CONVERSATION: SMALLHOLDER SUCCESSES AROUND THE WORLD
October 13, 2010 – 2:00 p.m.

Pedro Sanchez – Director of Tropical Agriculture, Earth Institute at Columbia

I've been told that all of us should talk about smallholder successes around the world, and I asked the organizers whether I could speak to that instead of just moderating, and they said yes. So I will talk for about five minutes and then ask each of the speakers to express their views for another 5-10 minutes or so, and then we will have a discussion.

Ken Quinn mentioned the Hunger Task Force, and I'm so glad to realize that a fourth member of the Hunger Task Force has become a World Food Prize Laureate. David Beckmann had a tremendous role in it. Monty Jones already has received his World Food Prize, so there are four of us there. But the work of the Hunger Task Force started when then-Secretary General Kofi Annan called for a plan to achieve the Millennium Development Goals, and especially on hunger. He made a plea for a uniquely African Green Revolution at a meeting of African heads of states in Addis Ababa on July 5, 2004. And when Kofi — as you will hear him tomorrow — makes a call like that, things happen. And what happened? Many things happened. Among it, the creation of AGRA, the Alliance for a Green Revolution in Africa, the impetus of the CAADP program of NEPAD, the Millennium Villages, and many others.

I would like now to define the African Green Revolution as going from 1 to 3 tons per hectare of basic food grains; that's 16 to 48 bushels per acre. And I am very pleased to tell you that that is happening at scale now. And not only maize — we use maize, corn, because it's a very common denominator — but also we have seen similar increases in the production of camel milk, similar increases tripling in the production of cocoa, and many other commodities.

What happens when you increase from 1 to 3 tons per hectare is that you really adapt to climate change as well. At 1 ton per hectare with the soil very exposed, about two-thirds of the soil moisture, whatever you have there, is lost by evaporation; only one-third goes by transpiration. When you shift to 3 tons and the crop canopy covers the soil, you lose only one-third by evaporation, and then you put two-thirds into transpiration, which is what we need. So we have an immediate adaptation to climate change — certainly not enough. In the Millennium Villages, more than 78 percent of the households have exceeded this 3 tons per hectare, and child stunting has decreased dramatically, because it's not only a matter of how many of productivity but also in how nutrition and other aspects interfere.

Malawi has become, in the last five years, the first African Green Revolution country. In 2005 it was importing or receiving 43% of its food as food aid, and the government of the newly elected President Bingu wa Mutharika, who has spoken here, asked a bunch of us, "What should we do?" and we said, "Why, sir, subsidize mineral fertilizers and hybrid seed." He asked the donors; the donors said, "No way." He went ahead and did it. And for the last five years Malawi's yields of maize have gone from 0.8 tons per hectare in that very bad year, 2005, to 2 tons per hectare. And this is average yields. And the last year, the last harvest in April of 2010, was a drought year, and the yields did decrease to 1.9 tons per hectare. So by covering the soil, you do a lot of stuff.

Malawi's example has really stimulated other countries and donor agencies, and now there are major scale-up projects in Nigeria of vast quantities involving 20 million Nigerians applying some of the Millennium Villages' concepts with Nigerian money. There's a major one, a scale-up in Mali, for the whole Millennium Villages

project, and there are major advances in Tanzania and other countries – all of them who have already surpassed the 10% of their budget into agriculture.

So things are happening and are happening well and are happening solid. Malawi going from an importer to a food exporter is the same as Prabhu described for Vietnam and certainly the same as in the Green Revolution in India. Two things we have to follow up now, very much related to Howard Buffett, is now work seriously on incorporating organic inputs into a fertilizer-based system and the low-hanging fruit: control harvest losses.

With that I will stop and would like to ask Ruth Oniang'o to take the floor. Go my by program? Whatever you say, ma'am. Kenyan women have to be obeyed. So I'm going to ask Dr. Shenggen Fan, who is director general of the International Food Policy Research Institute since the end of last year, and has been, more importantly to me, being a former director general, more importantly being a researcher and leader in the Development and Strategy Division of IFPRI since 1995, concentrated on the effectiveness of poor development policies and boosting production and reducing poverty. So, Shenggen, you're welcome. The floor is yours for a few minutes.

Shenggen Fan – Director-General, International Food Policy Research Institute

Well, thank you, Dr. Sanchez, and thank you, Ruth, for giving me this opportunity to start. First I want to say, actually, I was a smallholder. I grew up in the southeast part of China. I went through Cultural Revolution and the Green Revolution, agricultural reforms. And I was working on a small farm — but don't blame my parents that I was a child in labor; I worked on the farm until I went to the college. And so I experienced the rapid transformation Prabhu just described.

I think the smallholder succeeded in not only in Asia – in China, Vietnam and India – but also we have seen some successes in Africa, in Kenya because of liberalization of the fertilizer and the maize market, but the maize yield has really increased in the '80s and the '90s. So the question is how we can really scale up. I very much agree with the very comprehensive approach Prabhu just mentioned, to help the farmers' access to inputs, technologies, markets, improving rural infrastructure. I think this is all very important. Now the question is, How? Government resources are very limited. As you know, all this involves investment; it involves resources.

