

AGRIBUSINESS AFRICA:

The 2SCALE Project newsletter



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MULTIPLE CROPS, MULTIPLE BENEFITS

Fifty producer groups, four crops, nearly \$ 700,000 in private investment... the Gulu Agricultural Development Company (GADC) in Uganda reports that business is booming.

2SCALE works with GADC on sesame, sunflower, cotton and chilies, aiming to reach 25,000 farmers by end-2015. A formal agreement was signed in July, but joint field activities began even earlier. Halfway through the first season, the results from this partnership have far exceeded expectations.

- ▶ Fifty producer groups have been formed. Every group is now officially registered, and has elected a management team and opened a bank account.
- ▶ Fifty field officers have been recruited and trained, and have trained 678 'lead' farmers on planting techniques, pest management and other areas. In turn, the lead farmers will train over 5,000 farmers in the next few months.
- ▶ Lead farmers have established 222 demonstration plots of cotton, chili and sunflower. Field days at these plots have attracted over 5,000 visitors.

2SCALE GOES TO HARVARD

AACE Foods, a key 2SCALE partner in Nigeria, has been featured in the alumni bulletin of Harvard Business School. The company, founded by Ndidi and Mezuo Nwuneli, buys and processes fresh ginger, pepper and soybeans from 2SCALE agribusiness clusters, and processes it for sale to supermarkets and restaurants. Local sourcing has enabled AACE Foods to reduce purchase costs by 30 percent, and pass on these savings to consumers – while ensuring that farmers receive fair prices.

The company is also working with 2SCALE to introduce low-cost processing technologies and

to link farm cooperatives with banks. AACE has purchased over 42 tons of chili pepper and ginger from 2SCALE clusters. It has more than 2,200 active suppliers (half of them women) who have received training and support through 2SCALE.

As Mezuo explains, "Nigeria could be transformed with an effective system that supports smallholder farmers and provides growth capital to agri-entrepreneurs." That is the 'social face' of entrepreneurship, where profits and equity go hand in hand. ■

Profitable, equitable business – Ndidi and Mezuo Nwuneli, founders of AACE Foods.



Courtesy Getty Images

2SCALE's role is to assist in training and technology transfer for farmer groups, and provide technical advice to GADC on institutional and marketing issues. GADC's next target is organic certification. The company already sells organic produce to European markets but

in limited quantities. Farmer registration for organic certification and contracting began in August and will be completed in October. The certification process will take several months. But once complete, it will significantly increase profits for both GADC and its farmers. ■



“2SCALE’s agribusiness approach has made a huge difference. We are planning better, we are calculating our production costs more accurately. We have begun proper grading for the first time, so we are getting better prices.”

*— Akeem Salami, maize farmer,
Oyo cluster*

MAIZE CLUSTERS IN NIGERIA

Two new maize clusters in southwest Nigeria are now operating at full throttle. The Oyo and Ogbomoso clusters together include 750 farmers cultivating 1,400 hectares of maize. Three new partners have brought in new ideas and new technologies. The International Institute for Tropical Agriculture offers technologies for aflatoxin control. OneLife Initiative, a local NGO, provides training and business support services. The Caretaker Microfinance Bank offers credit and financial advice.

- ▶ Farmers in both clusters are now buying agro-chemicals, fertilizers and seeds collectively, at lower prices.
- ▶ A number of farmers have submitted business plans to financial institutions and are likely to receive loans.
- ▶ A demonstration farm has been established to promote new technologies such as high-yielding varieties, aflatoxin control, soil fertility management and mechanized planting and weeding.
- ▶ The clusters have been linked to a buyer, and will deliver 30 tons of maize later this year. If this pilot works well, volumes will more than double next season.

Training sessions were designed to address farmer priorities, as identified during community meetings. Training focused on several areas: agronomy practices, gaps in the maize value chain (and how to bridge them), and correct agro-input use (e.g. how to guard against counterfeit chemicals).

Lessons learned: By choosing the right technology, linking with the right partners and ensuring full community participation, a platform has been laid for the next stage, which is contracting with large-scale buyers. We’ve also learned lessons along the way, which will guide future efforts.

