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THE CRAWFORD FUND
For a Food Secure World

THE BUSINESS OF FOOD SECURITY:

Profitability, sustainability and risk

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Editor: Janet Lawrence



Q&A: AFTERNOON SESSION

Facilitator: Dr Jim Woodhill, Principal Sector Specialist, Food Security and Rural Development, Agriculture and Food Branch, Department of Foreign Affairs and Trade, including afternoon speakers, structured around direct questions from the floor

Facilitator: We now have three quarters of an hour to ask some more challenging questions about the topic of the business of sustainable food security. Just think quietly to yourself for a moment. We've heard a lot today, please just think quietly for a moment, something that has surprised you about what you've heard today. You've got 30 seconds to do that.

Now let's turn this back-to-front for a moment, just to help us get going with this discussion – which I really want to try and make as good a discussion as I can. Let's just first ask our speakers one question that they would really like to ask. So given that you're up there on the big screen Chris why don't we start with you, what's a question that you would like to ask?

A. Chris Brett (panel): My big question, and I think about this a lot. Olam's very much focused on the coming sustainable development goals launching on January the first 2016. They're obviously all agreed I mean they are quite frankly a huge shopping list of 17 major goals with hundreds of indicators and so on. So my challenge here is: we've got a 15-year period, how can we meaningfully look at goal number two food security and really dwell on that and build from it? But also goal 17 is about collaboration and partnership, how can we really look at effective partnerships to deliver these goals and with a strict focus on SDG2, food security?

Facilitator: So summarising, how do we get really serious about the sustainable development goals? Marco, what's a key question that you have after today?

A. Marco Ferroni (panel): My key question in this respect is addressed to the aid agencies, when and how are the aid agencies getting serious about agriculture in the right way? I can elaborate what I mean but I don't need to, I'm just putting it out into the room. Secondly when are our governments, and we work a lot in sub-Saharan Africa so I'm

referring to that part of the world a little bit, finally getting serious about agriculture? That's the challenge question that I would like to pose.

Facilitator: Thank you. So it's not all about business, how does the public sector also get serious? Matt?

A. Matt Willson (panel): My question would be also about collaboration and we've talked a lot about it over the last 24 hours. What are the priorities, bear in mind we need to scale up collaboration particularly here in Australia, what type of collaborations do we really need to get moving on quickly?

Facilitator: So what are the collaborations we need here in Australia? Alison?

A. Alison Eskesen (panel): I would drill down even a little bit further and say if we really are interested in partnership and collaboration within the private sector, then whose job is that, whose job description includes an indicator where they're accountable for partnership? Clearly in the NGO world and often times in government your job is around collaboration and partnership and so you have dedicated people but on the flipside how do you do that within the private sector?

Facilitator: Great, thank you Alison. Martin?

A. Martin Kropff (panel): Basically many countries are now starting with the philosophy of aid and trade. And many of the donors that I observe look at short-term impact, and short-term impact is important but the issue is basically that it's not 20–30 million people that have to be taken out of hunger, it's a huge issue in the longer term. So I think, how can we get the donors also convinced that we have to invest in the short term? When there is a problem in the country we need to do these types of things, we need such initiatives as well, but how can we get a complete pipeline so that indeed in 20 years from now hunger is out of the world, that also we invest in these longer-term things?

Facilitator: So how do we invest for the longer term?

A. Martin Kropff (panel): It's a little bit like in the Netherlands when for example we have to invest in dykes, if we don't then you know we drown and some people become fish, right? (laughter) But as long as there's 20 years with no flooding then nobody wants to fund it anymore – so you need a flooding situation and a problem to get interest again. In

the same way a lot of people don't take food security problems seriously.

Facilitator: Thank you Martin, that's an important point. We talked earlier on I think about disruptive innovation so I'm going to have a go at being disruptive for three minutes and I'm going to ask you to really be quiet after three minutes. Please talk to your little groups of three, what's a really critical question that you think we still need to be asking at the end of the day? You've got three minutes to discuss that with your neighbours.

(General discussion for several minutes)

Facilitator: Thank you, let's now have some questions! What I'm going to do is ask for set of questions that sort of link together and we'll see if we can have a few clusters of questions. So who would like to begin?

