

the 2SCALE project

Highlights 2014

2SCALE consortium

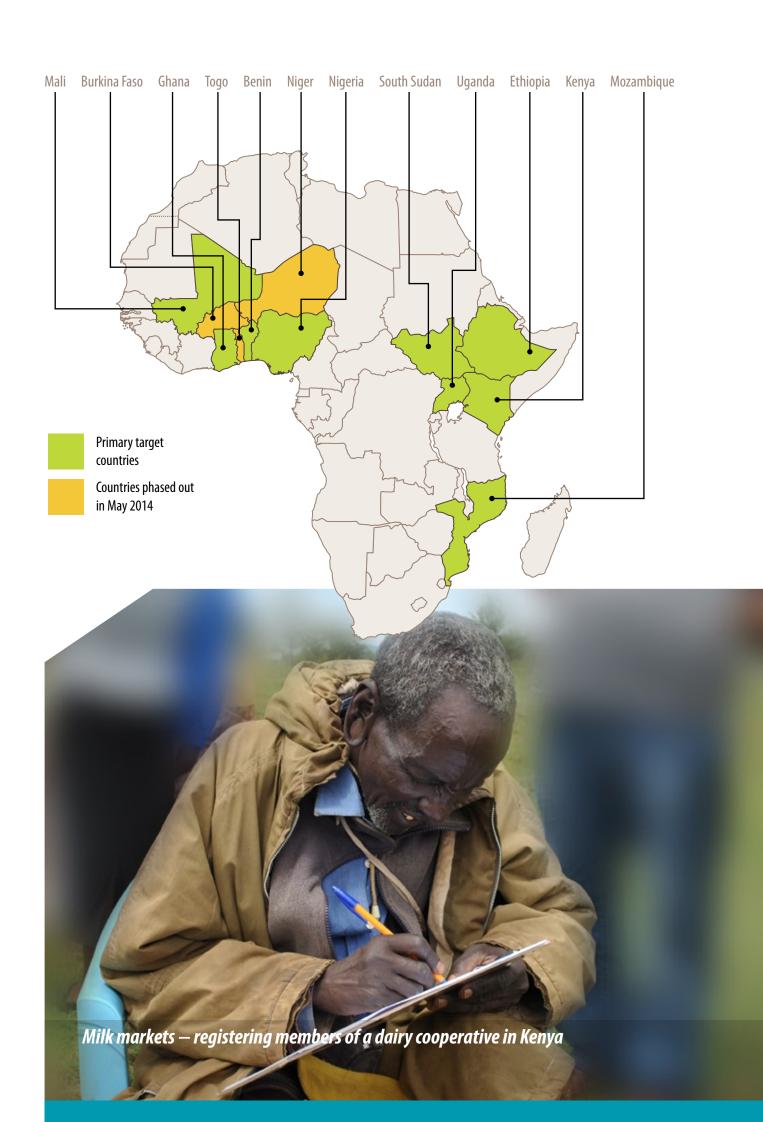






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Building Agribusiness

he 2SCALE project builds partnerships for agribusiness. It connects small-scale farmers and entrepreneurs to each other and to other partners, creating networks that provide market opportunities, technologies, training, business support, credit, insurance... all the elements needed for profitable, sustainable business. Halfway through the five-year project, the impacts are clearly visible.

- More than 1,600 companies are buying produce from, selling agricultural inputs to, or providing services to 2SCALE farmers.
- More than 265,000 smallholder farmers in nine countries have improved crop yields, income and family nutrition. Nearly 30 percent of these farmers are women.
- 24 pilot projects, parallel to the main agribusiness development program, are testing new food products and new marketing tools to reach low-income families.

The Netherlands-funded 2SCALE project was launched in June 2012. By December 2014, 243 agribusiness clusters were operational in nine countries. Another 49 clusters, involving nearly 51,000 farmers in Burkina Faso, Niger and Togo, have 'graduated'. Project operations in the three countries were phased out in May 2014, as planned. These clusters are now financially stable, independent of project support.

