is that if you have a reliable mechanism – there's no handout; I mean, the market all of a sudden, by having an exchange, doesn't mean that somehow there's a price subsidy that's going to filter over to the farmers – it's about returns to assets.

And let me tell you another quick story. We've been trading a lot of coffee as well as food grains, and the Oromia Farmers Cooperative Union general manager told me this story. That union has 200,000 small farmers in it; and the farmers, because they were looking at the price display boards and hearing the coffee prices on the radio, came to the manager and they said, "You know, the price that we are getting now, we realize, is a Grade 7 on the ECX system. So why are we getting a Grade 7? Because we can see that there's a Grade 2 that is 80 birr per bag higher, and we want that 80 birr premium." So he said, "Well, this is what you need to do." So they took out the standards, and they combed through and they looked at the level of impurity requirements and so on, and the farmer said, "We'll do that. We'll do what it takes to get that higher grade because we want the 80 birr."

So over the last 18 months that we've traded, we've traded about $1 billion of commodity. We've traded that without any contract default, without any payment delays, without any order errors. Really, on a performance basis, I think we've proven that this model can work. But very importantly, what we've seen over these 18-20 months – if we compared December, January, February of '08 to the same period in '09 last year – we saw a tripling of the share of coffee that was coming in at the top grades, which means that a lot more farmers were getting better prices and putting more money in their pockets and willing to invest in that labor.

Now, I hesitate to say this in this group, because I know extension is important, but those things that they did have been known and been told to them by the extension system for the last 20 years. But what did not exist is the market returns in a clear and transparent way – that if they did those things, the market would actually reward them. This is not to say extension doesn't matter, but it becomes really a big partner of our system, that the message that we need to get to farmers through the market is the same that the extension system is giving them.

So I guess in just summarizing what I think we need to do to promote this entrepreneurial and innovative spirit of farmers, is to first of all think of farmers as those people that are aggressively trying to get that 80-birr premium. There's nothing about a handout that we're talking about here. If we do think of markets as returns to assets, then what are the assets that we need to build in smallholders? Because smallholders are small, as was said earlier – because of either their landholding, but also because of their capital holding – and also because of the smallness of, perhaps, their knowledge and know-how. So small, if you view it in all of those ways, then I think the appropriate intervention, alongside the building of our market and markets in other places, is to build up those assets – to build up the ability of farmers themselves to know the quality of what they have, the quantity of what they have, and to be able to store it. For us the next chapter is to build the capacity of smallholders to get more capital, financing — so that's the financial side — but also basic scales, basic quality-screening equipment at the village level, and basic storage sheds. These are things that I think will transform the way farmers interact with the market.

The second is to build their human capacity, their human capital, their human knowledge, their know-how to use this market — what a warehouse receipt is, how to look at the price boards and think of forward contracts, and so on.

The third is financial capital. We are in the process of launching a warehouse-receipt financing system. We've gone into an agreement with IFC to underwrite some of the risks that banks face, because this is a whole new area of lending that hasn't existed in the rural arena. So you have micro-finance, very small credit, and then pre-export finance, but a vast "missing middle," which is domestic, post-harvest trade and processing finance.

Those are things that I think matter, but the last is always going to be what Ajay was saying earlier in the last session, which is organization of capital. So in addition to financial, physical and human capital, I think we need to invest in better ways to organize these very small units into more viable market agents. It can be done. We're doing it. And I think that's really the story that I'd like to tell you.

Louise Fresco
Thank you very much, Eleni. That's very heartening. And next to you is seated somebody who is a small farmer and both a contract farmer and an export farmer. We're very happy to have Rajesh Kumar with us. He is a farmer in Tamil Nadu. He has experience on the ground of how this works.

And I'm particularly happy, I must say, that you are a horticultural farmer, because it is indeed true — and somebody from the University of Davis mentioned this in a discussion — we tend to forget that there is a sizable portion of small farmers who actually grow horticulture crops with special needs and special demands in terms of funding, in terms of risk, in terms of the supply chain. So can we have some of your experiences that you are willing to share with us, please?