Q. (Melissa Wood): We've got two questions here, they sort of link together. It's been a really great day and we've heard all about the need for sustainable multi-stakeholder partnerships to feed the world profitably and sustainably. Lots of lessons that I think are more than we've ever heard before, lots of examples, golden triangle, and the four pathways to scaling up. So we were wondering have we got enough evidence now, do we know enough to really get serious about this and are we on the right trajectory to scale up, to linking smallholder farmers with business or is there still more to do, is there something still missing? So if we meet in another five years are we still going to be talking at this level?

And a follow-up question: I am really asking who is going to take the leadership on this, who has responsibility?

Facilitator: OK, are we on the trajectory for going to scale and who's taking the leadership on that scale? I'd like a couple more questions on basically the same theme as that. You're going to get your go Dennis.

Q. (from the floor): In our discussion we talked about how looking on a global scale doesn't get down to the point where you can get gains by looking at the big population countries where you can get a substantial gain. But there are so many small countries which are going to have a different set of problems and therefore they're not going to be able to move forward in the short term, and of course that means in the long

term as well. But talking in a global sense doesn't really get down to the problems that some countries are going to suffer for a long time.

Facilitator: OK, so the scale issues of different countries. Sorry, I'll come to this side of the room in a moment.

Q. (from the floor): We were, or I was intrigued initially by Marco's role for the market in terms of scaling up, a great mechanism. But I think one of the things that concerned us was that markets can often have market failures and often the environment is the area where failure occurs.

Now we heard also some wonderful solutions in terms of the certification schemes and the way industry is dealing this, the Unilever code and so on, but the other side of the coin was there are a lot of transaction costs in terms of bringing those to fruition and my colleague on my right pointed out that we haven't got much time because of climate change. So I guess the question is how can we bring private sector, government and smallholders together to sort of solve things which are soluble, but do it quickly and do it well and avoid the mistakes that we've made in the last 100 years of modern agriculture in the developed world.

Facilitator: OK, thank you. So let's take those three... So the question here is around scale, it's around who takes the leadership on scale, are we heading in the right sort of trajectory to do the things we need to do and are we doing that quickly enough? Marco, why don't we give you a go at this, seeing as it was your subject?

A. Marco Ferroni (panel): So are we doing enough and are we doing it quickly enough? Well the answer is no, however we have many initiatives and that is good and bad. I was impressed by what I heard from Chris (Brett) about Olam, there is a large player that can have major pull, by thinking through the elements that one needs to think about and heed in the context of an effort to link farmers to market sustainably, because we have heard the numbers that are involved.

At the same time I'm seeing a lot of projects out there, a lot of 'me too', small scale events, initiatives where people claim that they're reaching so many farmers. I normally doubt what they mean by reach, normally evaluation is in short supply and so on. And I think that there is a need for a more rigorous approach in many instances and also for coordination. We could potentially pool resources to have bigger

impacts of the kind that we have heard in Chris Brett's presentation. So that's one answer to that particular question.

I want to address if I may very briefly the other question that seems to have been directed to me, which is about markets that can have market failure. Well that's a whole discussion market failure, institutional failure. Markets that work don't fail because they work but potentially some of the regulatory environment may not be specified correctly so that you may not have the incentives to deal with all of the sustainably aspects and so on. That's a big problem that needs to be looked at specifically, value-chain by value-chain, geography by geography, farmer group by farmer group. But I want to make one statement with respect to sustainability, the first law of sustainability: is intensification OK, because intensification requires links to markets for reasons I can explain separately.

Facilitator: So Marco, you are also posing the issue if I'm correct that we actually don't know whether we're on track or not, we haven't got enough evidence and data about whether things really are heading in the right direction or not.

A. Marco Ferroni (panel): I think that's correct. There is a lot of things that are happening that are going in the right direction. This conference shows that there is a lot of consciousness on the part of people who are interested in this question, but I don't think that anybody knows whether we are really on track in a global system towards sustainable development in terms of agriculture and rural development and food supply.

Facilitator: So Matt, I mean we've got the whole WWF market transformation issue, and you're right in the middle of this, what are you seeing in terms of changing things at scale?

