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**Going for Impact: A Proposal to Accelerate the Dissemination of
Seed Technology to Smallholder Farmers
(Working Document - For Discussion Only)**

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Strategic Issues*

Submitted by:
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Going for Impact: A Proposal to Accelerate the Dissemination of Seed Technology to Smallholder Farmers

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Objective

In cooperation with partners, the Syngenta Foundation will facilitate the dissemination of improved seed and other agricultural technologies by bridging the gap between researchers and smallholder farmers. It will do so by engaging seed companies and farmer groups that can rapidly market and adopt new technologies. The proposed effort is additional to current investments by the Foundation to develop and disseminate scalable solutions for small farmers. It is designed to be expandable in cooperation with others and is expected, ultimately, to bring about sustainable improvements to smallholder yields, food security and the resilience of their production.

Background

The world's smallholder farmers lack access to the technologies, inputs and services they need to improve their productivity and the sustainability of their farming methods. As a result, their livelihoods suffer, as does the overall supply of food and, often, the environmental footprint of farming. The CGIAR and its partners have at the same time been continually developing knowledge and innovative technologies that could respond to farmers' needs, but have been slow to reach them. The main reasons are that the private sector will not market without special support where infrastructure, conducive governance and other prerequisites are missing; the public sector cannot distribute inputs efficiently on a large scale; and farmers will often not embrace innovations without assistance. There are gaps between those who develop, distribute and use helpful technologies, inputs and tools.

This proposal is designed to help close those gaps. It takes the view that delivery has much to do with connectivity among partners who bring different, but complementary roles and skills to bear on a task. The proposal, accordingly, is about brokering and supporting partnerships that have the ability to deliver.

Two-Pronged Concept

We propose to engage in two activities:

- 1) A Program to provide technical and financial support to eligible seed companies and farmer networks in selected countries in sub-Saharan Africa. Through disbursements and

results-based financial incentives, this program is intended to encourage the trialing, marketing and adoption of promising new seeds and ancillary technologies.

2) A Forum, both personal and virtual, to convene members of the seed and input industry, farmer networks, technology developers, donors, investors, and other market actors. The Forum's purpose is mutual learning and spawning of new initiatives. Participants will exchange information on the needs of smallholders, discuss good practice, successes and failures of technology and input delivery, and the challenges of linking small farmers to markets. They will generate strategies and new approaches for product development and dissemination.

Activity 1: Program for Private Seed Sector Development

The private sector is the only scalable mechanism for delivering seed to smallholder farmers. However, seed companies often require special nurturing and substantial support. Most are small, and business consolidation and expansion involve significant risk. Smallholders' reluctance to adopt new technologies compounds these obstacles. These farmers need to learn about the benefits and proper use of improved seeds, and be able and motivated to adopt them. The program intends therefore to engage both seed companies and farmers to facilitate the distribution and use of improved seed and other inputs coupled with agronomic advice (agricultural extension). The program will operate under the umbrella of the Syngenta Foundation's Seed Systems Development Thrust¹ and should incentivize:

- Multiplication and market delivery of promising hybrid, clonal and OPV seed,
- Trial adoption of seed by smallholder farmers and other value chain actors, and
- Dissemination of seed and ancillary inputs through private seed companies and farmer networks.

Subject to Board approval and contract, an initial USD 1 million grant will support Activity 1. Modalities of management, choice of partners, selection of focus countries, business procedures, disbursement, metrics, monitoring and evaluation will be developed and proposed by the end of July 2013. Co-investment by others is a possibility. Partnerships with the One Acre Fund² as well as potentially other farmer aggregators, and with seed industries and their relevant trade bodies are envisaged. Individual grants to seed companies and farmer groups under the program could range from small sums as needed and justified to a maximum of some USD 150,000 per transaction. Participating CGIAR centers would open up their pipeline in ways that make possible the delivery of germplasm through private channels. Farmers purchasing seed would have the option to be insured against drought and other risks under Syngenta Foundation's *Kilimo Salama* brand of agricultural index insurance solutions in sub-Saharan Africa.³ Insurance against weather and other risks is necessary to give farmers the confidence to invest in improved seed, fertilizer and other purchased products and technologies. Affordable insurance is challenging to design and take to market. *Kilimo Salama* has been able to develop

¹ www.syngentafoundation.org/___temp/Seeds_program_status_December_2012.pdf

² www.oneacrefund.org

³ www.syngentafoundation.org/index.cfm?pageID=562

workable approaches and has insured 100,000 farmers in Kenya and Rwanda during the first three months of 2013.

Target Organizations

a) Seed Companies

Seed companies serve hundreds of thousands of farmers in sub-Saharan Africa who already place substantial trust in their goods and services. To expand the reach of this industry, the program could provide principled grants to eligible companies to take on the risks of multiplying and marketing promising new varieties developed by the CGIAR, national programs and others. After facilitating initial bulking, and to share the risks of moving into untested markets during the start-up phase, the program could offer guaranteed markets (or advanced market commitments) up to certain levels, as well as potentially tapered subsidies for seed production and marketing of 'orphan' crops not widely available through commercial seed channels. The nature of the incentive and risk sharing to be offered would in each specific case be informed by an analysis of the particular market failure at work. The need for regulatory and policy action to rectify specific instances of government failure would also be assessed. Recommendations would be developed and shared with relevant institutions.

