Syngenta Foundation Overview and the Global Seeds2B Program

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Ian Barker - Head of Agricultural Partnerships
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Driving Smallholder Success: Syngenta Foundation Overview

Dr Yuan Zhou - Head of Agricultural Policy and China Program
Overview

Our Mission
To create value for resource-poor producers and consumers in developing countries through innovation in sustainable agriculture and the activation of value chains

• Non-profit Swiss charitable foundation
• Core funding from Syngenta ($17m p.a.)
• Independent organization (independent Board)
• 190 staff worldwide (Asia, Africa focus)
• 35 years’ field experience
• Focus on researching, testing and scaling adoption of useful innovations
• Catalyst & incubator
• Always work in partnerships
• Hands-on involvement & partnership grants, not classical donations
The Ciba and Geigy families began work in Mali in 1981. The initial focus was agriculture, then healthcare.

In 1996, the Novartis Foundation was formed.

In 2001, the Syngenta Foundation for Sustainable Agriculture was established.

SFSA extended its country presence to India (2005), Kenya (2009) and Indonesia (2010), Bangladesh (2011) and Senegal (2012).

From Sept 2017, Dr. Simon Winter is our Director. We have since expanded our footprint to Nigeria and China.
Foundation focus: pre-commercial smallholders

Income from agricultural activities

Number of land holdings

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Foundation</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to markets</td>
<td>Inadequate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Technology uptake</td>
<td>Low</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td>Risk management</td>
<td>No access to risk- hedging tools</td>
<td>Moderate access</td>
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SFSA Strategic Framework

1. Research and Develop Smallholder-friendly Technologies
2. De-risk their adoption
3. Ensure smallholder access, affordability, adoption AT SCALE

- Stream 1: Seed system strengthening
- Stream 2: Agricultural insurance and finance
- Stream 3: Entrepreneurial Agri-Service Delivery
- Policy research and advocacy
Agri-Entrepreneurs (AE): Employing Rural Youth and Increasing Farmer Income in India

- Programme partnership with Kuza, digital technology tools/platform
- AE = Village Level Service Provider for 150 – 200 farmers
- 700 AEs deployed across 6 states in India, co-funded by Syngenta, Tata Trusts, Government, Rabo Foundation and others
- Trust with Farmers, and Business and Financial Services

- Entrepreneur selection and mentoring
- Business and agri-training in Micro Learning Format
- Multi-sided platform and Digital Kits
- Data transparency to the farmer
SFSA China – Overview

- **Office Registration**
  - In 2018, SFSA Beijing Representative Office was successfully registered; the supervisory entity is the Beijing Municipal Bureau of Agriculture

- **Scoping study in 2018** – focusing on 4 poor provinces;
  - Key intervention areas: Water, Soil, Cash crops, Post-harvest & processing, Market linkages, Food Safety and Quality, Rural financing

- **Initiation of Gansu program** to help smallholder farmers in 2018

- **Launch of new projects** in Sichuan and Beijing in 2019

- **Policy research and advocacy** (Ag innovation, food safety regulations)

- **Support partnership with The Nature Conservancy** (soil health)

- **Develop China-Africa technology transfer mechanism / programme**
Gansu Program - Dingxi City Activities

Potato Capacity Building and Technology Transfer
• Research collaboration with Dingxi Academy of Agricultural Sciences (DAAS): 5-day crossing technology training with 2 world top breeders; Aeroponics set-up trainings; on-site PCR training on disease testing; virus-free technology for potato sprout tip stripping.
• Potato Seeds Program: introduce new breeding germplasm to DAAS, and new potato varieties through cooperation with private companies

Vegetables and market linkages
• Introduction of new vegetable varieties for field trials, and provision of technical training; visit to Shouguang Expo
Gansu Program - Gulang County Activities

Vegetables and market linkages
- Introduction of new vegetable varieties for field trials in open field and greenhouses, and technical support
- Incorporating pest mgt training into government training modules for horticulture
- Market linkages to south China buyers

Goji-berry development
- Establishment of a 200mu goji-berry demo plantation, support green food certificate and technical training, drip irrigation
- Goji-berry value chain study and Industry Workshop (2018)
- Goji-berry root rot diseases field trials (with Syngenta)
Sichuan Program – Kiwi fruit

**Goal**
- Improving income for a selected group of local kiwifruit growers by helping them to lift their orchard productivity and fruit quality and gain better market access and linkages.