A. Matt Willson (panel): I think I mean firstly just on the leadership piece I think organisations have competencies and they have strategic interests in particular areas. So I don't think you can be in a situation that all companies are going to be involved in all initiatives, even though they might have some footprint. So examples like McDonald's taking a leadership position in getting global roundtable for sustainable beef set up: it obviously has a strong strategic interest in beef being one of its major products, it's got a good understanding of all the stakeholders in

the beef supply chain, understands a lot of the issues. So for me it's about companies identifying where are their natural niches, where can they actually add the value and where can they actually take a genuine leadership position. And when I say leadership I'm talking not just about seeking out the right product, but actively going out there and developing solutions in collaboration with other stakeholders.

And I suppose an add-on from that point I mean the market transformation and approach that WWF's been using is really about using the major buyers and leveraging the volume of product they purchase. So I think for me there's an opportunity, a scale opportunity to understand the commitments that companies have made around sustainable sourcing. You've seen a couple of examples of companies that have made 20/20 commitments. For me there's an opportunity there to help those companies fulfil those 20/20, 20/25 commitments, there's an opportunity there because the demand is there or at least the market signal is there. So ultimately how can you, how can we utilise those public commitments to deliver social and environmental outcomes at a local level?

Facilitator: So let me go to you up there Chris you've sort of got the poll position, you look very big in this room. I mean, are you getting to the scale, do you see things happening at the scale that is needed and maybe you might like to reflect on this leadership issue within your own company. I mean, how do you get the leadership that's needed to really change things deeply in your own business operations?

A. Chris Brett (panel): I think there are a few points here that people need to dwell on. I think number one it's about scale, you know you have to take a risk. As a business you know we've banned the word pilot, if anyone says the word pilot they get a right ticking off because we believe whether you agree or not, maybe we're being presumptuous, but we believe that we've actually developed quite a lot of models across different countries and we've learned a lot and we're scaling those models up. Because we can't spend a lot of time, a year or two or three years now on small projects or small pilots so we really do focus on scale number one.

I think the other thing is that we are spending a lot of time with national governments. I travel extensively and we spend a lot of time at the

institution, the ministry level and really working you know with the Ministry of Agriculture or the Ministry of Finance, trying to explain the position or the private sector. And we've also managed to promote quite a lot of regional discussion and there are some great practices in some countries and weak practices in others. For example I'm quite happy to say that we have a great relationship with the government of the Republic of Congo, and the government of the Democratic Republic of Congo next door is trying to develop quite a lot of the plantation businesses and they're asking for advice from the Republic of Congo and they're asking advice from the government Gabon and we're working those countries.

So I think you know the government of Australia should be looking more at this institutional development, strengthening national governments. And we talk about the enabling framework for business, its business you know under control, under controls, we can't just be let to run across countries where you can argue there's weak governance. But we want to do the right thing, we want to invest, we want to scale up and we want to bring those farmers' products into national markets and international markets.

I would like to stress that Olam does a lot of national businesses: we do rice farming in Nigeria where that rice product is for Nigeria, so it's a fully integrated market. We need to be very much working with the government on their food security policies but also on what duties they're charging for the import of chemicals, what they are charging for the importation of rice that is competing with our national rice.

Facilitator: That was great, I want to make sure we've got time to cover some key points. I actually think that's a key point you've just raised Chris, in terms of regional collaboration and working in partnership with government. I want to come to Alison in a moment, but before I do that let me come to Martin because you were also talking about the scale of issues around what research has done, I mean the critical role that the CG system can have in helping to partner with business in taking these things to scale. So from a research and a CG system perspective, how do you see the scale question?

A. Martin Kropff (panel): I think that's also why it's important if you have a global system in that sense so CGIAR and then like companies like

Olam that are really working in all these different countries can bring knowledge from one area to the other one and indeed stopping small pilots, and you can make/start initiatives. And what I said in my presentation we need to link golden triangles of the different countries, north, south. I think also in policies and governments we also have these overarching organisations such as FAO.

So I think many of the programs have to work out nationally in the end. National government makes the rules, makes decision in these kind of things. But we need international links so we need the international activities. CGIAR can't do this in isolation, NARS can't do this in isolation, National Agriculture Research Institutes but also individual companies cannot do it in isolation, so organisations must intentionally support local initiatives.