Rajesh Kumar – Farmer, Tamil Nadu, India

Thank you. First of all, I would like to thank World Food Prize and the Truth About Trade and Technology for giving me the opportunity to speak here. What I'm going to talk about is how a small farmer with a little bit of entrepreneurship and innovation can come from a small village in India and Tamil Nadu state to the World Food Prize for this occasion.

To give a small background about myself, we had a small two-hectare farm in a small village, so I did my school there, and I went to college to do my degree in business management. And I went for a job also after that. But that didn't excite me much, and I thought there was still a lot of opportunity in farming. Many people were leaving this farming business and people who were well-educated went to the cities to work and take up jobs. But I thought farming in India had a lot of opportunity, and I came back and started on my two-hectare farm and experimented with different kinds of horticulture crops. Being on a small farm, I couldn't grow much crops, which could be done on a large scale, and [instead] went with horticulture crops, growing vegetables and fruits. Doing this experimentation, one crop which I thought would have a lot of potential was corn – sweet corn. That was a fairly new crop in India. For the past seven or eight years we have been having this crop, but before that it was not there. And we did a lot of experimentation with that crop, and we started cultivating on a smaller scale. And the farm has been expanding; the market was very good for that crop.

The point is how we were able to sell the produce to the consumer. Initially, being small, we happened to sell it directly to the consumers who were nearby. And when we started, the market was good for that, [with] big cities, larger cities nearby, led to the concept of kiosk, a vending kiosk where it would be manned by someone to man it. And through it – we used it to sell sweet corn, both fresh sweet corn as well as grilled and steamed corn. This is how we started – with one. Now after being in the business in for the past five years, now we have about 450 kiosks throughout the southern part of India. And after that we were able to start the processing of the corn oils, the corn kernels were packed for a longer shelf life. And the landholding also of mine, some two hectares, it has been now expanded to 40 hectares now, and the growth was also there.

One, another thing was about the contract farming, which we did. Now we are doing it among nearly 350 farmers, three and four hundred acres — the contract farming is going on, where we give them inputs, and we buy back at a fixed price, and we market it. In this way, all the constituents have benefited: Farmers have benefited because they have a good, consistent price. The consumers are benefited that they get a good produce at competitive price. Another thing is that the kiosk again is managed by students, college students who study in the morning, and evening they come and take care of the kiosk. So in that way there have been students that have benefited by this small model. And since we started with the sweet corn, now we are trying to come out with other produce, which can be sold in the same pipeline. Many produce also can be sold in the same way. These are a few things which I wanted to share with you people.

Instead of just depending upon the government sector for us, or other people to help us small farmers, we should take the things in our own hand. Government help is needed in many ways, but still it is finally up to us to take how much of whatever we want and how much of what we can do. Thank you.

Louise Fresco

Thank you very much. Thank you, Rajesh. Next we have Shivaji Pandey, who has a very long experience as a scientist and as an international dignitary, I can say, working now at FAO as the Director of Plant Production, but before that at CIMMYT, with extensive experience. I actually don't know anybody who has really that much in-depth knowledge of all the continents of the world where agriculture takes place. So, Shivaji, what from your perspective are the kinds of essentials that we need to know and where we have concrete and positive experiences in this area of entrepreneurship and agricultural production?

Shivaji Pandey – Director of Plant Production, UN Food and Agriculture Organization

Thank you, Louise. Now I know why you hired me at FAO after those words.

Louise Fresco

I was guilty of stealing him away from CIMMYT, I must admit.

Shivaji Pandey

Before I answer that question, I want to thank the organizers of this event and also this panel for giving me a chance to be a part of it.

