



Implementing Public-Private Partnerships in Agriculture

Creating Value for Smallholder Farmers

March 26-27, 2012, Ottawa, Canada

Contents

Welcome and Opening Remarks.....	3
David Malone, President of the International Development Research Centre (IDRC)	3
A New Era of PPPs in Agriculture and the Pursuit of Food Security for All.....	3
Martin Taylor, Chairman of Syngenta	3
Conference Roadmap and Outcomes	4
Sara Boettiger, CEO of Global Access to Technology and Development (GATD).....	4
Panel: PPPs to Meet the Rising Global Demand for Food	4
Panel: Catalyzing PPPs in Agriculture and the Food Supply Chain.....	6
Panel: Partnering to Achieve a New Vision for Agriculture	8
Panel: Responsible Sourcing PPPs.....	11
Panel: Agricultural Pull Mechanism	14
Partnership Development Platform.....	17
Panel: What Can We Learn from PPPs in Global Health?	18
Panel: Experience in Brokering & Managing Good PPPs	22
Parallel Panel 1A: Smallholder Farmer Credit & Insurance	25
Parallel Panel 1B: Accessing Markets—Food Safety Standards and Exports.....	27
Keynote Presentation by the Parliamentary Secretary to the Canadian Minister of International Cooperation, Lois Brown.....	30
Parallel Panel 2A: ICTs and Mobile Applications—Enabling PPPs in Agriculture.....	30
Parallel Panel 2B: Intellectual Property Rights (IPR) Management & Biosafety Challenges	34
Discussion of Conference Outcomes and Mapping the Way Forwards	36

Welcome and Opening Remarks

David Malone, President of the International Development Research Centre (IDRC)

The conference began with welcome and opening remarks from **David Malone, President of the International Development Research Centre (IDRC)**. Mr. Malone spoke of how IDRC and the Syngenta Foundation have been working together over the past year to identify lessons learned from public-private partnerships (PPPs) in agriculture. He outlined the factors contributing to successful PPPs that have been identified from the joint work: a shared understanding of the way each partner does business and what each brings to the table, a clear purpose for the partnership, understanding the role of technology, and letting partnership champions develop mechanisms together to which parties are accountable.

A New Era of PPPs in Agriculture and the Pursuit of Food Security for All

Martin Taylor, Chairman of Syngenta

Martin Taylor, Chairman of Syngenta, expressed his anticipation of a productive discussion during the conference, and his hope that the conference would usher in a new era of PPPs. He noted that PPPs combine complementary strengths to achieve benefits that none can produce on their own, towards the destination of sustainable food security for all.

Mr. Taylor described obstacles to sustainable food security such as population increase, lifestyle changes, climate change, declining natural resources, and noted the marked imbalance between where money is invested and where it is needed. He spoke of how innovation in science and technology, and in public policy and management will be needed to feed the world, and indicated that PPPs have a crucial role to play in uniting actors and sharing resources for innovation. He drew attention to the resource and efficiency rationale for PPPs, pointing out the role of government in maintaining law and order and in providing an enabling environment, and the role of the private sector (in the pursuit of business objectives and profit in social and ethical ways) in research and development, delivery of tailored services to farmers and improved access to markets. He emphasized that smallholder farmers do not want charity—they want good seed, solutions for flow fertility and irrigation, pest and disease control, information and training, health care, and above all, access to markets. He described programs that are facilitating farmers' access to these items through PPPs. The Syngenta Foundation has brokered several PPPs, providing the "catalytic nudge" to solve issues such as lack of trust and funding gaps, and to promote the culture of technology transfer. The foundation's vision is to link farmers to markets and to set the stage for a transformation in agriculture towards environmental sustainability.

Mr. Taylor concluded by noting that common obstacles to forming successful PPPs can be overcome by getting the right funding model (it is not always the private sector that should pay), establishing mechanisms for intellectual property management that are mutually beneficial, and trust between partners.

Conference Roadmap and Outcomes

Sara Boettiger, CEO of Global Access to Technology and Development (GATD)

[Sara Boettiger](#), CEO of Global Access to Technology and Development (GATD) highlighted the centrality of food to development outcomes and provided an overview of the conference panels. She noted that the conference is bringing together strategic thinkers so that they can come up with ideas and recommendations for IDRC and Syngenta on how to make better PPPs.

Panel: PPPs to Meet the Rising Global Demand for Food

Global trends (including population and income growth, urbanization, natural resource degradation, climate change, and the need and scope to modernize agriculture and food supply chains) are creating challenges, but also opportunities. The latter may remain elusive unless addressed through partnerships that balance private and social incentives and goals. This panel clarifies the relevance of PPPs in agriculture and the 'field-to-plate' supply and value chain.

Panelists:

- [Pamela Anderson](#), Director General, International Potato Center (CIP), CGIAR—Moderator
- [Dan Cosgrove](#), Vice President, Pioneer Hi-Bred International Inc.
- [Carl Pray](#), Professor, Rutgers University
- [Kenneth Quinn](#), President, The World Food Prize Foundation
- [Surampudi Sivakumar](#), CEO Agribusiness, ITC Ltd.

After a few remarks on the panel topic by the moderator, **Pamela Anderson, Director General, International Potato Center (CIP), CGIAR**, each panelist spoke in turn. **Carl Pray, Professor at Rutgers University**, described his experience since 1982 in documenting the growth of the private sector in developing countries and pointed out the recent phenomenal growth of the private sector in developing countries. **Surampudi Sivakumar, CEO Agribusiness, ITC Ltd.**, highlighted his company's role in supporting more than 5 million farming families and spoke of how in India is facing a transition from an economy that is addressing shortages of food to one in which consumers seek variety, quality, food safety and convenience, all of which will require a much larger role of the private sector in delivering value. PPPs are going to be critical in the transition to the future. **Dan Cosgrove, Vice President, Pioneer Hi-Bred International Inc.**, spoke of how his company approaches partnerships in agriculture, emphasizing the importance of identifying key partners, shared values, inclusion, and recognizing different interests in the partnership. **Kenneth Quinn, President, The World Food Prize Foundation**, described his organization and drew attention to a new prize it is offering, the Norm Borlaug Award for

Field Research. Ms. Anderson spoke of CGIAR's experience with PPPs, highlighting the successful use of a participatory market chain approach to launch new potato products.

Panel discussion began with a focus on the importance of PPPs in agriculture. Mr. Pray noted that the unprecedented demand for agricultural products is a problem but also a huge opportunity that presents a strategic point in which the private sector, in collaboration with the public sector, can pull farmers out of poverty and help people that are left behind (e.g., through employment from growth). Mr. Sivakumar pointed out that PPPs provide a mechanism that can align conflicting pulls in agriculture. Mr. Cosgrove spoke of the urgent need to increase food production by 70% by 2050. To achieve this, the rate of global productivity needs to increase, and no one group can do it all alone. The sooner one starts, the better chance there is of getting there. He noted that the food security issue is best addressed at the local level, as the vast majority of food is consumed where it is grown. Mr. Quinn highlighted the political urgency of the situation. Agriculture is now on the agenda of world leaders, presenting a special opportunity to put in structures and obtain long-term commitment to build things that will work over time.

The panel discussed whether PPPs can be made to work for the poor. Mr. Quinn said that PPPs can make a difference in bringing advice or technology to villages if the needs of farmers are understood. He emphasized the importance of infrastructure (roads, communications, etc.). Mr. Cosgrove pointed out that budget issues need to be considered: the poor are not always at the top of partners' lists of interest, and the challenge is to align strategies as a group to identify how to solve the problem of poverty. Mr. Sivakumar said that farmers need to be connected to the market at the micro level and governments should play a role in providing core infrastructure. Synchronization between the public and private sectors is needed. Mr. Pray noted that the right policies need to be in place to make it profitable for small farmers, input companies, and processors. Ms. Anderson suggested defining a focus to get people to contribute in their specific capacities, and thinking broadly about how to bring about an enabling environment.

The panel examined ways to create new ways of working together. Mr. Pray noted that governments in countries like India, Brazil and China are making major investments, with private sector collaboration, in technology development. These investments can introduce technology and money that can be the basis for sustainable development. The private and public sectors are making more matches with Southern scientific powers to operate in countries that do not have access to this technology. Countries in the South are happier to work with the private sector if the companies are based in India or Brazil instead of being big multinationals. Mr. Pray noted that PPPs provide opportunities but also bring about more complexity. Mr. Sivakumar spoke about the need to build market-based institutions to manage risk in triangular partnerships between wealthy, rapidly growing, and poor countries. Mr. Cosgrove pointed out that one way to work together was to look for and work in areas that one group cannot enter but others can.

Panelists suggested ways in which PPPs could be accelerated. These included: arranging PPPs by calling a meeting of leaders (first, political leaders, then business ones) in which commitments are made to

eradicate hunger in 10 – 20 years; providing opportunities for potential partners to meet and find mutual interests; harmonization of the regulatory, intellectual property, and commodity transfer systems; moving from a mass customized agricultural extension system to a personalized system in knowledge transfer (so that solutions are co-created with farmers); and prioritizing regulations to allow for technology transfer between countries.

Discussion was opened to the floor. The following points were raised:

- A social learning platform (with examples of success stories and key lessons) should be created to accelerate PPPs.
- It is essential that farmers be recognized as equal players in agricultural partnerships, even if doing so may multiply complexity. Investment should be made in developing farmers' organizational capacity so that they can represent their own interest and participate as equal partners.
- Successful models of PPPs can be duplicated or replicated; however, one size does not fit all. There are very specific food security needs in different areas, for which different applications will be needed. Institutions should begin to document process models for PPPs. These models can be validated and necessary modifications noted when moving to other regions.
- Research and development capacity has changed over the past 20 years. There is evidence that public sector research and development capacity has shifted from Europe and the United States to the South, to China, Brazil, India, and South Africa. Big countries are becoming regional suppliers of technology to the areas around them, mostly through the private sector but also through the public sector. Barriers to technology transfer are therefore important.
- There are problems in getting research and development to focus on crops that are most important to the poor. The CGIAR centres deal with 10 -12 food crops that the multinationals are not concerned with, but the centres are underfunded (the research and development budget for Syngenta is larger than the budget for the entire CGIAR system).
- Government leaders should start PPPs and urge people to join.
- There will be gainers and losers in PPPs. Depending on their capacity, the losers can make sure that the PPPs do not work. There is a need to identify the losers and compensate them to accept change.
- The mindset in PPP should not be that of a zero sum game. Instead of arguing about a slice from the pie, the approach should be to try to make the pie bigger; e.g., by getting into a triangular partnership; bringing in other partners; or including political, geographic and corporate components in identifying partners so that the interests are large enough in the PPP that everyone feels a winner.

Panel: Catalyzing PPPs in Agriculture and the Food Supply Chain

Successful partnerships balance and align the incentives, expectations, obligations, and rewards. PPPs may emerge as a result of incentives and resources 'internal to the partners' (e.g., the desire to access technology or new markets, CSR, social, or environmental aspirations) or

'external' (e.g., tax incentives, subsidies, external financing). This panel considers the broad landscape of motivation, incentives and financing, and asks how we can improve incentives to form more PPPs in agriculture.