Facilitator: So Alison, let me come to you then also about the linkages between business and government in the context of Grow Asia, but particularly about where does the leadership and trust issue fit into this story of going to scale?

A. Alison Eskesen (panel): That's an incredibly hard question (laughs). I firmly believe, and I think we all firmly believe at Grow Asia, that who bears leadership or who bears responsibility and who should be the leader it should be each and every organisation, that the worst of a partnership is to look and say this is your responsibility and I'm passing it to you. Now that's not truly a partnership. Also government clearly has a role to play, whether it's enabling the framework, whether it's investing in infrastructure. Donors clearly have a role to play but so do companies and it's in the companies' commercial interest in which to engage. We believe that in some cases the answer is 'yes'.

Do we know enough how to take it to scale? If you look at the disparity between developed markets and developing countries in terms of their agricultural productivity you'll see that that information already exists, it's how do you take that information and make certain that it's disseminated and adopted in developing countries. In some cases we don't have the answer yet, but I would think that that's in the minority not the majority. And so if we start with what do we know and how can we replicate that and disseminate that in developing countries that will

go a long way in terms of achieving progress toward food security and then in addition to that thinking about innovation.

And I think about the different businesses that stood up here today to talk about their models and their approach to engaging – whether it was through partnership, whether it was through engagement of smallholder farmers, whether it was through technology transfer. Each has stated that they want to be a leader in this. I think that that's incredibly important as we think about how to achieve that balance between government and private sector and civil society.

Facilitator: Gerda, just a quick question on this topic I think to Chris.

Q. (Gerda Verburg) Good afternoon Chris, this Gerda Verburg speaking, Chair of the Committee on World Food Security, a multi-stakeholder platform. My question to you is I hope you will have a happy and healthy life for a long, long time from here but once you die what kind of legacy would you like to have?

Facilitator: What are they going to put on your tombstone Chris? And hopefully that's a long way away!

A. Chris Brett (panel): Well I hope so too! I've moved into my last decade of working life according to the U.K government, but let's see what happens in reality. I've been on a personal journey, I've worked overseas in a lot of areas for 32 years now. So I started off as a VSO, a good old platform going out as a volunteer to Nigeria on a two-year VSO program and unfortunately I left after 11 years, I forgot the two years was up!

So I've really been working in community. So my legacy would be I want to see sustained change, I want to see smallholders rise up to not just be smallholders I want to see them much more commercialised, much more entrepreneurial. I want to see smallholders grow to be managing farms of say 12 hectares. I know that's a bit of a radical statement but I think 12 hectares would be a viable commercial farming unit for many smallholders. So I think for me my legacy would be to see that sustained change on land productivity, and like Marco said it's all about productivity. You know we've got lots of land being unproductively managed so I want to see that change, that would be my legacy.

Facilitator: Great, thank you Chris. OK, let's go to some more questions. And as you listen to the question, if you've got a question that you think is on a similar topic I'd like to cluster a few topics together.

Q. (from the floor): My name is Dan Etherington and my company Kokonut Pacific was subject of a recent Landline program. We are a social enterprise, we are for profit, we are highly profitable, we focus on the coconut industry and we have our technology in a number of different countries. As a social enterprise our shareholders are not interested in cash return for their investment, rather they are interested in what we are doing. Now I see enormous companies being represented and talked about on scales that are unimaginable to me, what are your investors contributing to this? Are your investors willing that you have a real social impact? Are your investors willing to diminish their cash return for a good story?

Facilitator: OK, a really important question. Have we got any other questions around this investment idea? Here, one of our young scholars, am I correct?

Q. (from the floor): I was thinking about how the palm oil industry is really affecting the orang-utan population in Indonesia, and how organisations such as the World Wildlife Fund are ensuring the sustainability of this species, and also like why are we still using palm oil and how it relates, are investors worried about the animal populations?

Facilitator:

OK, so what's the link there between how we think about different products and what the investors want? We have one more question, right at the very back, pertaining to how we get better risk analysis – which I guess then again links to this whole investment side of things. OK, so maybe where are investors coming from, how are they driving the picture, do we see differences in different companies in terms of who sits behind them in the way they can operate, how long-term can they be thinking about? Who'd like to start off on that one? Let's go to Matt and then we'll come to you Chris.