As Louise just mentioned, I had the privilege of working with Dr. Borlaug for some 30 years of my professional career, of it more intensely during 1996 to about 2003-2004. And most of the time that I would talk to him and listen to him, I would get this message: "Don't be timid. Do whatever you have to do. Say what you have to say. Say it boldly. Do it. Take the technologies to the farmer. A scientist's job is never done until it makes a difference in the lives of the farmers." So when I heard that his last words were, "*Take it to the farmer*," I thought that, one more time, one last time, he was again telling the scientists of the world, the policymakers of the world: "Don't be timid." *Take it to the farmer* — that was the lesson. So thank you very much for giving me a chance to be a part of an event that carries his name. I am really delighted.

This panel, this forum, has to do with seeing the smallholders as entrepreneurs and innovators. I sincerely believe that smallholders are entrepreneurs and innovators. There isn't any question about it. All of them think, plan, plant, harvest, eat — if there's a little bit of it left, they sell. And they do it under the circumstances, as Prabhu Pingali was saying, of shortage of labor, shortage of input, climate change, corrupt governments, no markets, very little support from anywhere. I sincerely believe that many of us experts in this room, and beyond this room, would simply not be able to make the kind of living those so-called smallholders do, on less than two hectares of the land that they farm and under the circumstances they do it. We must pay a tribute to them that, in spite of all that, they produce more than half of the world's food today. So they are entrepreneurs and they are businesspeople; they are innovators. They wouldn't be doing that if they didn't have that capacity.

Prabhu Pingali mentioned five different things that we can do to make more farmers, more smallholders, become better entrepreneurs and better businesspeople. The sociologists, economists, I think, call that "creating an enabling environment." All those five points I can summarize in just one sentence: Just make it easier for them to produce and sell, and get out of their way. The rest of it, they will find a way to take care of. Make it easier for them to produce and for them to sell, and that's it.

There is one of the five [questions] on which we were to think about and talk was: Now that it looks like there will be a lot more money going to agriculture — I hope there will be, but we still don't see a lot of it out there, but the expectation is it will be there — what can we tell the governments and the donors, the international community, what to do right this time? So I would like to make maybe three proposals on what we can tell them this time.

First of all, I would like to say: With that extra money, invest in local institutions and people. Build their capacity so they can take care of it themselves. For the last 25 years or so, there has been a serious decline in the national capacity to take care of food-security issues in most of the developing countries, probably except, to a maximum, three out there. So, please, when you $1 million, look at it and say, "How much of it is going to those developing-country institutions and people, and how much is going to your own institutional salary and benefits?" And invest in them.

The second thing that I think I would like to say this time is, "Walk the talk." Don't just criticize that this country is corrupt, this group is corrupt – but walk the talk, seriously. Lead by example. Not much of that is happening. Deliver on the promise. Earn the right to criticize first before you criticize.

And finally I would simply like to say that the smallholders of this world have been ignored for too long now. And in spite of all that, they are doing very well, thank you. And if you do get that extra money this time, please don't disappoint them. Thank you very much.

Louise Fresco

Thank you. Our last panel member is Kamal El-Kheshen, who has spent his entire, very distinguished career at the African Development Bank with a stint also at the African Import-Export Bank, with special responsibility for many things, including agriculture, agro-industries, fragile states, and a whole lot of things.

So we're really, really curious to what from your vantage point as a banker you see one needs to offer or one should offer to small farmers to really become entrepreneurs. Please, you have the floor.

Kamal El-Kheshen – Vice President, African Development Bank

Thank you, and if I could start by saying that I'm both very pleased and very honored to be here and to be able to first of all listen and learn from what's being discussed and what's been presented by different people, and also to share a bit of our own thinking and to use agriculture in general and smallholder agriculture in particular.

Let me first take a minute or so to tell you, just to put things in context, the African Development Bank is the largest financial institution – sorry, the largest development financial institution – in Africa. Its capital is about $100 billion. And today as we speak, in our portfolio of projects, agricultural projects are the largest proportion of our portfolio. However, that's a carry-over from a previous period. Many of these projects are fifteen years old, and those were designed and implemented by the time when the bank was very big in support of agricultural production.