WHERE WE WORK

2SCALE is funded by the Directorate General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs. Activities cover 12 countries:

Benin, Burkina Faso, Ethiopia, Ghana, Kenya, Mali, Mozambique, Niger, Nigeria, South Sudan, Togo and Uganda. Three countries (Burkina Faso, Niger, Togo) were included for a limited period, because all three have hosted successful agribusiness projects implemented by 2SCALE partners. As anticipated, lessons learned in the phase-out countries are being put to use in the other nine countries.

OBJECTIVES

- Goal: Improve rural livelihoods and food and nutrition security in Africa.
- Strategic objective: Develop a portfolio of 500 robust and viable agribusiness clusters and value chains in nine target countries in sub-Saharan Africa, supplying food to regional, national and local markets and base-of-the-pyramid consumers.

2SCALE also complements bilateral activities supported by the Dutch embassy in each target country. Project work plans are closely aligned with embassy strategies for development assistance.

PARTNERS

2SCALE is implemented by a three-member consortium: the International Fertilizer Development Center (IFDC), Base of the Pyramid Innovation Center (BoPInc.) and the International Centre for development oriented Research in Agriculture (ICRA). Each partner has its special area of expertise — IFDC in field implementation and agribusiness development, BoPInc. in low-income markets and Dutch private sector linkages, ICRA on capacity building. This is what makes 2SCALE unique: partners with global experience, complementary skills and a common goal.

The private sector is a key partner. The goal is 100 percent co-investment, where every donor dollar is matched by a private sector dollar, contributed by companies, farmers and local entrepreneurs in cash or in kind (materials, facilities, staff time). In 2014, private cluster actors contributed two-thirds of the total budget for cluster action plans $- \notin 7$ million out of $\notin 10.3$ million.

Focus

2SCALE focuses on four commodity groups:

- **Staple crops** maize, rice, sorghum, cassava
- Fresh produce, mainly vegetables and potatoes
- Oilseeds, e.g. soybeans, groundnuts
- Animal products, mainly dairy

Each of these groups is important in every target country. This focus on priority sectors ensures that solutions developed in one country can quickly be adapted for use in another.

STRATEGY

Small-scale farmers and entrepreneurs face significant barriers to market participation. 2SCALE uses a market-driven approach to break down these barriers and empower these groups to participate fully in commercial value chains. We bring in innovations in technology and

institutions, build local capacity, and help farmers and entrepreneurs stay competitive.

The project strategy is based on two elements: the CASE approach for agribusiness development and public-private partnerships (PPPs) for implementation. CASE (Competitive Agribusiness Systems and Enterprises) combines several elements — new technologies, training, markets, value chain linkages — to build agribusiness clusters around specific commodities or food products.

Field staff in each country help mobilize and train farmer groups and build agribusiness 'clusters' comprising farmers, buyers, input suppliers, business support services, banks... creating the local networks necessary for inclusive, mutually beneficial business relationships. Every cluster receives year-round training and back-up support from business support services and coaches who are either contracted by the project or appointed by the private firm leading the partnership.

Advisory committees comprising experts from industry, the development sector, government ministries and research centers provide advice, guide program design and monitor progress. The Netherlands embassy in each country provides support in technical expertise, business linkages and other areas.





Protein for the Poor

What has the nutritional value of 66 eggs, but costs the same as just four eggs? Answer — a kilogram of soybean goussi.

Goussi is a popular West African dish, traditionally made from squash seeds. 2SCALE is partnering with the Coopérative de Transformation, d'Approvisionnement et d'Écoulement de Soja (CTAE) in Benin to promote goussi made from soybean cake. It tastes almost identical to traditional goussi and is more nutritious (42 percent protein), more profitable for processors and cheaper for consumers.