A. Matt Willson (panel): Perhaps this is beyond investments, and we were actually! WWF strongly believes in the power of the investment community and how that can also be a lead for change. From my

experience across I suppose the range of commodities that WWF works on there's actually quite a strong correlation between productivity gains and efficiencies and sustainable outcomes from an environmental and social perspective.

So taking palm oil as an example: there's been some analysis done by WWF about a year ago looking at how the production of sustainable palm oil can reduce labour costs, because there are reduced impacts on employees from a health and safety perspective from use of pesticides, better relationships with local communities leading to less downtime at the plantation level. Actually having a healthy, well paid workforce can again improve productivity.

So it isn't always a trade-off between sustainability and production of products and profitability of profits. Ultimately I think that there's a great opportunity there and we've seen it with sugar, with palm oil, with beef, around how can that value be better monetised. So this isn't a question of should we do the right thing or should we do the profitable thing.

Facilitator: OK, so just to answer your question directly, so you're saying palm oil's not fundamentally bad?

A. Matt Willson (panel): I can answer by saying palm oil's an interesting one, especially here in Australia, because it always comes up as a question and again that links to productivity again. So I haven't got the figures with me but if you look at the yield of oil per hectare for palm oil its significantly high, you know significantly higher than some other oils (I'd be careful in saying coconut oil).

Facilitator: So let me come back to you Chris and around this investments story but also how do you sort of see that ecosystem of different sorts of companies, small, large, privately owned, on the stock exchange, how does this change the way companies do and what they can do and how they need to work together in terms of – let's even come back to the scale question?

A. Chris Brett (panel): Well firstly I love Dan Etherington's business model, I wish that I was under less pressure in terms of returns because I can assure you that our investors in Olam really are looking for a return. There are a lot of issues that people only invest in companies

which can evidence the way they do business in terms of their policies and how they develop these plantation businesses, how they develop their supply chain business. So there is a tremendous amount of pressure on us to be sustainable, but at the same time investors in a company like Olam, privately listed, do want returns comparable to other industries.

The other side that I would also stress is that there's a lot of new financial processes coming onto the market, for example green bonds where you can start looking at, they are a little bit more adventurous on financing adaptive strategies to evidence sustainability. That's another area that we're looking at as a company where green bonds would finance areas where other banks wouldn't necessarily go number one, but also number two they are starting to look at rates which are very, very slightly lower than the market.

But I would like to stress to you that Olam works with the DFIs, the development financial institutions like IFC, like Probarco, like KFWDG, you know all the European banks. The IFC, gives loans on commercial terms, they're not giving us any softer loans, the only thing that we can get as an advantage from them is that we can get grants to help fund some of the programs that they get involved in financing with us. They will finance things in a longer term than some commercial banks. So that is another area where people think that DFIs give lower or better rates – but they don't. And the other side is that commercial banks have really scaled up their policies on how they work with companies and there's a lot more auditing on companies like Olam.

And just to talk about the points of palm oil from the earlier statement. Palm oil, actually the oil from palm oil basically, one hectare of palm oil is equivalent to about seven hectares of the nearest largest production oil. So palm oil is a contentious subject but unfortunately we have to live with it because it's in many, many of the products that we're used to, and its cost advantage.

Facilitator: Great, thanks Chris. On this question about different sorts of companies and investment let me come to Martin. From your experience with the top sector in the Netherlands, where I know there's an incredible diversity of companies involved in this space from large to

small, what's been your experience of how different sorts of companies engage in this space?

A. Martin Kropff (panel): I think the key here is, and then we go to the partnerships again because of course the big companies especially have shareholders. Basically you know profit is a driving tool and if you have no clue what the trade-offs are with other trades then of course it makes for very difficult decision-making. So I think joint setting an agenda is very important, that's what we did in the top sector approach as well, and then really a joint agenda setting and also jointly looking how you can reach objectives. And sometimes as a government you have to set a standard – this is a limit for us and we don't want to go below that limit.

And then I'm going to the farming systems question as well, we need also good decision making tools from science, from the economies for example at the landscape level. So if we treat it like this and we handle it like this and so much palm oil in this area what does it mean for the other partners in the landscape and the orang-utans for example? And those types of models should not be developed by the scientists only; they have to be used by the stakeholders. Ideally when the stakeholders in such a meeting sit around the table that they see what are the trade-offs in terms of profit of the company. Companies have foundations so they want to do something, but also in terms of the different objectives that you have in a policy. And that's I think a challenge for science that we can ask, that basically the economies also must come up with.