Panelists

- [Augustine Langyintuo](#), Head, Policy and Partnerships, AGRA—Moderator
- [Sannadi Baskar Reddy](#), Director, Agriculture, Federation of Indian Chambers of Commerce and Industry (FICCI)
- [Keith Palmer](#), Executive Chairman, AgDevCo
- [Amit Roy](#), President and CEO, IFDC

Augustine Langyintuo, Head, Policy and Partnerships, AGRA, and moderator of the panel, presented the panel topic and asked panelists to introduce themselves. **Keith Palmer, Executive Chairman, AgDevCo**, described himself as a serial creator of PPPs in infrastructure. **Sannadi Baskar Reddy, Director, Agriculture, Federation of Indian Chambers of Commerce and Industry (FICCI)**, spoke of how FICCI is trying to anchor partnerships across India through its Million Partners Initiative, and drew attention to the challenge of grounding partnerships in agriculture and the importance of creating an enabling environment to address the trust deficit. **Amit Roy, President and CEO, IFDC**, described how his organization looks at partnerships as opportunities and emphasized the alignment of partnership objectives so that all partners understand their respective roles. Mr. Langyintuo spoke of how AGRA was created to catalyze PPPs in Africa, and pointed out the need to involve both the public and private sectors in identifying the problem, advocating change, and working on the issue.

Panel discussion began. Mr. Roy spoke about how incentives play an important role in PPPs, citing the example of fertilizers. Improving fertilizer effectiveness is necessary for increased food production, but the private sector is concerned that volume sales will go down if fertilizer efficiency is increased. In fact, farmers will use more fertilizer as more effective products become available. Mr. Roy mentioned incentive structures in dealing with intellectual property (e.g., price access points, exclusive rights for a certain period of time, proportions of market share) and described the different incentives available at every step in the commercialization of cassava. Mr. Reddy drew attention to stability and consistency as strong incentives, giving the example of contract farming. Mr. Palmer highlighted the challenge of creating capability to bring together all necessary elements (e.g. infrastructure, risk management of inputs) at the right time so that the overall outcome is good for farmers and the private sector. On-the-ground capability to build trust and confidence is needed. He recommended that public resources be invested to close the profitability gap for the private sector at the start of ventures.

Mr. Palmer spoke about how governments need to invest in agriculture. Mr. Roy suggested that PPPs consider ways to protect private sector investment, while Mr. Reddy proposed that governments put in place mechanisms to reduce investment risks. Mr. Roy noted that the private sector is not reluctant to engage in PPPs but lacks understanding about PPPs and does not know how to participate. Mr. Baskar raised the issue of political sensitivity that governments face in finding partners for PPPs. Mr. Palmer

said that it is a pervasive reality that politics is mixed in policy making and Mr. Roy agreed, citing the example of subsidies.

Mr. Palmer pointed out that major farming operations in emerging markets have farming expertise that can be brought to bear. Effective PPPs need to seek out people who have interest in making money and contributing to the development of agriculture in ways that smallholders can benefit. The missing ingredient is capital—funding needs to be arranged.

Panelists discussed areas in which incentives could bring about the biggest change. Mr. Reddy identified policy innovation to create an enabling environment for PPPs as a priority area. Mr. Roy agreed, and also suggested building awareness between the public and private sectors about opportunities, and addressing barriers to trade. Mr. Palmer proposed investing in business incubators focused on the breadbasket regions.

Discussion was opened to floor participation. The following points and questions were raised:

- Politics and policy are hard to separate in the case of India's 2-year moratorium on growing genetically modified brinjal. Farmers could not be mobilized into a stronger group, the scientific community failed to create public awareness about the technology, the common person was not given assurance that the crop would be safe, and policy makers did not close public consultation after receiving scientific approval.
- Ministers in government with different portfolios (labour, social welfare, etc.) all need to have awareness of agriculture.
- Youth need to be considered in PPPs. Government's interest is labour availability, and so will be concerned about training and labour ability.
- Climate change will have a huge impact on agriculture. With increased weather volatility, risks to smallholder farmers will become even more acute. Irrigation can address this volatility but mobilization of capital will be necessary.
- Farmers should be included in this discussion on PPPs. These meetings would have more urgency if farmers could participate, or if they could be held at their venues.
- Instead of focusing on individual PPPs, consideration should be given to the bigger picture, to how government interacts with the private and civil sectors, and to the question of who should be brought to the table to influence policy.
- *Do government measures such as input subsidies for fertilizer and incentives in the commercialization of cassava create problems?* [This question was raised, but not discussed as there was not enough time.]

Panel: Partnering to Achieve a New Vision for Agriculture

PPPs are a central aspect of implementation of the World Economic Forum's 'New Vision for Agriculture'. This panel highlights the scope of the multi-stakeholder New Vision initiative. It

assesses the implications for, and implementation aspects of, partnerships in agriculture involving farmers' organizations, the business sector, government and civil society.

Panelists

- [Lisa Dreier](#), Director, Food Security and Development Initiatives, World Economic Forum
- [Beth Sauerhaft](#), Director, Global Environmental Sustainability, PepsiCo
- [Martin Taylor](#), Chairman, Syngenta—Moderator
- [Simon Winter](#), Senior Vice President for Development, TechnoServe

The panel began with a presentation by **Lisa Drier, Director, Food Security and Development Initiatives, World Economic Forum** on The New Vision for Agriculture Initiative. The initiative is a market-based approach to achieving food security, environmental sustainability and economic opportunity through agriculture. Key partners are 28 global corporate champions, government partners, knowledge partners, and others (including donor agencies and farmers' organizations). The initiative is based on the premise that agriculture can be improved by creating specific solutions along the value chain. Food value chains are part of a larger system, which must also be addressed. Each and every stakeholder (the public, private and civil sectors) has an important role to play. The initiative is helping to catalyze and support multi-stakeholder partnerships in numerous countries, and is also working to advance progress on high-level global platforms such as the G20, the G8 and the World Economic Forums' Global Agenda Council on Food Security.

Panel discussion on the initiative followed. **Simon Winter, Senior Vice President for Development, TechnoServe**, observed that the New Vision offers huge potential for a more systematic approach, and that the World Economic Forum provides a convening platform to bring together different stakeholders. **Beth Sauerhaft, Director, Global Environmental Sustainability, PepsiCo**, described the New Vision as the perfect stage for and the perfect convenor of partnerships. PepsiCo has been involved in the initiative since its inception. **Martin Taylor, Chairman, Syngenta**, and moderator of the panel, spoke of how the World Economic Forum's annual meeting at Davos provides the "catalytic nudge" for partnerships.

Mr. Taylor drew attention to the distinction between subsistence and semi-commercial smallholder farmers, noting that the commercial sector's interests are to connect with the latter. He also noted that multinational companies' involvement in the food security agenda receives support as long as the world trade system is in order; however, the system may be suffering a little from hidden protectionism. Lastly, he described problems associated with regulation: lack of coordination from country to country, the time factor, and the cost. He noted that one reason agricultural input markets are so concentrated is because only few companies can afford to play the game. Hi-tech participants from Brazil, South Asia and China can only become involved if the cost of regulation comes down.

Panelists shared their experiences with PPPs. Ms. Drier described a project in Kenya in which a group of companies attempted to develop inclusive business models, while government was supportive at a distance. The project came up with innovative models but could not overcome barriers. A more systemic

approach was needed. Mr. Winter described how TechnoServe was brought in to work out agreements made at a high level between the U.S. government and private companies. In another case (Guinness working in the sorghum sector in Ghana), development assistance funding ran out before the company had finished its work. His experience has been that it is excessively challenging to have competing players in the same alliance. Ms. Sauerhaft described PepsiCo's challenges in helping growers access capital. The company has had to fight with perceptions that the farmer is stuck in a long-term contract and missing out on a price premium somewhere else. PepsiCo has also had to fight perceptions of land grabs: as the productivity of land is demonstrated, the land becomes attractive to aggregates and suddenly the company is working with medium- to large-holders instead of smallholder farmers. PepsiCo also faces challenges in setting a price point for the final product that is affordable by the middle class.

Mr. Taylor spoke about how many people are suspicious of foundations associated with or kept by companies. He noted that Syngenta AG's understanding of smallholders and its comfort in dealing with them derives from the work of the Syngenta Foundation. Without the foundation, the company would be slower in doing what it's doing.

Discussion was opened to floor participation. Several questions and points were raised, as summarized below:

- *How can commitment be driven deeper, to last for a longer period of time?* Ms. Drier responded that the New Vision is creating a commitment structure, with the World Economic Forum acting as the key incentivizer and motivator to drive progress and to raise leadership support and visibility. Commitment has to be internalized into institutions and needs to be driven by self-interest. Ms. Sauerhaft said that corporate commitment can be obtained if there is a business case, or if companies can see proof of concept. Mr. Winter noted that when public donors are involved, it is difficult to obtain commitment for 10 year periods, as donor lifecycles for funding do not operate that way. He suggested placing "gates" at 3 to 5 year intervals so that support can be kept in principle while moving to different horizons. Ultimately, public donors are not needed so it is possible that the private sector can take over after 5 years. Mr. Taylor noted that understanding realistic timeframes for different organizations comes down to understanding the culture of partners.
- *How can coordinating structures be kept lean and efficient? What is the manageable scope for PPPs?* Ms. Drier answered that starting work on a pilot scale with one commodity is better than large coordinated projects. Mr. Winter suggested keeping the scope manageable by focusing on one aspect of the industry, value chain, or sector, or focusing on just one geographical region.
- *How will gender issues be factored into PPPs?* Ms. Sauerhaft responded that gender and social issues are part of PepsiCo's sustainability programs. Mr. Winter noted that alignment of incentives in PPPs is the critical factor in their success, and gender issues must be allowed onto the agenda during negotiations. The business case must also be made for empowerment of women.

- *How can research such as that produced by the CGIAR system help the New Vision for Agriculture?* Ms. Drier responded that research has a very important role to play and should be actively involved in the partnership process, especially when focusing on specific crops. Mr. Taylor added that from Syngenta’s work with CGIAR, it is evident that the CGIAR centres have much to contribute. Ms. Sauerhaft added that CGIAR’s research on specialty crops and help in capacity building (training youth in research and farming practices) would be useful.
- PepsiCo has sorted out distribution problems in that its products can be found everywhere. There is much to learn from PepsiCo in this respect.
- *Should PPPs be competitive, or should they be regulated or coordinated in some way?* Mr. Taylor said that the value of competitive environments is that they offer a diversity of different solutions. Ms. Drier added that the Consumer Goods Forum has done a great job in creating consensus and commitment throughout industry, by facilitating and brokering active partnerships. Other types of organizations, depending on their type of activity, may use a different approach. Mr. Winter drew attention to the unforeseen consequences of too much competition. Too many PPP structures or alliances competing for the farmer’s or local entrepreneur’s attention, all offering “carrots,” can be very confusing. Donor coordination at the higher and local level is needed. Ms. Sauerhaft added her agreement, and pointed to the need for harmonization.