The inclusive approach helped ensure that project partners understand the local production system, and that farmers understand what 2SCALE does and does not

offer. Farmers said their two biggest problems were the risks involved in agri-input purchase (expensive, quality and efficacy not guaranteed) and the unavailability of credit. Both issues are being addressed.

Many farmers use fertilizers, but very few have a good understanding of crop nutrition and the correct timing and method of fertilizer application. Training programs were designed (in some cases, redesigned) accordingly. Farmers identified the key factors that determine choice of agronomic practice, and those that influence profitability – especially for dry-season maize, which is a major income earner for most families. With this knowledge, socio-economic aspects will be strengthened in next season’s work plans. ■

Good Fungi vs. Bad Fungi

2SCALE is helping to scale out a potentially game-changing innovation – Aflasafe, a low-cost, highly effective biological weapon to fight aflatoxin contamination. Aflasafe was developed by the International Institute of Tropical Agriculture and organizations from Germany, Nigeria and the USA.

Aflatoxin is a poison produced by a fungus known as *Aspergillus flavus*. It poses serious health risks to people and livestock. Aflasafe contains a mixture of four specially selected strains of *Aspergillus*. These strains

are harmless. They ‘invade’ the field, spread, colonize the available food sources, and thus eliminate or greatly reduce infection by harmful strains of the fungus. Aflasafe must, of course, be used in conjunction with other control methods such as proper land preparation, timely harvesting and proper storage and transportation.

Field trials of Aflasafe are in progress at several locations in Oyo and Kaduna states, with the first results expected in the next few months. ■

RHIZOBIUM BOOSTS SOYBEAN YIELDS

Yields of legume crops can be substantially increased by ‘inoculating’ plants with *Rhizobium* bacteria – cheap, effective and environmentally friendly. *Rhizobium* encourages the growth of specialized root nodules that enable the plant to fix nitrogen, in effect making its own fertilizer.

In 2013, 2SCALE and its partners launched a Rhizobium-promotion program in four countries: Ethiopia, Ghana, Nigeria and Uganda. The program, combining field trials, demonstrations and farmer training, has had excellent results. Consider the Salaga cluster in northern Ghana, where 2SCALE demonstrations have raised interest not only within the cluster but even in neighboring communities. Per hectare, inoculant costs \$15 and increases yield by 150–300 kg, giving net gains of \$100–250 per hectare depending on how well the crop is managed.

Key partners are the *Université d’Abomey Calavi* in Benin, which supplies inoculants; SEND, a Ghanaian NGO that facilitates farmers’ access to credit; and retailers who ensure that inoculant

is available locally, in time and at affordable prices. Farmers in Salaga have bought 130 kg of inoculants this season, sufficient for 385 hectares of soybeans. One 2SCALE group pooled money to buy 78 kg – the largest-ever purchase by a farm cooperative in Ghana. ■



Inoculant is mixed with seed before planting.

SCALING-UP SORGHUM

Sorghum was once an ‘orphan crop’ in Kenya, grown mostly by poor families for home consumption. Today, sorghum farmers in three counties (Meru, Tharaka-Nithi and Kitui) have gone commercial, with help from 2SCALE and Shalem Investments, a Kenyan commodities trading firm.

Shalem buys sorghum on behalf of East African Breweries, as raw material for their popular Senator beer. It works with over 4,000 smallholder farmers, offering premium prices to encourage quality and consistency of volumes. The company has bought more than 8,000 tons in the past three years.

East African Breweries purchases most of its grain from agents, who collect the harvest from thousands of small farms. Our aim is to build on this network of agents to deliver agro-inputs, improve aggregation efficiency and accelerate payments to farmers.

Another innovation is the Farmer Field School (FFS), in which a group of farmers jointly cultivates a demonstration plot using best-



practice, learning as they do. Every FFS will have a facilitator to guide farmers through the season.

Forty FFS sites have been identified, each with a quarter-acre demo plot. Recruitment of facilitators is ongoing; 10 facilitators have been trained in soil sampling and fertility management.