Facilitator: So better decision-making by bringing science into decisions about trade-offs and other discussions.

A. Martin Kropff (panel): Exactly, because a lot of these decisions are now being made on the basis of emotions and people have all kind of numbers so the impact is more predictable if you have solid science. But that's a big effort; by the way you can really see what does it mean if you want to have more people in labour, more labour of people, what does it mean for, or better societal environments for labour so better salaries or what does it mean for the amount of people in all these such type of things.

Facilitator: Which comes back to the point Marco made earlier about just lacking some of the basic data and basic information for good

decision-making. Alison let me come to you because I know you've been involved a lot in a 'previous life' in sort of innovative finance thinking. What are you going to bring to Grow Asia in terms of thinking innovatively about the whole finance story behind this?

A. Alison Eskesen (panel): I think there are two things. To touch on maybe the questions and some of the points that were raised earlier, I completely agree that there is a lack of data and what we really need right now to unlock socially responsible investment, to unlock impact investment is information around what is the relationship between impact, return and risk. So if your risk goes up does that mean your impact goes up and your returns then go down or are they not diametrically opposed. And if you start to have that data what it allows all types of investors to say OK if I'm being demanded by my shareholders to be socially responsible what part of my portfolio might I look at to have investment in this and how do I balance that with other investments.

And so I think that such information is incredibly useful for all types of investors across the spectrum. And that is being said from Grow Asia and what we are thinking about is really a two-prong approach; one is thinking about innovative finance so as Chris mentioned green bonds. There's a variety of defined structures that you can engage using either the CS arm of the business or a foundation or using governments and public money. Blended financing is incredibly interesting in terms of bringing the right type of financing at the right point in the value chain. But then also really I think it's a missed opportunity if we don't think about domestic markets and domestic capital. There's an incredible amount of wealth in developing countries that resides locally; the question is how do you use that financing and engage that financing for the development of their own nations and the smallholder farmers.

Facilitator: Great, thank you. I haven't given you a go this time Marco but I'll come to you on the next round. Somebody here was really trying desperately to catch my eye so we'll go there and then take a couple of other questions.

Q. (from the floor): Lachlan Hunter here from the University of Western Australia. Thanks to the Crawford Fund for the scholarship opportunity and for Erin Pope and Ashley Ridgeway from Curtin University in Perth,

Western Australia. Our questions is quite simple, and you know there was some really great ideas throughout the day, but how do we in agricultural science and in research communicate our main messages to the general public to what we're trying to achieve?

Facilitator: Great question. Any other questions there about how do we communicate all of this?

Q. (from the floor): We're a group of young scholars as well from ANU and Sydney University. The question that we thought hadn't really been answered throughout the afternoon was how private partnerships are contributing to viewing food security in terms of access and utilisation? Because we've heard a lot about production sort of focus but not those aspects of food security which are both very important aspects.

Facilitator: Right, thank you, great question, let's take this one.

Q. (from the floor): Eric Huttner from ACIAR. This is not quite about communication but it's in the same sphere. I think the general public has some development scepticism about older registration schemes and accreditation schemes for sustainable and stewardship and fair trade, all those things, and I wonder where we could get some sort of vetting that those regulations and constraints we place on smallholder producers to match them are actually beneficial for them. I'm sorry to bring in a pretty contentious topic but remember that McDonald's by deciding that they would never use GM potatoes actually are depriving all the potato growers in the world of a potential innovation that could assist them tremendously.

Facilitator: OK, let's take, we've got three sort of areas there, how do we communicate the big issues, what about the access and utilisation, food security is not just about the production side and are we going crazy as consumers with a million different standards that we've no idea what they mean. Marco?