So the one thing we could do is try to combine the agricultural investment with social protection. We know that Africa needs agricultural investment. Now African [governments] only invest 4% of their national budget in agriculture, compared to 8-10% in Asia. So we know Africa has to increase its agriculture budget. But in the meantime they're also struggling with feeding the people in short run – through food aid, social protection to protect the poor. So how can we combine these two together so, on the one hand, we can really increase farmers' productivity by investing in agriculture and, on the other hand, make sure the social protection can help farmers to build their assets so they can improve their productivity – and then they can graduate from social protection or from food aid. Some of our studies, studies by International Food Policy Research Institute in Ethiopia, clearly shows that if these two types of investment are combined, the returns are very high. We know investment has an opportunity cost.

But second, I wanted to emphasize what Prabhu didn't mention, is about the policy — the importance of policy. Vietnam, China succeeded, India succeeded in transforming smallholders, but policy played a very critical role there. For example, policy analysis show different alternative returns from different type of investment or different types of policy instruments. In India, the investment in irrigation, in agricultural research, even initial subsidies, and more importantly investment in rural roads; and similarly in China, liberalization of trade, liberalization of market, decentralization of the production to small households. All these policies. In Vietnam, the same thing. In Vietnam they followed approach by decentralizing the collectives to smallholders. So all these policies have contributed to the great success, in addition to technology inputs.

So therefore, Africa — I think we really need to change the situation that most of the policies in Africa are prescribed by researchers from rich countries, sitting in Washington, Paris, or Rome. So I really hope in the future the policies in Africa are proposed by African researchers in maybe Addis[Ababa], in Abuja, in other African capitals. So I wanted to emphasize the capacity building, to build the policy-research capacity in Africa, so we can change the situation where the policy prescription is from this part of the world.

Pedro Sanchez

Thank you, Shenggen. Certainly that is the case in Malawi, where the policy decision was made the president himself and followed up for five years. Then we go to Professor Ruth Oniang'o, who has a diverse background, including service in Kenya's Parliament, from a neighboring district from where I work in Kenya, and being one of the leading nutritionists in Africa. And she is the founder and leader of the Rural Outreach Program, an NGO that supports smallholder farmer groups in Kenya at the community level. So she's going to talk to us now from the only woman we have in the panel, that might bring a somewhat different dimension.

Ruth Oniang'o – Editor, *African Journal of Food, Agriculture, Nutrition, and Development*

Thank you, Pedro. You know you are a Kenyan also. I want to say, Jambo, everyone. I'm from Kenya, and I'm really happy — most of the people I've met here have actually been to Kenya, and I hear so much being quoted about Kenya. And so I'm just happy to be back here and to thank Ambassador Quinn for inviting me and having me share with you in a very few minutes what I think is an issue that faces us.

Clearly, for me, the only success I see is the renewed attention to African agriculture. There is a lot of attention right now, and that is a good thing. I work in Kenya. I've stayed there ever since I went back from Washington State University 30 years ago, and I've stayed on that continent. But I travel, and I come to Iowa, and for the first time I learned why Iowa is so special: that their own son, a former president of this country, Herbert Hoover, in his 70s he was sent out to stop the rest of the world from starving. Forty years later Norman Borlaug was born in Iowa; in his 70s he was on the African continent. Before he died, I got his letter inviting me to be on the board of the Sasakawa Africa Association to continue with the journey. So I feel extremely privileged to be here.

As an African woman, I can tell you when I went back home, started to do my PhD back in Kenya, going to the rural community, I was shocked – shocked – by what I saw. Malnourished children, emaciated — in my own country, which was boasting of being food self-sufficient. It shocked me. That's how I started the NGO. So I continued with my academic work to rise to the rank of full professor, to show that a woman could do it, even in Africa. But at the same time I continued to be haunted by what I saw as a violation of decent living. Poverty, hunger is so undignifying. It is scandalous — I can't even show you the pictures, at least how I could show you those pictures.

It's not been a shortage of money — that's not the issue. If you begin to put together the amount of resources Africa has received over the years for as long as I have been professionally alive, you would not understand why we continue to have hunger, malnutrition, and that Kenya, that has so many projects, which everyone has been to, has child malnutrition going up, maternal mortality increasing, lifespan moving from 56, when we got independence in 1963, to now 49. Something is wrong.

That's the message I bring you here. I work with the women farmers. Women. And all these resources you see, until they reach a woman in my village, I can't say there's any money going towards food and nutrition security — because it doesn't. It stopped somewhere in Nairobi, in big cars, and we have all these figures that we are making inputs into improving African lives. If we are, why is the situation getting worse? Why is HIV/AIDS killing our people? All this technology?

Personally, I believe it is because we have forgotten — especially where I come from; I know Africa is diverse and there are areas where women don't even go to the farm, there are areas where men go the farm, and the youth; where I come from, in western Kenya, it is the women who toil there day and night on the farm. Technology does not reach them, credit does not reach them, information does not reach them — because extension died. I can't tell you how to farm. I can't. It's hard work. Farming is hard work. Farming in Africa is hard work. My mother was a farmer, as my father worked as a policeman. But I used to see every week an extension worker come, in uniform, to teach her how to farm. We don't see that anymore.