Two other partners, Capitol SACCO and Equity Bank, will offer farm loans. This year, following a successful pilot last season, the loan program aims to reach more than 1,200 farmers. ■

SESAME IN MALI: READY FOR TAKEOFF

Can 2SCALE support help a private company grow? Ask PROSEMA, a private firm in Mali that buys sesame from smallholder farmers, processes it into premium-grade product, and exports to China and Europe. In eight years, PROSEMA has grown from fledgling producer to market leader, buying from a network of 13,000 smallholder farmers across Mali. The company’s processing plant – the most modern in West Africa – can clean, hull and grade six tons of sesame per hour.

PROSEMA’s partners include not only 2SCALE but also the Netherlands government, the Common Fund for Commodities, the Royal Tropical Institute (KIT) in Amsterdam, the Syngenta Foundation and the Netherlands-funded DEBPEA project. Together, we’ve helped introduce innovations such as a low-cost seed drill that is four times as fast as traditional manual sowing; and *Béné Yiriwali Bulon*, a stakeholder platform that links producer unions with traders, transporters and banks.

This season, PROSEMA introduced Mali’s first traceability scheme for sesame. Once it’s fully operational, buyers from Europe or Asia will be able to pinpoint the origin of every bag of sesame back to the producer and the field where it was grown. 2SCALE is also helping the company explore new markets. Soumaila Coulibaly, Director of PROSEMA, explains: “China has millions of new middle-class consumers for whom sesame products are no longer a luxury, but part of the daily diet. This is a seismic shift in the industry.”

With the right partnerships in place and a billion customers waiting, the sesame industry in Mali is ready for takeoff. ■



MORE CASSAVA FROM MOZAMBIQUE

2SCALE partnerships continue to create market opportunities for smallholder cassava farmers in Mozambique. Experts from cassava processor DADTCO, beer manufacturer SABMiller and 2SCALE visited Inhambane and Nampula provinces in July, meeting with farmers, traders, suppliers of planting material and other market players. The aim was to expand production, earlier concentrated in Nampula Province in northern Mozambique, to Inhambane Province in the south.

Their conclusion: cassava deliveries have grown substantially in the past year. With higher-yielding varieties (already developed, tested and available) and more extension support, volumes could increase even more. DADTCO's processing facility in Inhambane currently operates at 90 percent capacity, and will reach full capacity later this year. SABMiller is considering large-scale purchases of cassava cake for starch production; perhaps even establishing a processing factory.

Two new partners have come on board: the government's ProSul development project and



the SNV-Malhalhe consortium. Discussions and field visits in July and August helped identify each partners' roles, and synergies with other IFDC projects in Mozambique. Four improved varieties are available, which can yield at least 16 tons per hectare, compared to 3-4 tons from local varieties. The new varieties were developed by 2SCALE partner IIAM, the national research center. Plans are being finalized for multiplication and dissemination

of these varieties in six districts in Gaza and Inhambane provinces, using a combination of direct multiplication (at IIAM research stations) and outgrowers.

More synergy comes from a new cassava project launched in September, funded by AGRA and implemented by IFDC. The AGRA project will work closely with 2SCALE on technology dissemination and private sector linkages. ■

HIGH-VALUE VEGETABLES

Ethiopia's Central Rift Valley offers great conditions (soil, temperature, rainfall) for growing vegetables, but small-scale producers face production and especially marketing challenges. That could soon change — new agribusiness clusters are confident that with better seeds and training, they can improve volumes and quality, and supply fresh vegetables to Addis Ababa and other markets.

Four vegetable clusters are being set up in the areas of Woyo, Adami Tulu, Meki and Abosa, targeting nearly 7,000 farmers. The key partners are the Bekele Girissa farm cooperative (the business 'champion') and Agriterra, a Dutch non-profit that works with farmer groups and NGOs. Support from 2SCALE and Agriterra will focus initially on three areas: improved seeds,



soil fertility management and agronomy; and progressively expand to market linkages, post-harvest handling and maintenance of irrigation pumps. 2SCALE will also offer support to help cooperatives improve their administration and business management skills.

Representatives of 60 farmer groups attended a Diagnostic & Design workshop in August, where work plans and budgets for the coming season were agreed. Farmers will contribute 42 percent of the work plan budget, providing land, labor and other resources valued at over \$ 110,000. ■