A. Marco Ferroni (panel): On communications I don't think that the record of the scientific community is sufficiently good in terms of communicating to the world some of the basic truths that are going hand-in-hand with food security which is that for example we require about agricultural technologies. I'm pretty optimistic when it comes to the large, big questions that were asked explicitly or implicitly in this

conference with respect to whether mankind is able to feed itself going forward, because there is something called human ingenuity which has saved us many times in the past and so on. But it is also true that particularly in developing countries, I'm also seeing this phenomenon in emerging middle classes in emerging markets and so on, lots of people are getting sceptical in respect to at least certain kinds of technologies that are essential in agriculture going forward.

And of course we must ask seriously the question of how we communicate; I think that there are some issues there. Clearly in that period that I have been working at Syngenta Foundation the whole question about GM, GMO technology has become much more polarised and much more negative in the last number of years than it was maybe in the middle of previous decade and so on. We need to ask the question about that because I would not suggest that we can possibly take biotechnology off of the collection of tools that we have in terms of technologies in agriculture, it's got to stay there. And I think with respect to Eric's point, yes that technophobia can deprive farmers of important markets and therefore sources of real development, sources of more equitable inter-sectoral growth and development and income distribution in the economy as we go forward if you look it over the medium to longer term of 20 to 30 years. Technology is essential and there is a communication aspect.

The other aspect that I find is having some negative consequences or at least is influencing the debate in not necessarily productive ways in addition to the issue of technophobia is what I call peasant romanticism and I referred to it a little bit implicitly in my presentation. It's not helpful if people view small-scale farmers from a perspective of quaintness, anthropological quaintness, as OK because poverty is quaint. Well it is not if you ask them, and we've got to begin to understand that these people are entrepreneurs, small as they may be, they may not be able to take many risks because they're poor and that's why we need to come in with the enablers, some of which I have tried to explain to you. So those are my observations, and there is a communications dimension in all of these.

Facilitator: So with this lack of romanticisation it sounds like your headstone's going to be very close to Chris's.

A. Marco Ferroni (panel): Yes I think so.

Facilitator: Martin, a very good question has been raised, we had a lot of discussion about the production and the tackling food security and perhaps we haven't said enough today about the utilisation and the access. You had a very nice colourful picture at the end of your presentation about how everything comes together, what's your answer to this?

A. Martin Kropff (panel): I think that's key. And it's also why we have to link it up with the markets and that's why we have to have public-private partnerships, because if you just develop technologies its great you can have the scientists and their experiments and the models and things but the key is basically how do we get it to work. And that's also why for example in my institution we also have social scientists who have a very important role because basically the issue of access and utilisation, utilisation of course with a focus on nutrition, that gets a lot of attention these days, and that's good, that's important as well.

But in terms of access there are all these complex processes related to governance; that's also what I just said about those types of modelling because scientists especially the economists and sociologists can come up with models and calculate how things can work; but also in terms of access because you have to be so careful with scaling up. At a given stage my PhD students worked on inter-cropping high value of rice varieties, worked very well. They started scaling up and up to 300,000 farmers in China, wonderful. These farmers became rich. But then suddenly the whole market collapsed because it was too much of that product.

So you really have to think about such products; scientists and sociologists don't have to study only where things are going wrong; I challenge them in marketing to really study also why things are working. And then with the economies when you scale up, what's going to happen then? So a lot of knowledge has to be used in basically guiding these processes and helping governments to sort things out. Because we may have some interesting pilots here but how things work at the country level is very complex. And that needs attention and needs to be valued also by society.

Facilitator: Thanks Martin. We've wound everybody up a lot today, now I can see signals coming from the side that I need to wind things up. I'm sure we could go for another hour or two or three on all of this. So let me try and bring things to a close. Firstly, a quick reaction from both you Chris and from Matt about the standards and the labels and so on, where's that going? I know we could again spend the whole night on this one but a quick response from both of you. And while you're thinking about that then I'm going to ask each of our speakers to give us a sort of 30-second last key message from your perspective, from what you've been hearing this afternoon. First Chris, standards and labels.

A. Chris Brett (Panel): Just a very brief message, obviously as a company we respond to what our customers want, and our customers do vary from whether they're following a route of fair trade, a route from organic, a route from rainforest alliance. But what I've noticed in the market in particular is that we're developing two-tier markets, we're having the developed countries which are looking at certification, but then we've got these huge markets – India, China, Africa, Latin America – where quite frankly there are no certification standards. And we do see for example in cocoa that things scale up to about 20 per cent of a third party certification then they seem to just tail off. That's our experience with the market. So certification as a tool is raising the bar but it's how we bring the mass volume of a product sustainably into the market and that's what we're focusing on in Olam.