Let me wind up and say this. What I see is a partnership, a partnership. And I want to appeal to those of you who have been to Africa, have fallen in love with Africa. Continue to come to Africa — please help us to change the situation. Once you reach an African village, you know how welcome you are. And we welcome you. Those women who have nothing — they don't have enough food to give you — but they look, they'll be happy until you ask them for maybe a coin. They don't even have it. Those are the women I work with. Those are the women we are relying on to feed the continent. So I'd like to see the partnerships of the NGO growing. It was destroyed during the post-election violence. But I also create an environment where students, young people from the USA, from other places, can come and serve as interns. When they want to stay in Nairobi, I tell them, "No. Let's go to the village. It will change you completely. It'll add to the value of your life, and it'll prepare a future profession for you."

So that's what I do. I have the American experience, I have the African experience, and the idea is — we have to stay there to make it possible for those of you who have the desire to come and help us, to work with us. Thank you. That's what I bring here.

Pedro Sanchez

Thank you, Ruth. Thank you very much. We next go to Ajay Vashee, who is a Zambian dairy and crop farmer with two decades of experience in agricultural organization in his native Zambia and the Southern African region and also globally through the International Federations of Agricultural Producers, an association of national farmers' organizations. I haven't had the pleasure of meeting you, but I was in Zambia in February, and I was just astounded at some of the work that is going on there and the progress that your country has made. Go ahead.

Ajay Vashee – President, International Federation of Agricultural Producers

Thank you. I think most importantly what we need to differentiate before we discuss food security and smallholder development is what we call progress and what one would call success. For many, progress for a smallholder, for development and food security, is their ability maybe to eat bread, which they were not eating, or more nutritional food. I think what is important for me, for success, is the ability to have the income and the ability beyond feeding your family to have the choice to decide what food you want to buy or produce for your family.

And I find that this can only change if the level of ambition in smallholder farmers is changed, because they have resigned themselves to accept the cycle of poverty and dependency, and they accept the lowest levels of income generation. So what we need to do is to provide the confidence to smallholder farmers, to force a mind change for them, to look beyond just subsistence in farming.

There have been many innovations where the private sector has come in with contract farming, which is their way of facilitating growth and development in smallholder farmers by providing credit inputs, extension, and link it with a market. You've heard about governments coming in with fertilizer subsidies, and the idea is to increase productivity, but sometimes many of these are not linked with storage of the harvest, are not linked with market linkages. And as a consequence, instead of building the equity of the smallholder farmers, some of these interventions actually leave them where they are, because the productivity has increased, but they

can't store this food; they don't have the market, functioning markets that enable them to transfer the incomes.

And we also have another unique one, which has just come about with the World Food Program, which I thought was worthy of mention, where they're now working in 23 countries and buying from smallholder farmers for food aid and thereby using that as a means of developing markets in many of these countries for smallholder farmers. So there is no quick fix. We have different levels of intervention.

But what is important to recognize when we talk about smallholder farmers is the dynamics and the market dynamics of agriculture today — and it's constantly changing. Smallholder farmers, whether they like it or not, have to work with standards, have to work with food safety, export markets, environmental issues, customer preference. They are not delinked from this. A lot of people, when they come in, they think the idea is to increase the productivity and we've sorted out food security.

The way agriculture is now functioning has changed completely, especially for the smallholder farmers. They need to look beyond the farm gate and look at the external influences that are impacting on them. They need to look beyond their district, beyond the farm gate, beyond national markets, beyond national boundaries. And they have to understand what are the external influences that are impacting on them.

We find – I go to a lot of conferences, where we talk about climate change, environment. A lot of small farmers think that there is no rain because maybe the gods are angry at them. They don't realize there is a phenomena going on. I know there's a big debate; I don't want to get into that. But the key, for me, is information, real-time information for our smallholder farmers. How can we make them understand the market dynamics, the market information, climate change, technical innovations, adoptive technologies that are taking place – how do we make them aware of the opportunities that are there, just outside the farm gate? And how do we give them the confidence to manage those risks and harness those opportunities?

Those are the challenges. I'm not running away from the basic requirements of secure land tenure, water rights, predictable and consistent policies, credit, trade-related infrastructure. But we need to change the mindset of smallholder farmers that farming is not a way of life but an opportunity to grow and prosper. And any intervention we do — whether we do it at a global level, we do it at a regional or subregional, through compacts, through national policy — has to have that design in mind. And only if we ourselves ensure that our interventions are targeted to do that are we going to have real progress.

The other important issue is, how are we going to ensure that the smallholder farmer participates in the governance of agriculture? How are they going to be allowed to be part of the conception, the design, and development of policies? How are we going to ensure that smallholder farmers are part of the governance of the value chain? Always you will find — and this is, I think, universal, not small farmers, even big, commercial farmers — they're always at the bottom of the chain. Yet, 80 percent of the risk is carried by the farmers, and they only get 20 percent of their reward. If there's a change in the prices, you find the transfer of income goes to the other people in the chain. The farmers' farm-gate price never changes, regardless of his scale of operation. And this is what needs to change.

And I think principally what we need to do is invest a little bit more on strong, vibrant farmers' organizations that can influence things and work with the value chain and work with the policy environment. And I have found the synergy — you talked about my country — but when the food-price spike happened in 2008, many of those countries which had vibrant civil society, which had strong farmer organizations, were able to cushion the effect of this, because their productivity, their supply, was much, much more different from those of the others. And when you have strong organizations for farmers, they will ensure that there is a better prioritization of resource allocations.