Panel: Responsible Sourcing PPPs

Standard-compliant, traceable, and responsible sourcing of farm, horticultural, livestock, and fisheries products from small farmers is a ‘growth industry’ driven by consumer preferences and concerns. For-profit/non-profit partnerships often play a role in ‘getting things going’. This panel examines opportunities and constraints for engaging smallholder farmers in sourcing practices, including contract farming.

Panelists:

- [Nicolas Bedouin](#), Project Manager CAMCOA, Syngenta
- [Jason Potts](#), Coordinator and Co-Founder, Sustainable Commodity Initiative—Moderator
- [Richard Rogers](#), Senior Program Officer, Access & Markets, Bill & Melinda Gates Foundation
- [Kip Walk](#), Director, Cocoa Department, Blommer

Jason Potts, Coordinator and Co-Founder, Sustainable Commodity Initiative, and moderator of the panel, opened panel discussion with a few remarks on responsible sourcing. He noted that responsible sourcing means the integration of social and environmental costs into the supply chain and is therefore about building a sustainable economy. He described the economy as a PPP and envisioned a future in which systemic change in the economy is brought about by responsible sourcing. He remarked on the rapid growth over the past two decades in initiatives such as codes of conduct and voluntary standards. These initiatives, originally “niche” initiatives, have grown at the rate of 20-40% per year over the past 5 years, to the point where they now make up an important part of supply and have become understood

as part of the solution to problems. Standards are a type of partnership in which the private sector drives marketing. In order to survive, standards need to be co-financed by the public sector. Mr. Potts noted that the history of responsible sourcing is one of PPPs. He asked panelists to consider how responsible sourcing interacts with smallholders, how responsible sourcing can be done sustainably, and whether barriers will be increased if additional principles are applied to responsible sourcing.

Nicolas Bedouin, Project Manager CAMCOA, Syngenta, described his work in bringing different partners to work together to improve the income of farmers in cocoa, noting that these partnerships often lead to increased production and quality.

Kip Walk, Director, Cocoa Department, Blommer, spoke about how his company is running corporate social responsibility and sustainability programs in Asia, West Africa and the Americas. Company involvement in these programs began 10 years ago with the primary purpose of ensuring supply. Blommer has worked with USAID in Indonesia to train farmers in proper farming techniques and post-harvest handling, and in capacity building. Blommer has also worked with the World Cocoa Foundation and with local governments to help out with infrastructure targets. It is working with the Gates Foundation in West Africa.

Richard Rogers, Senior Program Officer, Access & Markets, Bill & Melinda Gates Foundation emphasized that the private sector is the one sector that generates wealth. Government and NGOs develop the enabling environment and level the playing field so that businesses can create wealth. He observed that farmers have a diversity of needs and can be segmented according to what is important to them. The Gates Foundation views the farm as a holistic business and asks how it can support farmers and what governments can do to provide an enabling environment. The foundation looks at PPPs at 3 levels: the country level (partnerships to enable the right policies), the individual company level (partnership with one company for a particular project), and the industry level (partnerships with a collection of companies). This approach has allowed the Gates Foundation to get traction relatively quickly, and allows for scalable solutions. The foundation has worked with cocoa, cotton, coffee, cashews, and is starting to do the same with rice. It is now taking a country-specific approach. The foundation sees the value of leveraging core competencies, and using convening power to bring in competitors in industry. It acts as an honest broker between competitors, buys down risk, shares best practices, and provides metrics. It is learning as it goes and trying to figure out the right balance.

Mr. Potts remarked that there is a risk in excluding the poorest of the poor when adding a range of requirements (e.g., potable water, no child labour, environmental management plans) to quality criteria that smallholder farmers must meet (compliance costs become too expensive). He asked panelists about the kinds of challenges smallholders face in accessing higher value supply chains and markets and the strategies that can be put in place to address these challenges.

Mr. Rogers noted that the private sector's move from compliance to sustainability programming shows an evolution of shared values. Companies' actions can have positive social impact while being good for business. He raised the issue of whether certification is actually certifying poverty instead of other

criteria, and suggested using a dashboard of critical metrics to measure performance in sustainability. He reiterated that it was critical to talk more to farmers and understand their diverse needs, and proposed that farmers be given the tools to calculate their own return on investment in meeting standards.

Mr. Walk noted that certification is just another tool but one that brings a lot to the table (allowing access to farmers, bringing in skillsets that industry is not capable of bringing to farmer). Certification is a way of marketing to consumers and care must be taken that poverty is not being certified. As well, many issues are not addressed in certification models; e.g., capacity building, building income levels, yield, and quality.

Mr. Walk described the challenge that Blommer faces in accessing cocoa in the Ivory Coast. Only 20% of the cocoa comes through cooperative structures. Certification, despite its extra costs, will call producers' attention to working within cooperative structures to achieve higher income and hopefully, better yield. As cooperative structures provide the best mechanism for communications with farmers, companies will be able to communicate what they are doing. Mr. Bedouin added that certification can be very important for the farmer, by allowing them to feel that are part of the value chain.

Discussion turned to whether the growth of certification presents an opportunity to develop PPPs. Mr. Bedouin said that certification can be a way of leveraging investment in infrastructure. Mr. Walk added that certification will move cocoa production into a new arena. As the consumer gets more educated, there will be growing demand for certification, which will lead to benefits for farmers (additional skills, increased income due to higher prices in certified products). Investment in business and technical skills will drive certification and the consumer role will be to leverage public money. Mr. Rogers noted that for sustainability, private sector investment in PPPs must come from the business unit and not corporate sustainability programs. A clear exit strategy for investors is needed and part of the exit strategy can be certification. He gave examples of capacity building for aggregated groups of farmers, noting that aggregation allows for easier communication and traceability, both of which facilitate standard setting, which in turn provides an exit strategy for donors.

Panelists discussed other promising forms of responsible sourcing. Mr. Walk noted that industry has been bringing training to the farm level over the past few decades (certification is a recent add-on). Outside of certification, work can be done to aggregate farmers, to develop proper governance structures (so farmers can access world markets) and to approach international banks. Mr. Bedouin pointed out that commitment for the long-term is important, and Mr. Potts observed that responsible sourcing is relationship-based and that building trust and commitment can complement or take the place of certification. He cited capacity building and building infrastructure as other avenues for responsible sourcing.

Discussion was opened to floor participation. The following points and questions were raised:

- *What has been the impact of the advent of technology, particularly mobile phones?* Mr. Walk noted that cell phones are prolific in agriculture and are being used to communicate pricing and

techniques. Mr. Rogers added that the biggest opportunity in cell phones is “mobile money,” which can reduce transaction costs in transferring cash from buyers to sellers. Mr. Bedouin said that mobile phones provide an easy way for contacting farmers about training and for farmers to access networks in his project.

- *Can smallholder farmers make a sustainable living with their size of business?* Mr. Rogers responded that farmers have indicated that business training is more important to them than agronomy training. Farming is a diversified business. Farmers look at total income, cash flow, and food security. It is important to give farmers the tools to decide for themselves whether the returns on investment of their decisions are worth it. Mr. Walk added that Blommer talks to farmers about diversification, and about developing plans to smooth out market moves and become stronger at forecasting the income stream. Mr. Bedouin agreed on the importance of diversification to farmers. Mr. Potts commented that the consumer’s role is to know what implications responsible sourcing has for farmers, and to help producers document their cost of production.
- *How can responsible sourcing deal with the issue of child labour?* Mr. Walk responded that child labour is acceptable if the tasks children are performing are age-appropriate. Mr. Potts observed that neocolonialism may be in play in that consumers are setting standards which are not necessarily the right standards for an international system. He noted the need for an international system that is sensitive to differences and that will adapt standards to different places. Mr. Rogers suggested tackling the symptoms and root cause of child labour—poverty. Farmers say that if their incomes are increased, they will send their children to school. If income is not sufficient, then everyone has to chip in with their labour.
- *Are emerging economies that have become importers of food interested in sustainable sourcing?* Mr. Walk answered that it depends on the region. In the cocoa sector, the concept of responsible sourcing has not historically been present in emerging economies. For the confectionery industry, manufacturers in branded companies will introduce the concept as they apply corporate policy worldwide. In such a case, it will be industry that drives sustainable sourcing, not consumers.
- Mr. Rogers noted that it comes down to developing the value proposition for responsible sourcing.
- Mr. Bedouin noted that if the image of agriculture can be improved, more young people will be interested in working on farms. Mr. Potts concluded the panel by saying that the end gain of responsible sourcing is a proud and responsible sector that will entice people to work in it.

Panel: Agricultural Pull Mechanism

The Agricultural Pull Mechanism is an initiative spearheaded by Canada and other donors to pay for innovation and breakthroughs on delivery, for example through advanced market commitments. Partnerships play a key role. This panel is designed to bring out the practical aspects, including plans for implementation.

Panelists:

- Nick Leswick, Director, International Finance and Development Division, International Trade and Finance, Finance Canada—Moderator
- [Susan McAdams](#), Director, Multilateral Trusteeship and Innovative Financing, Concessional Finance & Global Partnerships, The World Bank
- Grahame Dixie, Team Leader, Agribusiness Unit, ARD, The World Bank
- [Jaykumar Menon](#), Senior Director, Education and Global Development, Prize Development, X-PRIZE Foundation
- Orin Hasson, Associate Program Officer, Bill & Melinda Gates Foundation

Nick Leswick, Director, International Finance and Development Division, International Trade and Finance, and moderator of the panel, opened panel discussion by introducing the panel topic and describing the involvement of Finance Canada in the Agricultural Pull Mechanism Initiative.

Susan McAdams, Director, Multilateral Trusteeship and Innovative Financing, Concessional Finance & Global Partnerships, The World Bank, gave a presentation on the Agriculture Pull Mechanism Initiative (AGPM). She first introduced the concept of innovative financing and explained how pull mechanisms differ from push mechanisms. “Pull mechanisms overcome market failures by using results-based payments to incentivize innovation and kick-start markets. They offer *ex post* payments for results defined *ex ante*,” she said. She gave examples of how pull mechanisms are used in health, and examined the potential of using pull mechanisms in agriculture. The AGPM is designed to build ways to encourage technological innovation as well as adoption of better products, processes and technologies, and then to assess how effectively the pull mechanisms worked. Ms. McAdams described some issues to consider in applying pull mechanisms in agriculture, such as the fragmentation of the sector and potential trade-offs (e.g., technological innovation versus smallholder adoption (or both), and smallholder welfare versus food security (or both)).

Jaykumar Menon, Senior Director, Education and Global Development, Prize Development, X-PRIZE Foundation, spoke about how a prize is a species of PPP and a type of pull mechanism. He described different types of prizes, and noted that a prize is a form of results-based financing and an incentive mechanism that can be pointed at different targets—leaders, individuals, companies. A prize can be awarded for a business, social or technology achievement. Expert stakeholders can be convened for the prize design process, which should take into consideration factors such as whether the prize will be transformative, whether there is an objective measurable goal, what leverage can be obtained, etc.