**Activities:**
- Analyze soil and plant condition
- Establish a pragmatic and useful training program for local kiwifruit growers.
- Identify and form a group of pioneer farmers that are willing to try and adopt new things, and establish a demonstrational orchard
- Create a format and system to track and record orchard performance and farmers’ income
- Create a blueprint of promising value chain (e.g. mini-MAP) for the local kiwifruit industry and test the feasibility
Global Seeds2B Program

Dr Ian Barker - Head of Agricultural Partnerships
Currently, farmers lack access to both quality seeds and modern varieties. Farmers still using poor quality seeds of the same varieties used by their grandparents. SSA seed sector $400m (potential $1.6bn, McKinsey).

Source: Global Seed Market Database, 2015
Kickstarting seeds markets to close the yield gap

We work in areas of market or institutional failure, responding to requests for assistance & encouraging the private sector to invest (more crops, more marginal markets)

No need for SFSA: strong private interest

Current SFSA investments: pre-commercial market segment, several years away from private interest

Minimal private interest (no current involvement by SFSA): as seed sectors develop, many crops expected to become more commercial
Our menu of services are scalable, in-demand and are generating results for seed companies.

**Innovate:** demand-led, internal or external IP
- SFSA R&D
- Technology scouting

**De-risk:** demonstrate viability in SHF sector
- Trials (including market acceptance)*
- Marketing consent*

**License:** exclusive/non-exclusive, royalty-bearing
- Licensing (royalties returned to NARS or private breeders)

**Scale-up:** confident, sustainable business serving farmers
- Technical support*
- Additional capital
- Market links
- M&E

* = charging
We intend to report our project outcomes externally, whilst tracking key internal key performance indicators: project dashboard

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Entries in Seeds2B Variety Catalogue</td>
<td>20</td>
</tr>
<tr>
<td>Licensing deals with 3 companies</td>
<td>14</td>
</tr>
<tr>
<td>National registrations</td>
<td>17</td>
</tr>
<tr>
<td>Regional registrations</td>
<td>30</td>
</tr>
<tr>
<td>Value of Seeds2B introduced cumulative seed sales</td>
<td>$6,916,645</td>
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<tr>
<td>Royalties to national public breeding expected in 2019</td>
<td>$25,000</td>
</tr>
<tr>
<td>Farmers reached (annual)*</td>
<td>265,176</td>
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<tr>
<td>Gross profit for farmers (cumulative)*</td>
<td>$22,684,587</td>
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* Estimate based on defined assumptions

Ultimately our partners’ success is ours too!
Seeds2B Africa “Connecting seed companies to local markets


- Chargeable comparative trials, registration and licensing service (new for-profit social enterprise registered in Kenya)
- Representing more than 40 private and public breeders to identify and promote new adapted varieties of 12 crops
- Brokering B2B partnerships between seed companies and local distributors
Potato case study – The Kisima story

- 200 ha per year seed production.
- 2000Mt seed cold-storage (Chinese)
- Introduced new varieties for processing (potato chips)
- Kisima Farm pays royalties to Kenyan National Program (KALRO) and one private company
- Host field days for capacity building through Kisima Foundation & input suppliers.
Seeds2B – Aeroponics system Lembang, Indonesia
Seeds2B – beans in East Africa

Target: to reach 50,000 smallholders across Kenya, Rwanda and Burundi
Seeds2B Build – AAA maize in India

Target Area
Total OP area = 1.7mio ha across 3 states

5 promising low cost triple cross hybrids selected for PLC 6.1 trials with partner Indian seed companies in 2015
Seed policy harmonization - lowering cost of business

Our Toolkit:

- At the national level, we study how seed systems work and identify good practices (Country Case Studies) and advocate for wider adoption.

- At the regional level, we address the issue of fragmentation by working on regional harmonization with four RECs.

- Test cases with companies to stress-test the system and identify implementation issues as system develops.

ECOWAS (15), COMESA (19), EAC (5), SADC (15)
The latter three have joined the Tripartite Free Trade Area.
Thank you for your attention.