I hate to think, when I come to many meetings globally, these big commitments of money, so many billions — and nobody, nobody sits down to think about the administration of these funds. Where will the smallholder farmer be? The biggest beneficiary, the end user of these funds — where will he be in the

administration of these funds? It's heavily loaded with researchers and bureaucrats. And this is not to say I don't like you or I don't love you; you're great people. But the principal stakeholder isn't part of the ingredients. "We will throw on a couple of hundred-thousand smallholder farmers. We're putting a fund, we'll load it with researchers and bureaucrats, and it's working" — it won't work.

Ladies and gentleman, we need to think differently. Not every farmer wants to be part of an unrewarding system of toiling the land and at the end of the day they don't get any money. There are no other opportunities. We have to make those opportunities for them. So the solutions we're looking at, in conclusion, cannot solely be based on production-led solutions, but we must look at market-led agriculture for smallholder farmers, which will allow a sustainable transfer of incomes. Because if we all agree hunger is a poverty issue, not a supply issue, then perhaps this is the way we should be looking. Thank you.

Pedro Sanchez

Thank you very much, Ajay. Now I turn to a dear, longtime friend, Vo-Tong Xuan. Xuan and I have been friends, I calculated, for about 45 years, since both of us were graduate students at the University of the Philippines at Los Baños. My eldest daughter and your eldest son grew together, and we have been able to keep that friendship throughout this time. He is without a doubt the father of the Green Revolution in Vietnam, the person individually responsible to lead what changed from a beggar country into the largest rice-exporting country in the world. Xuan.

Vo-Tong Xuan – Rector Emeritus, An Giang University

Thank you, Pedro. I think you know very well that Vietnam today, this year, we export 7 million tons of rice, second to Thailand. And all this rice is made by the smallholder farmer in the southern part of Vietnam in the Mekong Delta. But these farmers could not grow that much rice without technology. And the first technology we got from the International Rice Research Institute, with the seed, but other efforts in making this rice work on our land were totally the contribution of farmers and local government, not much from the international donors.

This technology would not [have worked] if we did not have the right policies; I agree very much with what, so far, was said. But we did so much to make the rice accepted by the farmers, that is, very short duration, 90 to 100 days. That's different from IRRI, that IRRI [rice] would go more than 110-120 days. And it must be high yielding, more than 5 tons, and with the appropriate package of practices. But these practices were not practiced by the farmer because the Communist regime had coerced our farmers into cooperative and production groups. So we have to, as Pedro said, that I was one of the few who dared to reverse this situation, in [encouraging] the farmers to like the technology.

But in order for the farmers to use this technology, besides politics, we must hand over, transfer, this technology into the farmer's hand. We just cannot take, just talk to them, but we have to do hand in hand with them. That is the advantage of the university. By that time, after the end of the war in 1975, we had the brown planthoppers infestation and virtually about two-thirds of the Mekong Delta rice was burdened by the brown planthoppers. But with the university students, 2000 students, we closed the university for two months, all students were trained in three operations. One was, how to make a good seedling; second, how to prepare a good field for transplanting; and third, how to transplant one seedling per yield. And afterward each student would go out with the IR36, with one kilogram, to teach the farmer directly to grow one-tenth of a hectare, and that only two crops per season, we were able to stop the damage of the brown planthoppers. I think this is the only country in the world that can do that, with all the students.

And we see that the extension people are not there, because after the war most of the technical people evacuated, went abroad, didn't stay at home. So the work of the university, of the students' transferring

technology directly to the farmers, really worked. And that made it overnight, after 1989, when we had the new policy, [that] technology could work.

And therefore, with that experience, today I think we can also help African farmers. Being on the team of several CGIAR groups to work in Africa, I also found that they have very similar, very similar situation. So what I did was [ask], "Why not try the Vietnamese technology to help to see whether it [can be] applicable to Africa?"

And now I would like to show you some of my slides, so the second part of this. I must say that my first contact to go to work in Africa, [as a] volunteer, was my meeting with the Sierra Leone ambassador in a small coffee shop, unofficially, in Hanoi, where he said, "Professor, we know that you are the one who made the changes in rice production in Vietnam. Why don't you come to Sierra Leone to help us?" I said, "Well, I can do that, but how can I get some money to go there?" But finally I used my own money. When I went there, I wanted to find out the situation, and after that I defined that there were five steps [that Africa needed to go through]. So with the government, with the government's own money and with our own technology – the second picture here shows you that we got to Sudan, the minister of Sudan invited us to go there, too.

So five steps. The first step, the first place is the fact-finding situation. After that we tried to make a proposal to the government or to the private sector. In this case, I am working with several private companies in Mozambique, Liberia and in Nigeria; for Sudan, we are working with ministry.

Secondly, to verify the technology from Vietnam, Mekong Delta, to see whether it can be applied there. And after that we choose, we select the variety that is most suitable to those conditions.

The third phase is to design the water management system, because in our rice we cannot get 5 tons or 6 tons or 7 tons without irrigation. That's part of the design, irrigation.