Grahame Dixie, Team Leader, Agribusiness Unit, ARD, The World Bank, spoke about how pull mechanisms can be a tool to reach parts of aid that are not reached by other mechanisms. The private sector can deliver results if harnessed, and this is important in a world that is changing rapidly. He noted that adoption of the pull mechanism will face some difficulties in the agricultural sector. Unlike in the health sector in which five decision makers had to be persuaded, there are thousands of farmers that will have to be persuaded. He also pointed to issues regarding selection of the private sector company to work with the mechanism, observing that the more partners there are, the more difficult it will be.

Orin Hasson, Associate Program Officer, Bill & Melinda Gates Foundation, spoke about why the Gates Foundation is interested in pull mechanisms in agriculture. There are three reasons: pull mechanisms can bring in the private sector, as they allow players to figure out how to bring about certain outputs without following set procedures; they bring in a greater diversity of players (no need to pick winners up front), and they allow donors to take some risks by only paying for end results. He described challenges the foundation has faced in using pull mechanisms, such as finding financing before outputs are produced, defining the appropriate size of prizes or rewards, and determining how much risk should be taken.

Mr. Dixie described pilot projects funded by The World Bank that are using pull mechanisms. These include projects dealing with vaccinations for goats, fertilizer, bio-fortified foods, aflatoxin, and reducing post-harvest losses. There are also prizes for spreading knowledge, and for application of technology to other areas. Mr. Hasson spoke about the Gates Foundation's portfolio approach in using different types of mechanisms.

Discussion was opened to floor participation and the following points and questions were raised.

- AGRA's partnership with a commercial bank for a risk share facility is not representative of a pull mechanism. In a pull mechanism, funds would be provided only once credit is provided to the farmer.
- *Can future tax revenues of governments in cash crops be considered a pull mechanism (in that investors are encouraged to invest in yield increase for future value to governments), in the same manner as social impact bonds in the UK?* Ms. McAdams responded that the focus of the AGPM has been on concrete results rather than future value. Mr. Dixie drew attention to a government initiative in Kenya in the 80s that, by fixing the amount of revenues to be returned to the country to an average price, incentivized horticultural exporters to produce higher valued products.
- *Are pull mechanisms in the agriculture sector different than those in the health sector?* Ms. McAdams responded that it is much easier to use pull mechanisms in the health sector. The agriculture sector is more complex, and pull mechanisms will have to deal with SMEs in a number of different countries with different markets. Mr. Menon added that the health sector has large potential buyers (governments) and existing distribution systems, while the food and agriculture sectors are more fragmented, and consumer preferences play a bigger role in these sectors.
- *To what extent have architects of pull mechanisms thought about their applicability to reducing yield caps?* Mr. Menon suggested that prizes can incentivize intermediate steps as well as end goals but noted that measurement and comparisons will be tricky. Mr. Hasson observed that it would be difficult to apply pull mechanisms to yield caps, but not any harder than applying push mechanisms. Pull mechanisms may be more efficient as they allow for a diversity of players to be creative in reaching an indicator.
- *Have government policies such as subsidies affected entrepreneurs' ability to achieve productivity objectives?* Mr. Leswick noted that export barriers did present difficulties when

pilots for the AGPM began. Mr. Graham added that “how to get products across the border” is a consistent theme in Africa. One way to address this issue is to develop agribusiness indicators so to nudge movement in countries when they see improved or higher indicators in other countries. Mr. Menon remarked that policies can be enablers instead of impediments.

- *What happens after a prize is awarded?* Mr. Menon noted that prizes can be designed so that the impact of the prize lies in itself. Some transformative impact is required to win the prize, so the action to bring about this impact launches one on an envisioned trajectory. If further achievement beyond that is desired, partnerships can be formed with others. Mr. Dixie added that projects can design after-prize components that will continue after the award.
- *What about offering prizes for creating PPPs?* Mr. Menon drew attention to the Municipal Seal of Approval, in which municipalities get awards for meeting an MDG objective, and a prize offered by the US Housing Development, for which each competing team has to be a partnership between an NGO and a private developer. He added that a prize can simply be a certificate.
- *How can pull mechanisms solve the last mile problem in agriculture, especially since last mile solutions are context-dependent?* Mr. Leswick responded that private sector distribution systems can be leveraged for scalability to other geographic regions. Ms. McAdams noted that the last mile problem in health is not context-dependent as in agriculture and pointed out that there are systems in place to distribute vaccines. Mr. Hasson added that in three pilot projects of the Gates Foundation, payments are not provided unless farmers have adopted products. If the last mile solution is context-dependent, local players should be allowed to adapt delivery.

Partnership Development Platform

Discussion of plans within SFSA and IDRC to launch a platform of resources for PPPs in agriculture, and move forward an innovative research and advisory agenda.

Speakers:

- [Jean Lebel](#), Director, Agriculture and Environment, IDRC
- [Marco Ferroni](#), Executive Director, Syngenta Foundation for Sustainable Agriculture

Jean Lebel, Director, Agriculture and Environment, IDRC, summarized key points from the day’s discussions that can be used to move forwards on developing a platform of resources for PPPs in agriculture, and an innovative research and advisory agenda. These were as follows:

1. Research: syntheses of case studies, to learn more about failures, measuring effectiveness of PPP, downscaling high-level PPPs to a lower level, sustainability over time, application costs, and scalability;
2. Brokerage services for PPPs: creating opportunities for partners to meet, development of small business plans to access resources and to expand, helping out with the IP regime, and certification;

3. Tools and incentives: advanced market commitments, financial tools, and market access and risk management tools and incentives.

Marco Ferroni, Executive Director, Syngenta Foundation for Sustainable Agriculture, remarked that the notion that PPPs are important in the way forward for agriculture had permeated all panel discussions. He highlighted key points made during the day's discussions, such as the need for greater collaboration because of scientific advances, and the creation of a dynamic environment for the private sector brought about by increased demand for food and agricultural commodities in emerging markets. He noted that PPPs can be viewed as transitional mechanisms to kick-start markets and deliver the benefits of research and development in situations of economic growth, or as mechanisms that bridge gaps in the delivery of services. He asked participants to reflect over the type of knowledge management platform that can guide people in developing PPPs in agriculture.

Floor discussion followed. Several points were made:

- Not much has been said so far about where PPPs are failing and what they cannot do. More specific details are needed about which farmers and which companies can use PPPs, and what technologies can be put together through partnerships.
- Can hotspots to close the global productivity gap be created as a starting point?
- A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis might be useful.
- The partnership development platform can provide advice and guidance to PPPs at critical moments.
- Alignment of incentives and promoting the concept of shared value are important factors in PPPs.
- The knowledge platform should have a database of case studies that can be cross-referenced by sector commodities and regions. Successful PPPs require management. Profiles of effective PPP managers are required, and there is a need to train future managers.
- Specific objectives and outcomes should be identified for the partnership development platform. Once those are clear, there are mechanisms for collecting and distributing case studies and providing advisory services. There may be room to get the private sector more involved to support policy related issues, as long as there is a clear business case.
- Each partnership is so different in its needs. The question is how to give each partnership support and build scale at the same time.

DAY 2 March 27, 2012

Panel: What Can We Learn from PPPs in Global Health?

PPPs have a long history in the health sector providing products to the poor. There are key differences, but also many parallels to PPPs in agriculture. Discussion will focus on lessons

learned in the health sector and how they may benefit agricultural PPPs moving forward—as well as vice versa.

Panelists:

- Marco Ferroni, Executive Director, Syngenta Foundation for Sustainable Agriculture—Moderator
- [Hans Rietveld](#), Director, Global Access and Marketing, Malaria Initiative, Novartis
- Anna Thompson-Quaye, Director Global Fund Private Sector Delegation, GBCHealth
- [Marc van Ameringen](#), Executive Director, Global Alliance for Improved Nutrition, GAIN

Marco Ferroni, Executive Director, Syngenta Foundation for Sustainable Agriculture, and moderator of the panel, opened panel discussion with a few remarks on the differences between the health and agriculture sectors. He invited each panelist to introduce him/herself.

Anna Thompson-Quaye, Director, Global Fund Private Sector Delegation, GBCHealth, spoke about how GBCHealth (a coalition of more than 230 companies working to improve the health of their workforces and communities around the world) mobilizes partnerships locally, regionally and nationally. GBCHealth sometimes represents business, and serves as a hub in sharing best practices, case studies, and experiences around corporate health initiatives. At the end of 2011, GBCHealth represented the corporate sector at a UN meeting. **Marc van Ameringen, Executive Director, Global Alliance for Improved Nutrition, GAIN**, described how GAIN was created 10 years ago as a PPP to work around malnutrition. GAIN brokers partnerships and raises funds and is focused on reaching a billion people. It is financing 50 large scale PPPs in 30 countries which are focused on fortifying staple foods. **Hans Rietveld, Director, Global Access and Marketing, Malaria Initiative, Novartis**, briefly described Novartis’s role in developing medicine for malaria. He noted that the critical success factor in making PPPs work is to build on the core competencies of each partner.

Mr. Ferroni asked panelists to comment on the formal nature of business representation in the health sector. Ms. Thompson-Quaye noted that the UN Secretary General had asked Ambassador Richard Holbrooke to mobilize business to engage in the Global Fund to Fight Aids, Tuberculosis and Malaria. GBCHealth helps serve as a focal point for the private sector at the board level for the Global Fund, and is involved with the Roll Back Malaria Partnership. In the health sector, there is a clear business case for why the private sector should get involved, and the incentive is not necessarily profit; business understands that a healthy community is needed to drive economic activity and private sector development. Ms. Thompson-Quaye made reference to using innovative financing mechanisms (advanced market commitments) and the policy aspect in PPPs, and emphasized the importance of tapping into the core expertise of the private sector.

Mr. van Ameringen noted that in the nutrition sector, there has been a struggle to accept PPPs because of the experience with infant formula. Incentives will be needed to get partnerships going. In the nutrition sector, it has taken 10 years to get acceptability that PPPs are a legitimate way forward. The mainstream in this sector still sees the public health system as providing provide 98 percent of what people need. PPPs are a new vehicle and new approach and GAIN has the platform to promote them. He

spoke about how it is a delicate balancing act to include representation of the private sector and described different mechanisms such as partnership councils and alliances at the national level. He noted that while different partnerships do need different platforms, the platforms should be lined up together and incentivized on an ongoing basis.

Mr. Rietveld spoke about the motivation of Novartis in developing malaria medicine. The original motivation was corporate social responsibility, responding to the need to make medicine widely available as possible. However, the company also realized the commercial potential of getting involved. Malaria is the most prevalent disease in sub-Saharan Africa and could act as a “door opener”—if the company could get malaria medicine out there, it could use the same vehicle for other medicines in Africa. Mr. Rietveld noted that ventures must be tied into mainstream business objectives if they are to be sustainable. Novartis received a contribution towards product development so it leveraged internal resources. He added that Novartis has created partnership with students to look at ways to improve stock management at health facilities. The students came up with the solution of training people to use mobile phones to report low stock (providing a phone credit for timely reporting as an incentive) which was extremely successful.