Over the last few years, there's been some developments on two or three different fronts. One, development thinking at large – some of those present might be aware of the Paris Declaration and the Accra Agenda for Action, which have shifted the focus of development to work to be based on country priorities, as defined by the countries, and on using country systems – so for the whole world, development has undergone the change from the development institutions going and telling the countries, "Here is what we believe you should be doing, and this is how it should be done, and why," and so on, into, "Let us know what your needs are, and we'll see how we can help you address those needs." So this is one.

Two – over the last, particularly over the last four or five years, because we work on the basis of strategies for specific periods and then we adjust the strategies based on the realities, we at the bank have taken a strategic decision to try to get out of areas where there already is enough sufficiency and adequate support by others and get into areas where there isn't enough support, so that the totality of the support coming from others plus us would have a bigger impact. Just to demonstrate and give you an example, we are completely out of HIV/AIDS with the exception of one small project, which is remaining. We had a lot more projects previously, because there are so many other organizations which are doing HIV/AIDS projects in Africa. However, we're getting into, right now we're at the very advanced stage of getting into supporting the development of HIV/AIDS vaccines for Africa, which is an area for which there is very little work being done by others. So that's just to give you an example of our approach.

So on agriculture, the implication has been that we've gotten – again with the exception of the projects that we have with us from as far back as 15 years ago – we are now doing upstream and downstream projects for agriculture. We're doing, for example, irrigation schemes in a very large way, particularly for smallholder agriculture. We're doing markets, market infrastructure. We're doing weather information systems, rural credit, improved inputs, seeds and fertilizer and so on; markets, infrastructure, feeder roads to bring in the inputs and take out the outputs, and so on and so forth. So it's mostly upstream and downstream activities, as I said, because there are so many other institutions which are supporting production.

Which takes me to the way we look at agriculture. Agriculture still remains to be, outside of the oil- and mineral-exporting sectors, the largest economic sector in Africa. And we consider it to be a very important sector, particularly because of the implications regarding food security. So therefore our activities aim at ensuring larger food security and also ensuring that there is enough surplus to be exported and increase the forex receipts of African countries. That has particularly been brought into focus when we saw the "3F crisis" over the last few years — the fuel, the food [and the financial] crisis – and we've had a lot of support to the African countries under what we call the African Food Crisis Response Initiative, where we wanted to ensure that there is enough food security for various African countries.

So that takes me now to the smallholder. We believe that the smallholder and the other modes of production are both equally important for African agriculture. Our philosophy is that the support we give to the smallholder is to help him, or rather her – because we know that much of the work in smallholder agriculture in Africa is being done by women, in some cases up to 80 percent – to try to commercialize that and turn them from subsistence to surplus, for using farm businesses where we can market their products and receive financial revenue for the product they're producing.

In that regard, we strongly believe that what the areas in which we need to focus are micro-credit (we're doing a bit of that); the markets, as I mentioned; of course, policy formulation, because without the right policies in place and the capacities, both at the smallholder level, at the mid-scale level, and at the government level, both for policy formulation, for advocacy work, and for implementation — without these in place, we don't think the objectives we hope to achieve will be easily achieved; and then of course finally we also work with them in terms of assisting and supporting the farmers to cope with the changing environment, be it viewed to climate change, be it viewed to price uncertainties; and in that regard, again we are working with some other organizations like the World Food Program. We are looking currently at ways to try to introduce an element of crop insurance so that it takes the uncertainty out of the equation for the farmers.

So this is basically the way we look at the agriculture in general and smallholder agriculture in particular in Africa currently. Thank you.

Louise Fresco

Thank you very much. This has been a very good start of the discussion. And there's actually one thing I think that combines your various inputs, and that's a word we haven't pronounced very much today at all. You just mentioned it. I think the key issue that is so important to distinguish small farmers from any other type of farmer, although it is true for all farmers, is the issue of risk. The smallness is in the fact that small farmers don't have a buffer to deal with risk very well — price risk, weather risk. Indeed, insurance is probably one of the key issues and certainly the one that has saved farmers in Northwestern Europe from many of the issues of volatility. And to put the word risk in a different context — a great disincentive and, hence, a great additional risk for farmers, for small farmers, is the disincentive of price volatility. So risk and volatility insurance are essential elements. Farmers cannot benefit from markets, from governments that indeed have to get out of the way, from good contracts, if there is not something like a buffer for risk.