And [then] is the investment, the fourth phase. It was the suggestion from the minister of Sudan that when, we verified our technology, if it works, then the government will help us to integrate some of the private sector from Vietnam to collaborate with the private sector in Sudan to organize [the] program to help the farmers in Sudan to grow rice the way like we have demonstrated.

And, therefore, the fifth phase will be the full production.

So what we have done, you see, to these, like in Sudan we have to survey, in Sierra Leone and other places. And then second phase is to test our rice coming from the Mekong Delta. Like this one here is in Nigeria, and this one is in Mozambique, and in Mozambique we're working with one company, private company, Ubuntu, and they got the 5,000-hectare land concession from the government, land that was abandoned by these farmers here. And these farmers were hired by us. And we taught, our agronomist taught, them how to grow our rice to work on the experiment.

And when our rice was about to head, these farmers came and said, "Look, before we didn't know that this land can grow rice. But now we can grow rice because you have taught us, and the rice is very good, so we would like to get back to this land. You go away." So now we had to move to another place, and these people, now they are going to take over this land, and they will produce like the way we have taught them.

I think this, on one side, is too bad for us, because we had been asked to accommodate, to find another place, but another way we see that this is good. I think this is a small success. This is a small success for the small farmer, the smallholder. Now they know that, before, they didn't know how to grow like this, but now in their own hand and they work together with it, they know that that land can turn into the land to give them 5 tons, 6 tons of rice per hectare for a crop. And I think this one is now a very good thing.

And my approach so far, very much in formation with the World Economic Forum that came in Africa in last May, when it called for work with the private sector instead of just the public. And therefore my observation is that the old belief, that African farmers are not laborers, do not like to grow rice, is not correct.

They were so, because so far they did not own the technology that helped them grow good crop. Those we work with are laborers who carry out the technical work as guided, and they can grow good rice only if they are guided directly by experienced extension agents. Therefore, we should eliminate the agents who are only good at talking but not able to grow crops.

And, secondly, the international institution can help our collaborative project with some finance for irrigation-system construction. I said this because now we are only up to phase 3. We already designed the irrigation system, but no one invests in that. And the collaborating companies, also they cannot get money so far from the government.

And even the government, especially in Nigeria, they're not borrowing money from the World Bank or from the ADB — like in Vietnam we borrowed money from ADB and we [built] the irrigation system. But in Africa, nothing. And I remember Dr. Borlaug said that the main difference between Asia and Africa is the irrigation, and I think that he's very, very correct.

And the third, finally, we can help our African farmers very cost-effectively by this South-South collaboration: [for] low compensation, a good, real rice expert [can] work directly, side-by-side, with African farmer.

So I think that I'm sorry I took very long.

Pedro Sanchez

Thank you, thank you, Xuan, very much. Believe it or not, we have time for questions and comments, so until 3:00, 3:15, which is about 11 minutes, I would like to ask the audience, whoever wants, who has a question, to go to the microphone — I don't know if there are one or two there — to please introduce yourself, tell us who you are, and who the question is directed to, please.

Question

Thank you. The microphones scare me, I don't really hear well. I'm a Keo Keang, from Heifer International Cambodia. It is my pleasure to learn from all the speakers today. I have questions that I think everyone have already agreed and believe that there are many role of heroes that people can play together. First we heard about the policy — it's mainly about the government commitment, of political will; second we heard about private-sector involvement, and also I have heard about the role of the international organizations, civil society, and especially the smallholder farmers. That all had to go along together in achieving or solving problems.

So my question, in regard to all your experience, especially your success experience — what I want to hear from you, that all those roles, the key roles, that's very important, but how? It's a question about how, or what is the strategy that we can bring all the four key players to come together and work together? Not just only government, not just only international organizations or civil society, not just only the farmer, and not just only the private sector. That is the first question.

The second question — the other part of that. We all recognize that the role of the government and political leaders is very important, and Cambodia is a country that is a small country. Nearby is the border with Vietnam. And the political will is not there, it's a low commitment, so what can we do to solve the problem? Thank you.

Pedro Sanchez

Thank you. I'm going to ask the future questioners to just pose with the question with a question mark and limit it to one. So I'll take the liberty of answering the second question and ask my colleagues to answer the first one. If there is no political will, forget it. It's just that simple. And in Africa, the countries that are making

some real progress are the ones that are serious, and they're putting their money where their mouths are, by putting at least 10% of their budget into agriculture. There is no point in working with governments that are not serious.

Now I leave it to any of you to answer the first question.

Vo-Tong Xuan

I'll answer the first question, and maybe Ruth can continue. This morning WEF had a symposium about their New Vision for Agriculture strategy. And I think this is a very good time we talk about that and try to do something about it and to realize it. Because like the success in Vietnam, I must say that we are successful only one-half – the other half is that [the person] who grows the rice for export is one of the poorest guys in the country. And I think this is true also in China, because Jikun Huang one time told me. And if you read the newspaper from Thailand, the rice farmer there is also the poorest one.

The income of the farmers is very difficult to increase. It's always easy to increase production, in our case, but very difficult to increase the income of the rice farmer. And it's during the feudal time, it was the landlord who exploited that. And during the war time, in Vietnam, it was the rice cartels, and during this time, Chinese rice cartel was changed into the state-owned rice, the food companies. And then they ripped off the profit of the farmer. And like you said, they were the ones who avoid all the risks and put all the risks on the farmer.