Panel discussion turned to differences between the health and agriculture sectors. Mr. van Ameringen commented that the health sector has had great success in making markets work for the poor. It has harnessed the private sector in getting drugs out at affordable prices. There has been engagement at the macro level, with PPPs structured around delivery of solutions to end some major diseases in our lifetime. In agriculture, there has not been the same engagement of the private or public sectors in reducing inputs. The agriculture sector is not driven by macro level challenges but by micro level issues; it is not coalescing around some big bets. Further, the agriculture sector’s institutions are fragmented. There is hardly enough money to do anything significant and no real entry point for PPPs from the existing institutional architecture. Now that food security is on the G20 agenda, there is a big opportunity to put architectural changes on the agenda that will allow movement from micro- to macro-level challenges.

Ms. Thompson-Quaye commented that achieving outcomes in the health sector and the agricultural sectors are equally complicated. She suggested several ways in which the agriculture sector can learn from the health sector’s experience: getting a corporate champion for the New Vision for Agriculture, creating demand for products and services through social marketing, and mobilizing communities to get their voice heard regarding macro-level issues.

Mr. Rietveld spoke about how partnerships need to have shared values. He described how ground-breaking it was 14 years ago to sign a Memorandum of Understanding (MOU) with the World Health Organization (WHO) in which a private company agreed to forgo profits. The partnership did run into difficulties at some point when it turned out that estimates for demand were far too low and Novartis was exposed as a corporation with poor forecasting power. An overarching plan with a role for each partner is necessary, and there may be some low points to work through.

Mr. van Ameringen commented that in his view, it was harder to achieve outcomes in global health than global agriculture. Increasing yield is the same as increasing drug coverage. The other part of health outcomes is trying to show through biological indicators whether an intervention has had any impact on health (often not, because of links in the supply chain, graft, etc.). He drew attention to a key learning: the highest return on investment is gained through PPPs working with national systems (i.e., actually taking on the whole sector in a country and looking at things that need to be done, lining up incentives, changing regulatory laws, etc.) rather than through individual PPPs. Individual PPPs in the health sector struggle with the public good element being greater than the return on financial investment. Mr. van Ameringen emphasized the importance of incentives and pointed out that while everyone is looking for a slam dunk, the reality is that PPPs investments over a 10 year horizon.

Mr. van Ameringen further noted that there is a misfit between the corporate sector's products and the health sector's objectives. The products of the biggest corporations are not healthy. He added that it is hard to get companies to work together (each company is focused on its brand) and to get partners to work in lockstep. Governments change, corporations move away from certain businesses, players keep changing, leadership changes...it is very difficult to keep them all together. He suggested reviewing the value proposition for partnerships on a one-to-one basis rather than altogether.

Discussion was opened to the floor. The following points and questions were raised:

- *How comparable is the agriculture sector to the health sector in terms of having a crisis that can mobilize the community and drive the formation of a partnership such as the Global Fund?* The establishment of the Committee on World Food Security has private sector representation at the advisory group, and senior management of businesses and top leaders are speaking together more regularly about food security issues.
- The “catalytic nudge” in the health sector was an outraged NGO community. The health issue was elevated by governments to be a national security concern. The agriculture sector is close but not yet at the same level.
- It is not clear if the Rome-based UN agencies dealing with agriculture can work effectively with the private sector. An APEC partnership on food security has been launched and a member of the private sector is co-chair of the partnership.
- *There are many PPPs in research and development in the health sector. How can research and development be applied to orphan diseases?* Mr. Rietveld noted that PPPs can catalyze many brilliant ideas developed in universities.
- *As prevention is better than cure, can mosquitos be sterilized to reduce the harm they cause?* Mr. Rietveld responded that it is humans that host the malaria parasite, not the mosquito. Winning the war against malaria means eliminating the parasite and companies are attempting to do that.
- The incidence of certain diseases such as cerebral spinal meningitis (CSM) could worsen with climate change. PPPs could intervene to make vaccines available and affordable to poor farmers.
- *How can partnerships be formalized to ensure that each partner delivers on its responsibility? How can PPPs be institutionalized so that they do not depend on one individual?* Ms. Thompson

–Quaye responded that it is best to have more than one company involved as a member in advisory groups at the country level. This way, the private sector’s position can be strengthened. She added that mechanisms at the country level are needed for a cross-sector approach, and that MOUs can be used for partnership agreements. GBCHealth convenes business together to agree on modalities of engagement.

Mr. Ferroni brought the panel to a close by remarking that the discussion had shown that at a micro level, PPPs are not different in the health and agriculture sector; at the macro level, opportunities in the agriculture sector have been identified based on learning’s from the health sector, and these need to be pursued.

Panel: Experience in Brokering & Managing Good PPPs

This panel offers a discussion of critical issues in management of PPPs (e.g., confidentiality, IPRs, cultural differences).

Panelists:

- [Ruben Echeverría](#), Director General, Centro Internacional de Agricultura Tropical - CIAT, CGIAR—Moderator
- [Morgan Nzwere](#), Group Chief Executive, Seed Co Limited
- [Joshua Hofheimer](#), Counsel, Sidley Austin LLP
- [Dilip Kulkarni](#), President, Sustainable Agriculture, Jain Irrigation Systems Ltd.
- [Boddupalli Prasanna](#), Director, International Maize and Wheat Improvement Center (CIMMYT), CGIAR

Ruben Echeverría, Director General, Centro Internacional de Agricultura Tropical (CIAT) CGIAR, and moderator of the panel, began the panel with the observation that while PPPs are potentially effective vehicles for joint technological innovation and commercialization of technologies, not all initiatives need to be PPPs. He pointed to the complementarities between the public and private sector in research and noted the need for more public and private research. He noted that the success of PPPs depends on defined objectives, roles and responsibilities; mechanisms for managing disputes; risk management; incentives for commitment and ownership; and clear communication. Low-budget short-term PPPs can be very strategic but involve ephemeral scientific exchanges. Larger PPPs would have more scientific agreements and multi stakeholder platforms. He noted the need to move ahead quickly on scaling PPPs.

Joshua Hofheimer, Counsel, Sidley Austin LLP, described his company’s growing agribusiness practice, which includes working with the public and private sectors to promote the uptake of innovative resources. **Boddupalli Prasanna, Director, International Maize and Wheat Improvement Center (CIMMYT), CGIAR**, made reference to his center’s 15 different cases and categories of PPPs, citing partnerships in research and development, extension of technology to smallholders, and grain storage, as well as community-based partnerships. **Morgan Nzwere, Group Chief Executive, Seed Co Limited**, observed that established seed companies like his company have established distribution facilities and

therefore can play a role in making sure that technologies that are being developed reach customers. **Dilip Kulkarni, President, Sustainable Agriculture, Jain Irrigation Systems Ltd.**, described how his company is involved in irrigation and food processing. The company does a lot of capacity building with partners and has many partnerships, including research partnerships with universities, partnerships with government for infrastructure development, partnerships with the state government for capacity building, partnerships with financial agencies, and a new partnership with people in the villages (“Friends of Agriculture”).

Panel discussion turned to critical issues in brokering PPPs. Panelists drew attention to the following issues:

- Different types of PPPs require different institutional arrangements.
- Both parties must have a clear understanding of objectives and constraints.
- A researcher or lawyer that understands industry is necessary for long and fruitful negotiation.
- Start with achievable goals for national transformation. A particular project can provide the “catalytic nudge” towards national transformation (e.g. Matanga Farms bringing in potato seed varieties to Tanzania). Identify strategic barriers for the success of an initiative and formulate a collective strategy on how to overcome these barriers and how to scale success to the national level.
- Adequate planning, understanding the common interest base, complementary strengths, and investment of time
- Developing a relationship of mutual trust, respect for intellectual property, and commitment to timelines. Communication is key.
- Have a clear understanding of partners’ reputations. Protect reputations. National partners need to better understand operational risks, financial costs, and reputational risk, and how to minimize these through good communications.
- Capacity building and empowerment of local partners and institutions should be fundamental components of every PPP.
- Partnership goals should bring together the objectives of the private and public sectors.
- Clearly agree on what each partner is trying to achieve. A win-win situation is needed.
- Agree on roles. Each party must play the agreed role on all counts.
- Good planning, with details
- Dedicated involvement of both parties
- Well planned financing
- Monitoring and evaluation

Panel discussion turned to the resources needed for PPPs and PPPs that have not been successful. Mr. Hofheimer said that, drawing on lessons learned from private sector collaborations, investment costs (both in time and financial) will be double that initially identified. Mr. Prasanna commented that it requires a good amount of resources to understand the legal implications of PPPs. Financing is not trivial, especially when dealing with cutting edge technologies. Mr. Nzwere noted that his company

often provides in-kind contributions, such as providing resources to conduct training activities and facilities to test new materials, or selling below costs to promote a new seed variety. Mr. Kulkarni observed that funding can be sought after due diligence and legal screening from both the public and private side. If the project is publicly funded, funds must be channelled through a single window. He noted that resources should be put aside for monitoring and evaluation.

Discussion was opened to the floor. The following questions and points were raised:

- A PPP was formed by the German government to launch a sustainability standard. The PPP was driven by the partners even though it had a multi-stakeholder steering committee.
- *Is there a role for beneficiaries of PPPs in the governance of PPPs?* Mr. Hofheimer responded that it is critical for beneficiaries to have a role. Small-scale farmer operations can be considered as part of the private sector; private sector stakeholders are not necessarily all multinationals. He pointed out that it is the actual user of an initiative or technology or product that is going to create a market and suggested that instead of thinking about what benefit can be pushed down, to consider instead what there is a need or demand for (what is the pull)? Local participants (individual or cooperative) should be stakeholders in partnership. Mr. Kulkarni said that the views and confidence of smallholders need to be taken into consideration before implementation of PPPs. He recommended focusing on building awareness among beneficiaries so that they are ready to take up new technologies before starting on a PPP. Mr. Prasanna described how the Gates Foundation is getting feedback from beneficiaries before investing in PPPs.
- It would be useful to have a basic typology of PPPs.
- There is a live database of PPPs in Agriculture on the Syngenta Foundation website.
- *There is a perception in African countries that government should have no business in business. How would PPPs work if this were so?* Mr. Kulkarni responded that the government does have a role in business; it has a role in creating infrastructure facilities, and if the private sector is not available to bring in technology, government should take on this role. Mr. Prasanna added that in India, the Department of Science and Technology has considerable funding to link private business with public sector institutions. Government has an interest in supporting business, if not in getting involved. Mr. Nzwere pointed out that governments are the largest market for his company. Government is a major player in purchasing and distribution of seed. With respect to the spread of technology, private companies do not have the capacity to cover all targeted markets, and government has a role to play in providing necessary extension services, and in reducing barriers to trade, release of seed and sale conditions. Mr. Hofheimer said that governments will play a role in concerns with food security, especially from the regulatory perspective. Partnerships should make sure that government adheres to and implements standards it promulgated towards business. Sometimes, government needs to be educated, and one should know how to work with government. A participant from the floor added that there are many schemes in different government departments in India to set up business incubators.
- It is critical to identify the roles and responsibilities of each partner. Transparency is key.