So there is much that has been said, but I think this issue of risk is a really, really important one. And what we have learned from everywhere is that small farmers have as much risk appetite as any other type of farmer; they're no different [except for] the buffers. Their risk to run risk is even smaller.

So what I would like to do now is to ask the audience if you have some questions. Before I'm going to give the floor to the panelists, I would like to collect a couple of questions and then give the floor to the panel to respond where necessary. So we can take about four questions now, and then we'll see whether we have time for a second round. So who can I give the floor? Please state your name and state a clear question.

Question

Dr. Alan Koslow from Des Moines, Iowa. I was struck by how actually what I'm hearing today is very good for arguments against the political party in the United States that wants to cut foreign aid. Because what I'm hearing, and I'd like you to talk to this as a message, is that actually the smallholder farmer is actually the entrepreneur, like you say, and it's a free enterprise system, rather than a handout. And so it seems like what you've established today is an excellent argument for the Tea Party people in the United States that we're promoting free enterprise.

Louise Fresco

Okay, that is a comment as much as a question. We'll let the panel react later. Any other comments from the floor, questions — everything you always wanted to ask but never dared to ask about agriculture and small farmers?

Question

This is to take your point about risk management — a question particularly for Dr. Gabre-Madhin. First, congratulations on your remarkable achievements with the [Ethiopia] Commodity Exchange — it's fantastic. I'd be interested in your thoughts about the barriers and challenges for the commodity exchange doing two things for improving risk management. One is providing working capital to the small farmers in context with their forward contracts for purchases as collateral. And secondly, what are your thoughts about weather-indexed crop-failure insurance? And if you're not doing it now, what do you need in order to be able to do it?

Louise Fresco

Okay, thank you. We'll give Eleni the floor in a minute. Yes, please, the other microphone.

Question

Yes. I'm Jaleh Daie. I'm representing CRDF Global. The question that I have is specifically directed at Dr. Pandey, and I hope the rest of the panel would contribute to any comments they may have. Dr. Pandey, you mentioned three very important priorities in order to advance the cause of the small farmers globally. And the first one you mentioned was investing in institutions and people, local institutions and people. I cannot agree more with you, and as a fellow scientist, I would like to hear from you what you see as the role of science and technology, and what we can do at the global level to make sure that there is enough science and technology advancements at local institutions.

Louise Fresco

Okay. Thank you very much. The back microphone again.

Question

Russ Freed, Michigan State University. With the increasing role of supermarkets and their demanding higher-quality products, how do we make the resource-poor farmers around the world more competitive with the resource-rich farmers that seem to have a competitive advantage over this big market that's emerging around the world?

Louise Fresco

Super. Thank you. That's indeed an important dimension. I have room for one brief, good-sized question — yes, please.

Question

Thank you. I'm John Joseph Otim from Uganda. I still would like to ask question about mechanisms being put in place to reduce risk for the smallholder farmers because banks fear [to] deal with smallholder farmers, they say they're high risk. And secondly, I would like to ask African Development Bank: What mechanism do they have of reaching the smallholders directly in terms of financing, rather than going through the public sector, where money does not easily reach the smallholder farmers?

Louise Fresco

Thank you very much. Okay, so we have questions about, or a comment about, foreign aid and liberalization, about risk, about insurance, about supermarkets, about technology, about how to reach the small farmers. I'm going to give my panel a go at this from the other side, if you agree. So, Kamal, can I give you the floor first?