So the conference this morning, the symposium this morning, trying to get the business people and the private sector to link in alliance with the farmer, farming sector, with the help of the scientific sector, and then we have the public, the government, the state, who have the rice policy, dueling the three. And I think this is just wrong.

We have to see to it that business would be the center of this kind of linking. They're the ones who have the market, and they know what raw material they want to have. And they can go back and reorganize the farmers – they're no longer small farmers anymore, but these hundreds of smallholders become a big, big farmer who grows the same raw material, and then supply to the business and the business could process, could brand it, and also distribute. Then the profit will go back to the farmers. And I think with this way we can see that the income of the farmer will grow every year.

Ruth Oniang'o

I just want to say that we take democracy for granted. You know, because of bad governance on the African continent, most activities are run on a project-by-project basis. But in order to ensure good productivity and long-term development, we need to be there for a long haul. But nobody's willing to invest in that. Not even foreigners are willing to invest in that, because they are never sure what is going to be there tomorrow. So we really have to put pressure on our governments to make sure that they have commitment but at the same time that they join the greater bulk of the world in democratizing their governance.

Pedro Sanchez

Thank you, Ruth. Next question, please? And please make it a question. Oh, Shenggen, yeah, sure.

Shenggen Fan

Well, I think, indeed, the government is very important. But a good question is – what government should *not* do is also a good question. As I remember, in Vietnam, when the rice technology was introduced to the country, yield increased, but in the meantime Vietnam had a rice export quota. So that price was artificially low; that really depressed farmers' income. But through some analysis, including my institute's analysis, to

show the Vietnamese government — okay, if the Vietnamese government can really increase the rice export quota from 4 million tons right now to 7 or 8 million tons, then the farmers can really enjoy their income. So they transferred the welfare from consumers. Avoid transferring welfare from producers to consumers. So that's very important.

I think with regard to the question of low income for rice producers, I think in the future this rice producer probably will diversify their production, not only rice, and even [have] on-farm employment, on-farm jobs. But I think in the future, in the future – maybe, I don't know, in 30 years, 40 years – we do want to see these smallholders graduate from smallholders. They move to cities, they enjoy a higher living standard, and the farm size can really become bigger. This is already happening in China and some other transition economies.

Pedro Sanchez

Thank you, thank you, Shenggen. Next question, please?

Question

This is Patrick Binns from Westbrook Associates in Seattle, Washington. My question is specifically directed to Professor Oniang'o and also Mr. Vashee. Knowledge intensity is a critical component of sustainable agricultural practices, and yet we've heard that there's nearly a nonexistent or a nonfunctional agricultural-extension services in many countries, particularly in Africa and elsewhere. And we've also seen that the history of farmer-field schools has been very spotty with some successes, but a lot of failures. I'd be interested in your thoughts on what are the most important elements of a cost-effective, knowledge-sharing and transfer program that would reach smallholder farmers.

Pedro Sanchez

Very good question.

Ajay Vashee

I didn't have even time to think about the answers. I've seen – we have a situation, and I'm speaking more in southeastern Africa, southern and eastern Africa, where you find that the farmers themselves have started agriculture research and extension by pooling together funds from the produce they market. And they are basically trying to fill a void, as you rightly pointed, which the public sector or governments are not doing. And these are some of the prescriptions which our multilateral organizations, if you like, have been prescribing over a number of years: that government must disinvest in agriculture, must move away from extension, must move away from research. And we are finding that maybe we went too much to the other side. There should have been a happy medium where there has to be some limited intervention by government.

So, for us, what we are seeing is a lot of the extension which is now taking place is driven by farmers themselves. There's a lot of farmer-to-farmer extension. And I told you about private sector — they can do a lot of extension cost-effectively themselves. But we need to up-scale; that way, it becomes cost effective for everybody. And that is the challenge that we are facing. So for us it's a lot of farmers' organizations and commodity organizations that are doing their own extension. There are a lot of farmer-to-farmer extension going on in the farm blocks themselves. And we're also finding private companies are coming in and doing it. But I think we need to move to an in-between.

People talk about – just to digress a bit – about how African agriculture must move away from rain-fed agriculture to irrigation. But nobody is going to invest in those dams and weirs and catchment areas; that has

to be public sector—led investment. And I think, so we need to have a little bit of both if we want to move forward.

Ruth Oniang'o

I don't see extension the way it used to be coming back, and yet knowledge is required. So what we see happening now is like a project, like the Millennium Villages, where there — someone is there and they make sure that farmers are actually organized so that information can be relayed to them. You have IFDC in Rwanda doing the same thing. Or you may have cotton in Burkina Faso, and so on, Heifer International. Oh, I wanted to show this — a smiling woman. You know, this is what I always strive for, to see a mother who is coming from the dumps, actually smiling. This is Heifer International in Kenya.

But on their own, farmers on their own, it's difficult. It's difficult on their own. So I think working together we can begin to see how we connect with the government, the government facilitating those who want to work and organize farmers. But in terms of one project, to get information to the farmers is not easy. We're also trying the mobile technology, getting information to the farmers through the mobile technology, and that in some areas is actually working. Thank you.