- Regulations can be barriers. Advocacy is needed to ensure that government is aware of problems with regulation.
- Advocacy is a long term activity. A PPP has been formed between national seeds associations and the Common Market for Eastern and Southern Africa (COMESA) regarding the harmonization of policy and regulation in the region.
- Public services can be delivered with large inputs from the private sector. Why should the private sector not manage research on behalf of the public sector? This would be a form of partnership.

Mr. Echeverría closed the panel by noting that many see the formation of PPPs as a way to obtain more funding in times when public sector budgets are declining. However, he sees PPPs as a way to have impact that cannot be brought about by the public sector alone. He indicated that more time was needed to discuss how to build trust in and manage PPPs for success.

Parallel Panel 1A: Smallholder Farmer Credit & Insurance

Financial services, credit, and agricultural insurance are critical enablers of productivity enhancement and risk management. This panel illustrates the potential role of PPPs to serve the needs of smallholder farmers accessing credit and insurance

Panelists:

- [Bim Hundal](#), Chairman, Lions Head Global Partners—Moderator
- Rajesh Rai, Vice President, Rural Business Group, ICICI Lombard General Insurance Company Ltd.
- [Jayanta K. Sinha](#), Chief General Manager (Rural Business), State Bank of India
- [Gerard van Empel](#), Director, Rabo Development
- [James Wambugu](#), Managing Director, UAP Insurance Kenya

Bim Hundal, Chairman, Lions Head Global Partners, and moderator of the panel, opened the panel by asking about the effectiveness of the credit process for agriculture in the rural sector. He noted that from the user perspective, agriculture is seasonal, so shorter turnaround times are required. He also noted that banks prefer to have insurance tied into credit provision.

Gerard van Empel, Director, Rabo Development, introduced his company, a large Dutch bank that specializes in providing credit to rural areas. The company has minority stakes in many international and foreign banking institutions and its goal is to provide more access to finance in rural areas. The company's preference is for the institutions it works with to be mostly locally owned. The company provides management and technical assistance to these institutions. The banks they have become involved with in Tanzania and Rwanda are now the biggest banks in their countries.

Jayanta K. Sinha, Chief General Manager (Rural Business), State Bank of India, described the State Bank of India as India's largest commercial bank, with over 5,000 branches in rural areas and as many as 8,000 ATMs across India. The bank finances agriculture, using mainly microfinance and self-help groups,

via mobile or kiosk banks. Smallholders constitute 90 percent of the 65 percent of India's labour force that is engaged in agriculture, so there are many loans, even if they are small. Small producers are often excluded from formal banking. Mr. Sinha noted that agriculture is a politically sensitive area in India. Banks are mandated to allocate a certain percentage of all loans to agriculture, but there are no requirements for insurance to be part of the loan package. Indeed, four years ago, the government waived the loans of small farmers, which disturbed the development of a credit culture. The bank has been involved in some good PPP projects, but not with the government. PepsiCo has been a partner in a tripartite agreement with the bank and a farmer group, providing seeds, fertilizer, advice and helping to organize the farmer group.

Rajesh Rai, Vice President, Rural Business Group, ICICI Lombard General Insurance Company Ltd., spoke about how his company began operations in 2003 after the 2002 drought in India. With the World Bank's help, the company has created a weather-based insurance scheme that now covers 10 million farmers. The company is bundling loans and insurance provision, and hopes to provide insurance to more farmers in the next 4 – 5 years.

James Wambugu, Managing Director, UAP Insurance Kenya, said that Kenya still has an underdeveloped insurance market, with only 3 percent coverage. The formal economy is better covered, but the informal economy has not been well insured. His company's goal is to target insurance provision (crop, life and medical insurance) to the informal sector. It faces two key challenges in doing so: the lack of access to health care, and the small size of so many producers. A partnership with the Syngenta Foundation and Safaricom helped to develop a mobile phone-based insurance system. Syngenta helped develop the insurance index and co-invested in weather stations to collect weather event data. Farmers access the insurance when they purchase inputs, paying a 5 percent charge for coverage. When adverse weather occurs, the index calculates the charge/claim, and sends the money through mobile phone. This system was set up in 2009, a year of poor harvest. Since payouts happened that same year, recipient farmers have become the system's greatest advocates. Currently 25,000 farmers are signed up in the program; the company hopes for 100,000 subscriptions by next year.

Panelists responded to questions from the floor, as follows:

- *To what degree is technical support or training required for users?* Mr. van Empel answered that the preference of his organization is that the system be based around a bank account (not a mobile phone "PayPal" type account) as this encourages financial literacy, which is fundamental to teaching users how to control spending. In one pilot project, at the beginning of the new season, the company automatically provided loans that were 3 times the amount of money left over in the accounts at the end of the previous season. Mr. Sinha added that the challenge in India is inclusive growth, which is dependent on increasing the productivity of the agricultural economy. There has been little access to organized financial sectors. In order to reduce the costs of managing many small loans, the bank has encouraged small farmers to form into groups of 15 – 50. NGOs work in building financial literacy and aid in linking groups with banks. Although it is

mandatory to have insurance (against output) in order to secure a loan, farmers are reluctant to subscribe.

- *Is insurance purchased only as a means to access credit?* Mr. Rai responded that in India, government mandate states that all loan-taking farmers need to have insurance; other farmers can opt for insurance. The government is providing a subsidy to attract non-loan farmers to buy insurance, but as there have been few payouts over the last few years, there has been a disincentive to buy.
- *Is there a platform through which banks and telecommunication companies can share lessons learnt in providing financial and banking services? Should this be the bank's or the regulators' responsibility?* Mr. Rai responded that mobile phone services are not meant as replacements for banks. Banks have distribution channels, but these channels are limited; microfinance and mobile technology can play large roles in providing access to banking services. Mr. van Empel added that many countries are looking at mobile phone systems; some want to set up the telecommunication systems but ensure that banks keep control of the cash flow. Mr. Rai noted that in his company's partnership with the telecommunications company, the regulators made it clear that a bank-led model had to be used (accounts reside within the bank).
- *Who owns the meteorological stations and the data in the mobile phone-based insurance systems?* Mr. Wambugu responded that the insurance company could not finance the weather stations because of conflict of interest. The Kenyan meteorological department now owns the weather stations and controls the data; the insurance company relies on the department to access the data.
- *Are there innovative loans designed specifically for women?* Mr. Wambugu responded that although there are no insurance products targeted at women, one of the insurance program's first advocates was a woman. The company is looking at developing a bundled, low-cost insurance product that would cover health products and funeral insurance.

Parallel Panel 1B: Accessing Markets—Food Safety Standards and Exports

Standards and traceability are important determinants of farmers' integration into global supply chains. This panel highlights how PPPs can help link smallholders to increasingly sophisticated markets.

Panelists:

- [Charlotte Hebebrand](#), Chief Executive, International Food and Agricultural Trade Policy Council—Moderator
- [Spencer Henson](#), Professor, University of Guelph
- [Steve Homer](#), Managing Director, SMH Projects
- [Kristian Möller](#), Secretary, GLOBALGAP

Charlotte Hebebrand, Chief Executive, International Food and Agricultural Trade Policy Council and moderator of the panel, introduced four key areas to explore in panel discussion: the rise of standards in emerging markets and its impact on smallholders; the impact of standards on food safety in developing countries; harmonization of standards; and the relationship between the public and private sectors in standards.

Steve Homer, Managing Director, SMH Projects, gave an overview of his involvement in standards over his career. He has spent time with emerging markets, worked on the ground with small farmers, and seen what standards can do. He is now involved in benchmarking food standards for global food safety.

Spencer Henson, Professor, University of Guelph, described his research on linking smallholders to markets through food standards. He recounted the reaction of many individuals in the development community to his research that showed that exporters with GLOBALGAP certification have seen benefits in export performance. Their reaction (which included comments about the consolidation of firms, the benefits accruing to profit-making entities, and the negative impact on smallholders) really reflects the skepticism of the private sector held by international development practitioners.

Kristian Möller, Secretary, GLOBALGAP, briefly introduced GLOBALGAP and spoke about his first involvement with standards while working with Ciba-Geigy. The company saw that misuse of its products (pesticides) by retailers was causing a reaction from consumers, so it decided to bring retailers together to drive good agricultural practice. The first standard drafted as a result looked at food safety, occupational health and safety, and farm protocol.

Panelists discussed the rise in private standards. Mr. Henson suggested that public regulation and private standards are both increasingly tightly interlinked parts of an overall system of governance. The rise in private standards has been due to factors such as consumer pressure (which has grown after problems with food safety), brand capital (private labels), and globalization of supply chains. These factors have led to a general thrust towards putting emphasis on proactivity and responsibility within the private sector for supplying safe food. Mr. Möller noted that global standards can be helpful to farmers as they translate into good agricultural practice. National governments have become involved in standards as well, by participating in national and technical working groups.

Panel discussion turned to how private standards impact smallholders. Mr. Henson emphasized the need to distinguish between subsistence farmers and farmers who grow export crops. He observed that development NGOs are herding farmers through one standard, instead of first identifying the market for the product and then finding a standard to fit the market. He noted that food safety standards are pre-competitive, but sustainability standards are very competitive. A niche standard on top may be needed to provide prominence. Mr. Henson further pointed out that 3,000 farms in Kenya certified to Tesco standard (a European standard), so small scale farmers are capable of meeting standards. Exporters will pick up the cost of certification of their suppliers as they see certification as a market access point further up the chain.

Mr. Möller spoke about benchmarking and how the process is useful in comparing different standards in different countries. National governments can bring some support tools for certification processes and help bring down certification costs.

Mr. Henson said that there is a role for government and donors in standards, and that private sector firms are a critical resource. The relationship between fresh produce exporters and smallholders is evolving. Exporters will try to mitigate risk in procurement. Where relationships are not mutually beneficial, smallholders may exit, and in some cases there may be lots of turnover. The smallholders that are producing for exporters are not the poorest of the poor, so standards are not a mechanism for helping the poorest of poor (unless it is through their employment on smallholder farms).

Mr. Henson noted that sustainability standards are driven by market differentiation, while standards for food safety are harmonized and working well. He drew attention to horizontal and vertical expansion of standards. Vertical expansion in food safety standards, for example, means looking for more control in food safety. Horizontal expansion, however, means expanding the interests of the standards to include health and safety on the farm, social welfare, and child labour, etc. Horizontal expansion of sustainability standards is a competitive area, as sustainability is interpreted differently depending on the constituency group. Because food safety standards give almost 100 percent traceability within the value chain, other concerns can be wrapped around the standards and the standards can become a conduit for a plethora of other criteria.