Kamal El-Kheshen

Okay. In terms of making credit available to small farmers, smallholder farmers, we have already schemes in place, and they're running in a few countries whereby we provide support to certain civil-society organizations and certain farmer groupings. I've got here, for example, some data about projects in Mauritania where we have a Small Entrepreneurs Loan Facility. We have a similar one in Tanzania and then a few other countries. These also help them to set up agribusiness-support networks. They help to look at the issues of post-harvest losses, which is again another important priority area for us, both in terms of soft and hard infrastructure.

Louise Fresco

And this goes directly? Because the question was really, does this go directly to the farmers or does it pass through the government?

Kamal El-Kheshen

Well, we cannot work directly with the farmer because we cannot work with a thousand farmers, for example, but we work with farmer groupings, as I said, civil-society organizations and so on. So in other words, we attempt to cut the number of layers within us and the final beneficiary.

This is one. Two, in terms of – I'd like to also assure everybody here that, in terms of working through either public-sector banks or private-sector banks, we have very strict conditions in place. And we monitor the use of the funds which will provide the lines of credit and so on, which are designed and aimed at the SMEs, in particular in agriculture. For example we've launched an agriculture support fund which works uniquely, strictly with the private-sector organizations, does not go through government or public sector banks — it's up around the $1 million front. So that's my response.

Louise Fresco

Thank you. Shivaji, a few comments. You don't need to respond to all the questions, obviously.

Shivaji Pandey

Thank you. I'll only respond to the one on the role of science and technology. First of all is the technology-policy interface that's essential for food security in the world. Policies alone are not going to be enough to feed the world. There have to be technologies. And today, if land per capita is going to be from 4.3 hectares in 1960s to something like 1.5 hectares in 2050, productivity growth rates of most of the cereals going from 3.5% a year in the 1960s to less than 1% or 1% in 2050 – there is ever more need for technologies, better technologies, to be produced and policies to support development and deployment of those technologies.

So when Prabhu Pingali was talking in his speech about, literally, decimation of extension service in developing countries, I was thinking of some data that FAO has collected, which clearly show that agricultural-research capacity in developing countries has also seriously deteriorated in the last 20 to 25 years.

Only in two countries it has gone up. Probably there is one country where it is at the same level as where it was in the '60s and '70s. Everywhere else it has gone down.

So that phenomenon that we saw that in the last 20 to 25 years, of governments and donor agencies ignoring agriculture, deprioritizing agriculture, has had a tremendous impact on the research and education in agriculture in developing countries. And you can talk about it as much as you want; you can talk about everything else. Unless you address the research capacity you are not going to solve the problem. Today already less well-prepared people than the people of the '60s and '70s are conducting agricultural research in developing countries, and they are training the new generations. And so we are going in that circle.

So my recommendation is that, while we are paying attention to all those other things, other areas for capacity building to ensure global food security, please do not underestimate or do not overlook the need to build back the capacity in agricultural research and technology development.

Louise Fresco

Thank you, Shivaji — well spoken. Rajesh, any comments you have to offer to the audience questions?

Rajesh Kumar

Yeah. On the question on the supermarket – again, in India, where I come from, up until the last five or six years ago, we didn't have a concept of chain stores, or supermarket stores in India. For the past five to six years, once the supermarkets have started coming, we see a lot of difference for small farmers, smallholders, in producing their crops. That's in two ways. The supermarket helped them with knowledge about what to produce, how to produce, and they buy it back from them.

And the farmers are very much ready to get associated with the supermarkets and produce for them. In that way it has started, in a small way in India, of supermarket chains' purchasing from the farmer. But still India doesn't allow foreign direct investment in supermarket chains, [and] we feel like, if it's allowed, much more improvements [and] developments will take place amongst smallholders in supplying to supermarkets.

Louise Fresco

Thank you very much. That's most useful. Eleni — risk, volatility.