Facilitator: Great, thanks Chris! Matt?

A. Matt Willson (panel): With certification schemes: I think we can all agree there are too many labels and probably too many certification schemes. But as Chris says there's a reason for them and that's because companies are demanding them. So ultimately major corporations with brands where there's potential reputational risk issues they are seeking ways of communicating to their customers but also seeking reassurance on the nature of the products and how they've been sourced – and certification schemes provide the solution. However, they only provide a solution in certain circumstances, so I think the interesting question and the one that's not going to be resolved here is in which circumstances are certification schemes relevant, to what proportion of the market are they relevant, accepting the fact that they can exclude and they often do exclude smallholders.

Facilitator: So another area where we need to bring good science about what's actually happening with this stuff into the dialogue with a whole bunch of different players?

A. Matt Willson (panel): Absolutely!

Facilitator: Now let us wind off with a very quick message from each of you to wind up this session. Alison?

A. Alison Eskesen (panel): What I've heard and what I think all of us here have talked about, and I hope there's a fair amount of agreement, is that scale is essential. If we really want to address food security we have to be thinking about scale. We need to be thinking about how to work collaboratively, how to have ownership of different activities and how to step up and have that leadership. And that this is really an innovative alternative way to achieve systematic change in which each of us has our own role to play.

Facilitator: Thank you. Martin?

A. Martin Kropff (panel): The public-private partnerships, I think we have seen now today they are really essential. We have to use basically the policy makers for the right directions, the industry to make it happen at scale, and the science for better decision-making by developing the technology for innovation to make it possible.

Facilitator: Thank you. Let's go to you Chris.

A. Chris Brett (panel): Obviously some great comments there. I'm very, very pro-partnership. I know that Olam has a great opportunity to really influence long-term development and sustained development, but it has to be through partnerships. And I look forward to working increasingly with more partners as we go forward as a business. I also urge people in the audience to have confidence in the private sector, seeing them develop this role with governments and other partners, particularly NGOs. But I do stress it is a lot about national government development as well, they've got to be a clear partner in a lot of this work.

Facilitator: Matt?

A. Matt Willson (panel): I'll go with the collaboration piece again, I suppose my message is start thinking about who you could potentially collaborate with; all collaboration really is about identifying

competencies that you don't have within another organisation, to deliver greater value. So for me there's a collaboration opportunity across all organisations, it's just trying to identify who.

Facilitator: Thank you. And the last word Marco?

A. Marco Ferroni (panel): I want to leave the audience with the following two takeaway messages which I really have already had the opportunity to point out in my presentation. The first is the unprecedented demand growth for food that we are facing in the rest of this century, that is the wave of opportunity on the back of which we should be able to create rural development, linking farmers to markets and creating conditions on the agricultural side of things for a world in which there are ultimately fewer farmers.

There's two things that are required for that process to happen which is an epic historical process that unfolds over 100 or 200 years as it has in many of the OECD countries, which is a pull and push sort of combination. The pull combination is employment generation of good jobs; we can define what we mean by that in the farm sector. The push has to do with enabling farmers to move off of the land by means of productivity enhancement whereby in the end fewer farmers are needed to feed the population. That was the first take home message; it turned out to be too long, second one will be very short.

Markets are the vehicle for scaling up and where they don't work we know how to create them. We know how to do that, we need to do it more systemically and with more impact – perhaps covering more geographies, more value chains and so on. But it's not rocket science, we know how to do it, partnerships are the vehicle for it again and partnerships are, there is no cookbook, partnerships are specific, every single partnership is a world of its own, it needs to be negotiated, we need to go through the transaction costs that a partnership entails and so on. But it is doable if that's what you're asking me, yes, the answer is yes and I'm optimistic with respect to what we've been discussing at this conference.

Facilitator: Thank you for that optimistic close. Let's thank that audience, the panel and particularly Chris (on satellite link) for having got up at some ugly hour in the morning. You can go back to bed now Chris.

A. Chris Brett (panel): No its fine, I don't think so, I'm in the office. The day is starting, so there we go. Thank you very much for the opportunity.