Mr. Möller noted that in Europe, 80 – 90 percent of produce are certified as GLOBALGAP or by a recognized standard. The US does not have a recognized standard, so existing standards are competing with each other. In terms of sustainability, standards are complex, and a harmonized approach would be useful. New technology may help in developing some kind of system (e.g., online comparisons). Ms. Hebebrand added that it is a challenge just to define sustainability, let alone standards for sustainability.

Discussion was opened to floor participation. The following points and questions were raised:

- *Is it the more advanced smallholder farmers that are adopting standards?* Mr. Henson responded that donors are fascinated by smallholders. If the ultimate interest is to reduce poverty, the poor may also benefit from standards as they get employed to work on larger farms.
- *Do standards understand the developing economy consumer?*
- Sustainability standards need to be based on science, and they need to be harmonized. Sustainability standards have to take into account social sustainability well as environmental sustainability. Mr. Homer noted that standards are being driven by the interests of consumers, retailers, and firms within the supply chain. The interest of the retailer is the most critical. The retailer wants a standard that gives a level of comfort against media exposure. For example, retailers are implementing animal welfare standards because they want to be ahead of regulation; they do not want to be exposed when a problem arises. The interests that are driving standards will determine if they are based on science.

- Mr. Homer described how Namibian cartilage is sold at a higher price than beef filets in the Netherlands, and how Danish retailers are selling Namibian beef as “development beef. “
- *Is there any legal recourse against private standards that may be trade restrictions?* Mr. Möller noted that the OECD has said that it cannot regulate standards. Harmonization of standards will require governments to get on board, public discourse, and transparency. Mr. Henson noted that it is possible that in some circumstances, government use of private standards may fall into the realm of trade restrictions. Ms. Hebebrand cited the case of biofuels in the U.K. (in which the government has picked some private sector standards, and noted that in technical assistance, using government taxpayer funds to meet private sector standards clearly falls in the realm of trade restrictions.

Keynote Presentation by the Parliamentary Secretary to the Canadian Minister of International Cooperation, Lois Brown

Lois Brown, Parliamentary Secretary to the Canadian Minister of International Cooperation, addressed conference participants on behalf of the Honourable Beverley J. Oda, Canada’s Minister of International Cooperation.

Ms. Brown spoke about the urgency of the global food security challenge, drawing attention to the work of the Canadian International Development Agency (CIDA) in this area and government efforts to collaborate with the private sector to make its response more effective. Ms. Brown emphasized how addressing food security means addressing the value chain. She highlighted the three key areas on which CIDA focuses its food security strategy: women, research and innovation, and nutrition, and gave examples of successful CIDA initiatives around the world. She emphasized the need to collaborate with the private sector, noting that challenges in the agriculture sector are complex, and that both the public and private sectors are required to improve the entire value chain. She described CIDA collaboration with the private sector, drawing attention to how Canada is contributing to the Global Agriculture and Food Security Programme’s private sector window to find innovative financing methods for smallholder farmers and small- and medium sized firms in agribusiness.

Ms. Brown concluded by expressing her anticipation that that findings and ideas from this conference will inform CIDA as it moves forward with a new agenda on collaboration between the public and private sectors in agriculture that benefits everyone, from farmers to consumers.

Parallel Panel 2A: ICTs and Mobile Applications—Enabling PPPs in Agriculture

Mobile platforms provide promising services for smallholders', including agronomic and market information, access to finance. This panel discusses the role of PPPs in serving smallholders with information and communications technology (ICT) innovations.

Panelists:

- [Ken Banks](#), Founder, kiwanja.net
- Sara Boettiger, CEO, GATD—Moderator
- [Mark Davies](#), CEO, Esoko
- [Jesse Moore](#), Managing Director, Signal Point Partners

The panel began with remarks by each panelist on their experience in information and communication technology (ICT) and mobile applications.

Jesse Moore, Managing Director, Signal Point Partners, introduced his company which is active in Kenya, and spoke about his past experience with the GSM Association in London.

Mark Davies, CEO, Esoko, described how Esoko is active in 16 countries and in many different types of partnerships. The company has 65 employees based in Accra, Ghana, and is trying to build a platform for information in agriculture. He noted that agriculture can be transformed through the facilitation of the flow of information and that the challenge is to focus (e.g., on opportunities in transport or stock information). He suggested that conference discussion be more critical of PPPs and pointed out that discussion has not touched on the different types of players in the public and private sector that will form partnerships. He said that his experience in partnering with the public sector has been challenging. However, incubating new services for smallholder farmers is difficult and very expensive to do, and cannot be done without public sector involvement. He noted that the real challenge in PPPs lies in the format and the implementation of the partnership.

Ken Banks, Founder, kiwanja.net, advocated that discussion start with a focus on the problem and not on technology. He recounted his experience in working on technology, particularly in mobile technology in Africa over the past 9 years. He noted that there are huge opportunities and challenges for non-profits in Africa. His company focuses on the farm and the end-user (the last mile) for which it tries to build things. His company's approach is simply to provide the platform to non-profits; they take it if they want it. This approach has resulted in uptake in over 20 sectors. He noted the level of ingenuity at the grassroots level when tools are provided. He drew attention to items that have not been discussed so far during the conference: subsistence farming (do all farmers need to be connected?), the need to scale (some initiatives are good at the micro level and do not necessarily have to be scaled up), and what an enabling environment would look like. Kiwanja.net uses a text messaging platform that does not require the Internet. Many initiatives are using this platform; e.g., in Kenya, questions on organic farming radio broadcasts can be sent in by SMS; and in El Salvador, Winrock International has introduced a transaction system using the platform). The company aims to be decentralized, and to keep things small and simple. The company scales horizontally, with many projects doing the same thing. Kiwanja.net does not have experience in PPPs and is not directly involved with farmers. Mr. Banks noted the huge opportunities in getting involved in lower level activities and recommended that technology initiatives push more to meet the needs of smallholder farmers.

Sara Boettiger, CEO, GATD, and moderator of the panel, described the three main areas of work of her organization: advising foundations on PPPs, product development, and demand-driven innovation.

Panel discussion took place on the ways in which ICTs are used in smallholder agriculture. Mr. Moore noted that mobile phone companies make money in three areas: selling information and communication services, building loyalty, and trading transactions (through phones). Mr. Davies said that farmers say they are looking for information on finance, prices, weather, and buyers on their phones. Mobile phones are used for evidence-based negotiation, and trends analysis (farmers hold off to sell later at better prices). All businesses serving smallholder farmers want to use the technology, to send administrative messages, news about events, and to manage the value chain (e.g., checking on attendance). Mr. Banks added that phones are used for transactional services. He noted that there is push and pull in the use of technology: “pull” might be the farmer asking for prices and advice, while “push” would be weather forecasts and radio programs. He drew attention to an exciting aspect of new technologies, in which analysis of technology use can make initiatives more relevant (e.g., analyzing the type of questions on a radio broadcast can provide information on farmers’ concerns) and push and pull mechanisms can be combined (e.g., providing credits for participation).

Discussion turned to lessons learned. Mr. Davies observed that PPPs are necessary because it is expensive to access smallholders. His company’s biggest challenge in PPPs has been the lack of predictability and the lack of understanding of public sector drivers. The public sector also seems to have doubts about trusting the private sector and may have the attitude of not wanting to “help the rich get richer.” Mr. Banks suggested that attention be focused on the value proposition for companies to invest in different models of partnerships. Mr. Moore commented that the private sector has done a great job in building networks in developing countries by itself (not through PPPs). In addition, the mobile phone industry got successful by repeating good practice and business models. Companies are actually cash and talent strapped as they are busy building networks and finding subscribers. The best people are not willing to do mobile agriculture. He noted that a great opportunity exists for the public sector and NGOs to pave the way for new business opportunities so that mobile agriculture initiatives can scale. There are several pools of money that can be accessed for joint ventures for mobile phone start-ups. Mr. Banks added that a lot of interesting innovation happens on the farm that has not yet been noticed.

Discussion was opened to the floor. The following points and questions were raised:

- *What business models are effective in ICT and mobile applications?* Mr. Davies responded that there are inventories of mobile projects but they do not touch on business models. He suggested creating opportunities for discussion of different business models.
- *Why are farmer organizations not participating in conference sessions?* Ms. Boettiger agreed on the need to have farmer representation, and noted that 4 farmer associations had cancelled their participation in this conference. It is difficult to get farmer associations to participate as they are in great demand at food security conferences.

- Interest in mobile applications for agriculture is increasing, and more money will become available for investments. There is commercial interest in selling more content and more airtime. Mr. Banks noted that there is a lot of hype and buzz and excitement about mobile health, mobile agriculture, and mobile learning. Mr. Moore said that in his view, more opportunities lie in the agricultural sector as at the end of day, agriculture is a business, and hence, profit plays a greater role in the sector than, for example, the health sector.
- There is a need for reform of the Rome-based UN agencies.
- *Who owns the mobile phones and are the owners being targeted?* Mr. Moore answered that according to a recent study, ownership of mobile phones in the developing world is 62 percent male and 38 percent female. The gender gap is closing dramatically and will continue. The study also suggested that there is multiple use of mobile phones in the household. Mr. Banks drew attention to the work of the Cherie Blair Foundation in developing content for users. .
- *What challenges have you faced regarding the regulatory environment and how have you overcome them?* Mr. Davies answered that his company has not met any problems with regulation in Ghana.
- *What is the minimum level of functional literacy to get maximum use of ICTs?* Mr. Davies responded that users always have access to literacy (through training or through neighbours, etc.). The challenge is really phone or technical literacy (how to turn phones off, delete messages from full Inboxes, etc.). His company is launching a call centre to address this challenge.
- *Are phones being used for data gathering?* Dr. Boettiger noted that defining and describing the market is key to making a business case. Mr. Moore noted that a number of major donors are lining up behind an initiative to develop an open platform for mobile development intelligence, which will look at key mobile commercial data. Mr. Banks noted that people can be tracked through social media and enticements such as offers of free items. Mr. Davies added that when work started in this area, the focus was on what could be pushed out to the farmer. Now the focus is on what can be pulled in (e.g. has planting been done at a certain time?). Incentives such as air time credit can be used to encourage more responses. Data gathered this way can be harvested.
- *Have you quantified the incremental value of ICTs and mobile technology to the farmer and tailored business to that?* Mr. Davies responded that it is difficult to quantify value. One way to do so is to ask people what they are willing to pay to use the technology. Attention was drawn to different studies, such as a study on the impact of mobile phones on fish prices and waste in India, and another from University of California, Berkley about what householders will substitute to get mobile phones. Mr. Davies noted that companies often aim to create exclusivity of use and are willing to provide packages that offer a “win-win” for all (the service provider, farmer, and mobile operator).
- *How are mobile phones being used to work on transparency and corruption issues?* Panelists cited examples such as mobile payments for the police force in Afghanistan (a Safaricom initiative), mobile checks on quality of products, mobile observation technology for supply chain

management, and mobile gathering of data from the field on stocks and harvests for policy planning. It was observed that supplier reputation is based on feedback, and feedback mechanisms are an obvious way to increase transparency.