Pedro Sanchez

Thank you. Let's go to another question. Another question, please? Can you identify yourself?

Question

Njack Kane from Novel Commodities. I would like to say that we are traders moving substantial quantities of commodities, and we've engaged ourselves in production in Africa. [I would like to] take the opportunity to thank Dr. Vo-Tong Xuan, and I must say that the action in Vietnam in Liberia where we have tested the model that you're mentioning, with agronomists in Vietnam, is quite successful.

My question is the following: Shouldn't the model of combining large scales — and I have heard some critics earlier — shouldn't it be a combination of large-scale and small farmers? And I believe that they can cooperate together. So this is a big – this is my question, the combination of large-scale and small farmers that can work together?

Pedro Sanchez

So what you're asking is, what you're asking is — Can you convert some of the small farmers (we're in a world of small farmers) into larger farmers. Anyway, I think everybody wants to answer that, so you have the microphone.

Vo-Tong Xuan

I think yes. The answer is yes, because what we are now doing in Vietnam now, as part of the objectives to get increased income from the farmers, small farmers, we are trying to link the small farmers together into a production group cooperative — a new type of cooperative, not the one that has been before, before the war.

And these cooperatives will be working for one company. So these companies need a large amount of raw materials, and a pure variety of rice. And at the present time 100 farmers in Vietnam will grow about 20 varieties. That will not give good stuff for marketing. So we have grouped them into big cooperatives, and they just grow one variety. So I look at this like large-scale production – large-scale production by many, many of these smallholders. And this is what I, my vision for Africa also, because when we can get the

irrigation system in place in this farming community, then those farmers who, before the land was theirs, and now the land would have the irrigation system, so and then each plot, about 5-10 hectares, those farmers, they might be 10 or 20 farmers, then we'll put one extension agent, which is another very experienced Vietnamese farmer who goes there for maybe two years to work with them in that block of 10 hectares.

And I think because, based on Mozambique, or in Monrovia, Liberia, just one Vietnamese farmer working with about 30 Liberian farmers – the Vietnamese farmer went home, and the Liberian can continue the work. And I think the same thing — when we have an irrigation system, the farmers, the African farmers there, the smallholders there, now become big scale of 10 hectares and working in one variety of rice, for the companies that are putting the investment for those areas. I think it can be done.

Ajay Vashee

Yeah, I think I agree. There is room where you can have large-scale mechanized and smallholder agriculture, but the caveat we have is that that small-scale agriculture must become commercialized. There must be a commercialization of small-scale agriculture where the productivity goes up, it's market-led, they're producing for a specific purpose, and you have the appropriate ingredients to go with it. And you can actually have better economies of scale if you can bulk up these smallholder farmers into what we call economic or critical mass that you want as a commodity buyer to give you those quantities you want. So there is a happy medium, again, between the two. But there are certain requirements that need to happen before that can be done.

Shenggen Fan

Well, clearly, large-scale and small-scale can live alongside, so the small-scale farmers can benefit from the technology, or the markets that grow, or a scheme. But the one thing we have to be careful of, that's this so-called land-grabbing. Now, the land-grabbing means the emerging economies, the oil-rich countries from the Middle East, emerging economies like China, India, the Middle East, like Saudi Arabia, go to Africa to contract the land to produce grains to ship them back to their own countries.

But I think domestic land-grabbing is even more serious. So, a certain government tries to promote large-scale farming by taking the land away from smallholders. I think if we don't do it carefully, then many smallholders will lose their land. They will become hungry, they will become poor. So that's where we have to be careful.

Pedro Sanchez

Thank you. I'm going to put my two cents on this one. In theory it's great what's happening with the so-called 45-million hectare land-grabbing in Africa. But the governments, African governments, have to benefit from that. So I get worried when I see Chinese truck drivers and Chinese cooks imported from China to feed the Chinese workers there while the local people have no stake in that. I think you said it very well, Shenggen — we have to be very careful on this one, because it can politically backfire. Let me take one more question, and then we'll close.

Question

Thank you very much. My name is Beth Mitcham, and I'm the associate director of the Horticulture Collaborative Research Support Program at the University of California at Davis. I've been very pleased to hear the comments this afternoon from many speakers, speaking to the importance of reducing post-harvest losses and linking production to markets. I think we have focused too little on that aspect and have focused too much on production as an exclusive goal. That said, with smallholder farmers, how do you think we can best protect the potential for income of those smallholder farmers when we link them to markets? How can we assure that the value of the products they're producing will translate back to the grower themselves?

Ajay Vashee

I think I said it in passing when I opened my remarks. It's basically how we ensure that the governance of these value chains is structured. You find it's not only smallholder farmers but many farmers throughout the world [who] don't benefit from many of these value chains because of the concentration of the power of maybe a few buyers or a few processors in the markets. So what has been happening is that the farmers are a victim of the markets themselves where we want better food produced cheaply, and more and more it's meant that the farmers are producing more efficiently and are not getting rewarded for that. So it's a little bit of market dynamics as well.

But what I find is I talked to you a little bit about the World Food Program. In many countries you have what we call strategic food reserves. If we can ensure that many of these strategic food reserves are specifically buying from smallholder farmers in disadvantaged parts of the country, you can actually stimulate the market and ensure that they benefit from it and ensure that the agricultural markets are working for the poor and smaller farmers. But it's a bigger problem than we believe it to be.