Eleni Gabre-Madhin

Yes, risk, risk. Well, you know, when we talk about financing — since we're also talking about that at the same time — I'd like to say that the largest creditor in Africa is not Standard Bank or Barclays or Equity Bank or anybody else. It's actually the small farmer. Typically small farmers sell on credit, supply credit; and when they sell, they are exposed not just to payment risk but to price risk, because typically in the one to two to three weeks (I've seen this over and over again in the rural arena), in that interval when prices fall, so does the payment that the farmers are going to get. So farmers are bearing a large brunt of the price volatility.

That said, as we respond to the question that was asked about financing, warehouse-receipt financing and forward contracting, we are moving very systematically, but also very cautiously, from what we currently have, which is a spot market, where we are basically trying to get a reliable, orderly market system set up, to the next step, which is forward contracting, and then from there to futures.

The spot market in itself reduces significant amount of risk because of what I was just saying. And if I could quickly tell you a story: Some farmers up in the north of the country, selling sesame, were very, very nervous about this idea that they could deposit commodity in our warehouse, their sesame, and then have it sold on the trading floor in Addis Ababa, and as we told them, a guaranteed payment the next day. So we trade on a

T+1 basis, meaning if you trade up to 5:00 pm, by 11:00 am the next morning your account is credited. So we kept telling them this would really happen, and they said, "This is impossible — it takes us months. There is one guy in our co-op whose job it is to go around and try to get payment from all the people that bought from us." And we said, "Well, you know, try it." So they brought the sesame, and they sold it, they saw the price that they sold it at on the screen, they heard it on the radio. And then the next morning the entire co-op, hundreds of them, went to that one bank branch in this town to see if what we were saying was true.

And so at 11:00 am, sure enough, the manager walked in, and he asked for the balance, and it was there. And that's really – I mean, I wish I could explain or convey to you the emotion. People were crying, cheering, ululating, laughing, the works. And I think that was the signal that they really can do business because they will get paid, and that means that they can actually plan to do other things with the capital that they're going to get, that they can rely on when they're going to the market. They don't have to hold off buying better tools or better seeds or whatever.

That said, now the next step for us is to go into warehouse-receipt financing. So the banks are coming on board. What happens is, once that commodity is in our warehouse, we've now set up an IT interface with our banks, that are partners in our system, to be able to basically collateralize that asset. Louise's example of the women who go and put in money and then are able to take it out in the ATM – essentially, a warehouse becomes a bank branch. If you put commodity in a warehouse, it is as good as putting money in the bank. You can turn around and pledge it and get money the next morning.

So as we move into that, then alongside that we are now building a three-month forward contract. I was in Chicago yesterday talking to people at CME about the progression in the U.S. market, of the 20 years or so it took to get this forward and futures market right, because I think our government is very concerned that this quickly leads to excessive speculation and in itself leads to a different type of risk, where people are taking positions and doing cash settlements. So we're moving very slowly, but I think to answer your question, we see the two things going hand in hand — the financing of the commodity in warehouse, warehouse-receipt financing, alongside the forward contracting, which we're about to launch.

On the question on crop insurance, there are some insurance companies that are talking with WFP. There was a pilot that was run about two years ago, but I think really where it's come to now is that there's a huge information intensity to crop insurance, and as a country I think we need to get the fundamentals, the meteorological data, right. And also we've started talking with the insurance companies on how to, instead of doing a straight crop-insurance product, think more of something like an option, which would again be something that, on our market, we could introduce an option contract, based on a trigger from rainfall or other index.

So this is something that obviously increases our sophistication and reach to farmers, and so we're working on that. Thank you.

Louise Fresco

Thank you very much, Eleni. Marco, last, but not least, Syngenta's views.

Marco Ferroni

Well, yeah. I don't know how much time you're going to give me, Louise, because I'd love to address all of the questions, but I think that there is…

Louise Fresco

No, no, no, no.…

Marco Ferroni

Okay. I won't do that, but I will draw my own conclusion in one sentence, and then I'll say something about the risk and crop insurance, in particular index-based, weather-based insurance.