Parallel Panel 2B: Intellectual Property Rights (IPR) Management & Biosafety Challenges

Strategic management of Intellectual Property Rights (IPR) is critical to many PPPs' ability to benefit smallholders. Biosafety issues affect organizations' ability to partner, and are a major concern in the structuring of the partnership. This discussion identifies critical issues and explores potential solutions

Panelists:

- [Natalie DiNicola](#), Director, International Partnership Development, Monsanto
- [Rolf Jördens](#), Special Advisor, Global Issues Sector, World Intellectual Property Rights (WIPO)—Moderator
- [Quentin Palfrey](#), Senior Advisor, White House Office of Science & Technology Policy
- [Robert Zeigler](#), Director General, International Rice Research Institute (IRRI), CGIAR

Natalie DiNicola, Director, International Partnership Development, Monsanto, described how Monsanto is focused on providing breeding and biotech tools to farmers to improve their productivity. The company sees Intellectual Property (IP) as crucial to offsetting risk taking for the investor. IP can be licensed, donated, or shared through PPPs. Monsanto is trying to balance IP rights (to enable innovation) with providing broad access. The company has been involved in technology-sharing programs since 1991, mostly in crops that the company does not develop itself, providing expertise in data, and stewardship etc. Regrettably, many products from these programs have not yet made it to the hands of farmers.

Robert Zeigler, Director General, International Rice Research Institute (IRRI), CGIAR, said that IRRI was created to address food security needs in Asia. IRRI works within national research systems to improve the productivity of rice-based systems. Nearly half of the rice in the world can be traced back to the institute. IRRI prioritizes education and research, and holds in trust the world's largest rice genetic resources. All IRRI's IP was available to the public originally, but things have changed.

Quentin Palfrey, Senior Advisor, White House Office of Science & Technology Policy, noted that US President Barack Obama's policy directive on global development includes innovation as one of its 'prongs'. A partnership strategy (with private, NGOs, industry, and other governments) is part of how innovation on global challenges can be inspired. The White House is also involved in a "Patents for Humanity" program, which provides gene bank information online.

Rolf Jördens, Special Advisor, Global Issues Sector, World Intellectual Property Rights (WIPO) and moderator of the panel, said that WIPO is about to start a project in Tanzania that will rely on IP as an enabler for sustainable wheat production (Tanzania is one of the few countries in Africa that has IP protection laws). PPPs fostered by intellectual property rights (IPR) are not entirely new: national research centers (e.g., Japanese and Swiss) have used IPR; and in the Swiss public research process, once

a certain stage of development has been reached, the seed/gene is given over to a private agent to do further trials, develop and market.

Ms. DiNicola noted that Monsanto sees IPR as a means to provide farmers with further access to technology. A company's willingness to invest in different locations depends on the available IP protection; concerns include counterfeiting varieties and biotech stewardship control. In PPPs, the resulting sharing of technology provides opportunities to innovate and distribute. Monsanto shares products that they commercialize as well as those that they do not. For instance, Monsanto donated IP (germplasm, transgenes from Bought tolerance) to a drought tolerant maize project funded by the Gates Foundation. The resulting variety will be made available to all African seed companies, which would then be able to (ideally) sell them without having to charge a royalty. In this way, benefits will accrue not just to the farmer but to the whole seed sector. This project is starting to wrestle with IP issues as some companies would like to have exclusive rights to the seeds.

Mr. Zeigler described how the CGIAR system has gone through a process to look at how IP and genetic resources are handled. Many institutions hold germplasm in trust but do not own it, and so cannot give it away. During the Green Revolution, technology did not reach poor farmers as there was little incentive for companies to make the investments necessary to move the technology into smaller markets. This resulted essentially in a tax on the poorest farmers who could not access the improved varieties. Over the last 5 years, IRRI has developed a new technology and applied it to a drought tolerant rice variety. Private sector involvement resulted in its wide distribution, which was enabled by a change in India's seed varietal approval policy. The change to having protected intellectual assets has opened doors to adoption.

Mr. Zeigler noted that millions have been spent developing traits (disease, insect resistance) and these varieties are made freely available. These are taken up subsequently by the private sector, which adds value to materials and charges a premium. However, the public sector is not able to benefit from the value-added (recapture) and feed the profits back into research. He added that rights-holders determine how the rights are used. It is not always necessary to charge royalties; they can be given away to partners or small producers. IP is not always about blocking access.

Mr. Palfrey noted that the US favours IP protection. The White House believes in providing innovators with a period of market exclusivity. PPPs create opportunities to figure out how to manage the possibility of monopolies (i.e. social deadweight costs). The challenge is in ensuring that the incentive is as high as possible, while social deadweight loss is as low as possible. With strong IP rights, consumers get what they think they are getting (barring counterfeits) and local innovators are provided with tangible incentives. He described two recent projects: a pilot program, Patents for Humanity, which looks at how to use the IP system to incentivize use of IP to advance global development goals; and a green global project to bring information together into one space to share lessons learned (this is a new information and germplasm management system, an internet resource to incentivize development).

Discussion was opened to the floor. The following points and questions were raised.

- *IP is not a panacea for everything; investment recovery is only possible if there is a market. What about crops for which no market exists as yet?* Mr. Zeigler spoke about cassava, for which there is now an emerging market. The private sector's role is to determine where there might be a market while the public sector's role should be to protect resources from the outset. Ms. DiNicola added that if the private sector has developed a technology that can be used for another crop, the technology should be shared. Monsanto recognizes that its PPP partners may have a use for technology that Monsanto is not interested in pursuing. Having ensured the careful selection of its partners, Monsanto is pleased to share its technology.
- *Biosafety issues are more relevant to GMO crops than for classically bred crops. What are problems with biosafety regulations, and how can they be overcome?* Ms. DiNicola responded that Monsanto supports science-based regulatory structures and sees the consolidation in food industry as a result of the onerous regulation processes. A humanitarian partnership needs regulatory approvals to do field trials. One challenge is that the regulatory framework does not have to prove harm, and that it carries with it criminal implications. Even humanitarian projects are limited by these regulations. Mr. Zeigler added that ASEAN is looking at creating a biosafety and regulatory framework so that once an ASEAN country has established that a product has achieved the threshold of safety, other countries will accept the product as such. Mr. Jördens noted that food security solutions may require the harmonization of biosafety procedures and regulation. Developing countries need to enable IPRs and create a framework to encourage competition in the industry (but not cannibalize the local research organizations).
- *Who will own the final product in development projects that have partnerships involving farmers from beginning to end?* Mr. Jördens answered that a farmer who develops a new variety (one that is distinct from existing varieties) is entitled to breeder's rights for that variety.
- *Can innovations generated in developing countries where IP protection does not exist be registered internationally or somewhere else?* Mr. Jördens responded that in countries where there is little IP protection, the local developer of a unique variety runs the risk of this variety being picked up and registered by someone else.
- *In terms of genetic crops, where does liability end if indeed it does? When a product is donated to a humanitarian cause and goes through biosafety regulations and then into commercial application, can liability be traced back to the developer?* Ms. DiNicola responded that if a government is involved in the development of a product, it might assume liability; however, this may still not protect the developer, especially in terms of its reputation. Although Monsanto has been willing to take this risk, it is very careful now about whom it partners with. Mr. Zeigler added that the issues of liability and confidentiality always come up in negotiations. The public sector does not have a culture of confidentiality and needs to develop one.

Discussion of Conference Outcomes and Mapping the Way Forwards

Marco Ferroni, Executive Director, Syngenta Foundation for Sustainable Agriculture, reviewed conference discussions over the past two days and proposed the following preliminary ideas on how to move forward to make the fullest use of PPPs:

- Further deepen current understanding of PPPs through a continuously updated searchable database (with typologies);
- Document different forms of “catalytic nudge,” leadership, “carrots and sticks,” and process models;
- Document interesting practice (e.g., how to build the supply chain with shared value for farmers, how to develop mutual respect, essential aspects to partnering, communication strategies);
- Continue networking and knowledge management efforts to keep up the community formed during the conference;
- Build a global network of experts that can be called on by people crafting PPPs in different sectors to give support and provide advice on matters such as due diligence processes, revenue planning, IP, resource organization, etc.;
- Develop a research agenda which can contribute to furthering the cause of PPPs.

Sara Boettiger, CEO, GATD, summarized the ideas emerging from the conference that can be developed immediately, as follows:

- Create an incubator for ideas;
- Communicate with donors and companies who may engage in developing some of those ideas;
- Convene more discussions and contribute to discussions that are going on;
- Establish a communications hub;
- Work with IDRC on developing a research agenda

She noted that GATD, with Syngenta support, will be working on these ideas.

Merle Faminow, Programme Manager, IDRC, said that IDRC is committed to finishing what it started to do in working with the Syngenta Foundation over the past year. It will be posting two papers on PPPs (one in genomics and the other in value chains) on its website and inviting comments on these papers. IDRC will work closely with GATD and Syngenta to follow up with the ideas for a research agenda. Lastly, IDRC will be looking at funding the preparation of a set of business cases.

Discussion was opened to floor participation. Many participants commented on the richness and density of the conference discussion and thanked organizers for their efforts. The following points and questions were raised:

- What is the consensus on the big audacious goal in moving forward? Is the goal food security? Or is it poverty?
- A big push from the public sector would be helpful around the harmonization of regulation around seed varieties in developing countries.
- There is a need to work on understanding the farmer customer better and understanding how farmers are segmented.
- A landscape analysis (what is happening, who’s doing what) would be useful.

- There should be discussion about whether the private sector is allowed to make money, as this issue has implications for trust.
- Attention should be paid to understanding who the different partners are at each level of the value chain.
- Clear problem definition would help companies get involved. Many companies say they would like to get engaged but do not know how they can be useful.
- To increase chances of success, focus on a big idea to galvanize interest. Otherwise, resources will be diffused into different agenda that do not line up. Now that food security has gained attention, there is an opportunity to raise the issue at a high level platform (for example, the G8). In addition, no achievements are possible without new vehicles or new platforms. What changes in architecture are needed in the agriculture sector?
- Mutual dependency (between multinational buyers/exporters and small farmers) is a great way of building trust. It is also an entry point for engaging big multinationals in PPPs.
- In setting up a typology, it would be useful to tease apart financial investments from development investments.
- PPPs in agriculture in developing countries are responding to the failure of government or of market mechanisms. In creating PPPs, attention should be given to defining clear responsibilities for government so that the final results of interventions will be effective.
- There is a need to grow the number of people who can work with and manage PPPs.

Jean Lebel, Director, Agriculture and Environment, IDRC, brought the conference to a close by thanking participants and all involved in its organization and delivery. He asked participants to spread what they had heard during this conference, to contribute further in moving ahead with PPPs, and to remember that all efforts are aimed at benefiting the smallholder farmer.