Pedro Sanchez

This is the end of the questions. I'm going to ask each one of the panelists to give some concluding thoughts. And I warned Ruth that I was going to do that, so by now she should have hers ready, and then I will ask the three of you to give some concluding thoughts.

Ruth Oniang'o

Thank you, Pedro. I'll see you when you come back to Kenya. I just want to say that the question Beth asked about smallholder farmers – the fear mostly, especially for women, is that when you do that, connect them to markets, clearly other players come in. Whenever there's a market, there's a money issue. Women just lose out and we are back to square one. So that has to be very well managed. And even with the World Food Program's Purchase for Progress, unfortunately these are farmers who are in a food-deficit area. So they sell off all their grain — we have seen this happen — they end up again just being hungry. So it has to be handled very carefully.

But I just want to thank all of you. The time was short. You can always see us again to continue to interact. I've seen a lot of interaction here. I'm very excited about this, and thank you for listening. And if it was boring, too bad – but if you want more explanation, yes, let's connect, please. And I want to say: Welcome to Kenya — we are a new nation now. After our new referendum, we're a reborn country, and we are keen to see that Kenyans take charge of their own governance and that we actually have a much better country than we had before. Thanks so much.

Shenggen Fan

Well, it is clear the smallholders have a very important role to play, not only in terms of food security, poverty reduction, because most of the smallholders are hungry, are poor. But I just wanted to add a more important aspect, that is — smallholders actually contribute to overall economy, contribute to overall food security. Not just in the rural areas, [but] the urban areas. If you look at the China, India, Vietnam experience, agriculture really paved a base for the overall economic transformation to lower food prices, the access to food for urban and urbanized citizens. So this important aspect needs to be remembered. So smallholders are not a problem — they actually contribute to overall society.

And then the second point I wanted to make is, as I said, the smallholder is a phenomenon in the development process. In the future, obviously, we want to see them grow bigger and to move out of the agriculture sector. So I would be very happy to see if 3% of Vietnamese population is engaged in agriculture

or 2% of population engaged in agriculture in China. The majority of the people moved to the city, become urbanized.

Then my third point is, we really need to empower the farmers. Why are farmers treated badly? It's because they do not have any political power. So I think democracy —sometimes it's easy to say but not easy to do. I think to empower the farmers, women farmers, is very critical, so they can really challenge their government to create government will – Pedro, you mentioned about [how] lack of political will is the major obstacle. How can we create a will? To empower the people, we can help to create the will.

And finally I think my colleague from Vietnam mentioned about the technology-sharing between Vietnam, between Asia, and Africa. I think we could go beyond just technology. Their development experience, their trade, their investment — these are probably even more important. How can we make sure that when the Chinese, when India goes to Africa, when they buy their natural resources, [how can we] make sure the trade will benefit the poor? With trade, make sure agricultural products in Africa can be exported to Asia. I mean, there's a great opportunity. The investment, similarly — how can we make sure the Asian investment is not only just targeted to highways, to the mining areas but also the roads can be linked to small, rural towns that can benefit the rural poor, creating marketing opportunities for them.

Vo-Tong Xuan

For me, I see a very bright future for the smallholder farmers, not only in Asia but especially in Africa, as my experience has shown — with the condition that we have to meet all the conditions that I presented before. And even in Vietnam now, we are trying to link these smallholder farmers and turn them into owners of corporations, companies. Because with the value-chain approach, we can combine all the stakeholders from production to distribution of the finished product into one big, big company where the farmers would be one of the main shareholders. And therefore the profits, as done by the company, will be brought back to the farmers, and that will end their longtime slave role in the world.

Pedro Sanchez

Thank you.

Ajay Vashee

What I can conclude to say is that whatever we do, let's ensure that we have a farmer-centered approach in what we are going to do for the smallholder farmer. I think that is critical. Let's ensure that whatever we do, it's equitable, there's fairness, there's transparency and accountability for the smallholder farmers. And let's ourselves get out of this mindset where we initially target to better the current situation of the smallholder farmers. Let's try and target to get them out of this situation into viable and sustainable producers. That is the target. And maybe we should be thinking on those lines.

Pedro Sanchez

Thank you very much, all of you. You've heard from all parts of the world here, the vigor, the vitality of smallholder farmers. I think the thing is to help them get out of subsistence, or in many African cases, sub-subsistence, and become small-scale entrepreneurs, at least at the beginning, with a bank account and with a business. I am optimistic and echoing the words that Ken Quinn said this morning in one of the breakfasts: "Things are looking up in Africa." You can always look down and something's wrong happening in Africa, but there are so many countries now that are serious about agriculture, that have reasonably good governance, that are really committed. And the leaders of those countries are the ones who drive.

The gulf and the shifts between NGOs and private sector and so on, I think, every one of these groups of people are reaching out to others, are reaching out to the other ones to work together. And there's a lot of good private-public sector partnerships, and we all work together. I see, frankly, a very bright future, and I think you will see, 10 years from now, we'll be saying, "Remember when we were talking about all those horrible issues in Africa? Well, some of them are still there, but it's really improved."

I want to thank the panel for a very enlightening and provocative discussion. So please give them a hand.