Partner seed companies would be selected following criteria that would include financial health, seed multiplication (as well as potentially breeding) expertise and capability, and a minimal track record of introducing new varieties into smallholder settings via successful marketing and extension services.

b) Farmer Networks

Organized networks – for example in the form of co-operatives or formal or informal producer organizations – allow farmers to collaborate in purchasing inputs, as well as growing and selling agricultural products. Through functioning networks, farmers share risks and rewards. For our program, the networks are important as aggregators of demand. They could also play a role in coordinated bulking of seed under contract for seed companies.

Accessing these networks directly or (more likely) through intermediary organizations will be central to the program's success. The networks need to be mentored and supported by services (such as agricultural extension, crop insurance and often credit) to enable their farmers to productively absorb improved seed. The program could provide grants to networks for this purpose and could support them in tasks including the establishment of, and learning from, trials and demonstration plots. Grant-making to networks or eligible intermediary organizations would be performance-based, for example linked to the number of farmers reached, or adoption rates following initial demonstrations.

Networks and aggregators supported under the program would be selected following criteria that would include size and scale (cropped area and numbers of farmers that can be reached), current use of seed and other technologies, track record as business organizations, experience running demonstrations and fostering the adoption of improved seed, and management capability and governance.

Beneficiary seed companies, farmer networks and aggregators/intermediary organizations will be responsible for regular data collection and reporting of precise metrics according to templates currently under preparation. Grantees will be required to share planning and budgeting documents as well as marketing materials in the case of seed companies. The systematic tracking of performance from baselines should to be a defining feature of the program.

Activity 2: The Forum – AgPartnerXChange

The exchange of information between those who develop new technologies and improved seed and those who adopt them is limited. As such, there is often a mismatch between what is developed, what is available at market, and what is needed. AgPartnerXChange (APXC) is designed to meet this challenge. The Syngenta Foundation guided and sponsored the establishment of APXC in 2012 and will continue to cover the cost of operation and further APXC expansion from existing resources.

The Forum takes two main forms: an annual meeting and an online platform. The platform already exists.⁴ The first meeting under the program proposed here could take place in mid-2014. The meeting would occur in connection with a higher-level larger conference on agriculture and the challenges and opportunities of technology dissemination. The Forum would convene representatives from the CGIAR, private seed industry, smallholder farmer networks, as well as donors, investors and other appropriate stakeholders.

By convening these parties, the Forum's objective would be to improve communication between all actors in the seed market. For instance, representatives of smallholder farmers could articulate the technology needs and constraints of their constituents. Similarly, researchers and seed companies could report on new or imminent innovations, as well as their capabilities and market expectations.

The meeting would convene over 1-1 ½ days and focus on the needs of smallholder farmers in specific settings and geographies; ongoing technology developments at CGIAR, including the pipeline of new products and mechanisms for making these available; success of and lessons learned under the program proposed here; the role and capacity of private seed companies in linking the sources of new seed technologies with users; and the role and capacity of farmer networks, aggregators and intermediary organizations in progressing improved seed to smallholder farmers.

The online platform APXC is designed to change the enabling environment for public-private partnerships in agriculture. Its goal is to catalyze more and better PPPs that add value for smallholders. The website shares knowledge and provides tools that help partners engage; it also includes a global database of more than 200 PPPs in smallholder agriculture.

Despite the large and growing demand for PPPs, the common problems and constraints are often less well understood. So far, there has been little sharing of practical knowledge, or analysis rooted in practice. APXC enables a view of what is lacking in agricultural PPPs, and

⁴ www.apxc.org

helps target investment in new demand-driven tools. The areas covered include impact measurement, intellectual property negotiations, as well as funding guidance for foundations and governments.

Both the meeting and the online platform would draw on insights from the platform and, specifically, working groups composed of representatives of all categories of stakeholders relevant to our program. These working groups would deliberate on pre-determined subjects and generate new ideas and action plans for the program to undertake. These ideas would be disseminated among participants and closely tracked before, during and after implementation.

Conclusion

The CGIAR continues to develop life-saving agricultural technologies, but there is a missing connection to delivery, and impact is difficult to measure. The challenge now is to fully engage with the private sector and focus on the farmer to ensure that CGIAR science can improve the lives of smallholders everywhere. We believe that with the activities outlined above, we can take a big step towards that goal. We also believe that it is the role of CGIAR budgets and funds to support more than research and specifically foster up-scaling through the private sector on a massive scale. We are proposing to make an investment of USD 1 million now to get things started. We hope the CGIAR would sign on by making its pipeline of products available, as mentioned, in ways that make delivery through the private sector possible. We hope to generate data on adoption, input/output relationships, yields, farm incomes, resilience and other aspects that can be linked to improved seed and supporting technologies and services. We expect this to enable us collectively to build the evidence-based case the world currently appears to lack for a paradigm shift from stakeholders working in isolation to connectivity among partners as needed for delivery and impact where it counts.

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