So then my one-sentence conclusion is that the panel seems to be convergent: Farmers will rise to the occasion if given half the chance, and that half the chance has everything to do with all of the settings, the services, the institutions, the incentives and so on, that have been discussed, and rightly so.

Now, risk has been a recurring theme, both on this panel and mentioned by you and mentioned by a number of members of the audience. And I want to say something very brief about an index-based agriculture insurance product that our foundation has been able to develop over the last two years, together with UAP insurance company. I wanted to talk about this last year when I was sitting in one of these chairs and we ran out of time, and I understand that we'll running out of time in about two minutes.

But before I get into explaining very briefly what this is about, because it's a unique product, and it's different from the macro-insurance experience with WFP that Kamal and Eleni talked about, which is a different approach; it's very justified and very necessary, very necessary. But, again, I'm looking at the audience, and I'm seeing in a straight line from here Carlos Seré, who is the DG of ILRI, and of course ILRI has been instrumental and innovative in developing a livestock-insurance product that operates with the same insurance company, UAP, that Syngenta Foundation has been able to develop the Kilimo Salama insurance product. "Kilimo Salama" is Swahili for "safe or protected agriculture."

And what does this do? It basically insures farmers for their cash outlays and purchased inputs. Currently, these eligible, insurable purchased inputs are seed, fertilizer, and crop-protection products. The product is weather index-based. There are no farm visits, which is one of the reasons the premium is affordable for smallholder farmers. It is distributed by agrodealers. And the way it works is, it operates on the basis of an advanced, sophisticated, mobile platform that does its share to keep costs to the absolute rock-bottom minimum. Because when you're talking about insurance for smallholder farmers, affordability is the alpha and the omega.

So how does it work as the insurance is being bought at the agrodealer shop? The agrodealer that had to be trained beforehand are given in the context of this project a camera phone and they scan a QR code, basically a barcode, that registers the purchased input that is insurable, together with the insurance that the farmer elects or does not elect to buy. And if they elect to buy insurance, that, taking the picture on the camera phone immediately transmits the data to the server of the insurance company — and I identified it earlier, UAP — and a policy is created. And something like a few seconds later the farmer receives on their cell phone an SMS informing about the policy and the purchase of the insurance and so on. And since we now know their phone number, we can follow up throughout the campaign, the agricultural growing season, with agronomic messages and all sorts of messages and so on. It's supported by a helpline and a whole slew of supporting services and functionalities being made to evolve as we speak. I'm told — I presented this at a micro-insurance summit in London a few days ago — that this is apparently somewhat different from what's on the market now. And we hope very much that we can expand it and really roll it out on a large scale. It has been bought by something like 12,000 farmers in the current cropping season.

Now you're looking at me with a look that I should be finishing. Thank you very much.

Louise Fresco

Thank you, Marco. I think this is a very interesting experience, and it reminds me — I'm so glad you mentioned a mobile phone, and somebody else did that as well. When Norm Borlaug said, *Take it to the farmer,* of course, he thought about the seeds. But what we see today, and very much so in this wonderful session, is that there is a lot more that needs to be taken to the farmer — knowledge, extension, but obviously also modern technology and modern financial products. And it's this combination that actually, once it is in place, makes small farmers so very able to react positively to the market.

So you would think, hearing me now and hearing the panel, that I would end on a very positive note. And, yes, I'm also one of these people who always think the glass is half full rather than half empty. However, Mr. Buffett's wonderful speech did remind me so much that there are still so many people who are hungry, who are even beyond the kinds of minimum that we're now talking about, where there is no mobile phone, there is no banking outlet, there even isn't a market. And really, what we talk about when we talk about small farmers is also this possibility, through them, to reach out to those who are really still the have-nots, the ones that cannot be there to be the persons to whom we can take things. And I'm very sure that I speak in the spirit of Norm Borlaug, that he also wanted especially those very poor, those very disadvantaged, who do not have those possibilities yet, to be reached through the productivity increases of the small farmers.

So I hope you'll join me in giving a good hand of applause to my panel and to yourselves. Thank you very much.