In 2014, CTAE sold nearly 130 tons of goussi, worth 50 million FCFA (\$100,000). 2SCALE specialists are helping CTAE to expand further. For example, market research is helping to better understand the players in the value chain, the economics and the opportunities for scaling out. CTAE sells goussi to wholesalers in 50-kg bags. The wholesalers (a group of about 20 traders) pack this into smaller bags that are sold to retailers (women traders from small villages around Cotonou), who sell to customers in their home communities. A small bag, 25 or 50 FCFA depending on size, makes a healthy snack for the family.

Wholesalers typically sell at least 500 kg per week, making a profit of about 50 FCFA per kilo. Retailers make much smaller profits, but for them too, goussi is a major source of income.

"It is women who are really promoting goussi," explains Raphaël Kokoun, production manager at CTAE. "At the factory, all key operations — sorting, cleaning, roasting — are done by women. All the retailers are women. As for the consumers, it is the mothers who know that soy goussi is cheap but highly nutritious."

2SCALE is also working with CTAE to improve marketing. Packaging is being made more attractive and better tailored to different sub-segments. Package sizes are being adjusted, based on findings from market research conducted by 2SCALE in 2013. Nutrition information is being shared through printed packaging, simple leaflets and radio broadcasts.

In less than 3 years, soy goussi has become the main source of protein for at least 11,000 families in southern Benin. 2SCALE is supporting a CTAE program that aims to increase this number to 15,000.

CREATING PARTNERSHIPS

frica offers a huge market for agribusiness — for companies seeking to buy from or sell to farmers, and for farmers seeking access to markets and services. 2SCALE helps create the partnerships needed to turn this business potential into reality.

As of December 2014, 2SCALE has established 53 public-private partnerships in nine countries. Some partnerships are led by small-scale entrepreneurs or farmer organizations. The majority are led by private firms, including multinationals like Heineken, FrieslandCampina, Agrico and East-West Seed; and African firms such as AACE Foods (Nigeria), GUTS Agro (Ethiopia) and Nile Breweries (Uganda).

Each partnership involves farmer groups, a 'lead firm' or a local entrepreneur, and supporting partners — input retailers, processors, traders, banks and others, working together to ensure that farmers are able to produce and sell competitively.

A partnership with Heineken subsidiary Nigerian
 Breweries and local firm Psaltry International has
 created a huge new market for cassava farmers.

- In Uganda, a partnership with the Gulu Agricultural Development Company involves 50 producer groups, four crops and nearly \$700,000 in private investment.
- In Ethiopia, processing firm GUTS Agro will purchase
 \$1.2 million worth of maize and soybeans from
 2SCALE clusters.
- Two large-scale buyers have joined 2SCALE in Benin: SOCIA (maize) and Promo Fruits (pineapples). Each will buy produce from 10,000 smallholder farmers.
- In Mali, processing firm PROSEMA will buy sesame from 40,000 farmers for export.

Other multinationals have committed to purchasing in bulk from 2SCALE clusters — East African Foods (soybeans), Olam (sesame), Nile Breweries (sorghum). Smaller firms have signed on to provide specific services. For example, KickStart and Pepino are helping to scale out low-cost irrigation pumps in Benin, Ghana and Mali. Microfinance providers ALIDé and FECECAM are developing financial products for smallholder farmers in Benin.





Cash from Cassava

Cassava was once an orphan crop, grown by subsistence farmers for home consumption. Not any longer. New varieties, mechanization equipment and better processing methods have created — for the first time — a stable, profitable market for smallholder cassava farmers.

Mozambique

Three partners work on different segments of the value chain — the national research center IIAM, cassava processor DADTCO and beer manufacturer CDM, a subsidiary of SABMiller. IIAM provides new virus-resistant varieties that yield 15-20 tons per hectare, compared to 3-4 tons from local varieties. DADTCO brings the factory to the farm. Their mobile processing units convert fresh (highly perishable) cassava roots into cassava cake, which is sold to CDM as the main ingredient for their popular Impala beer.

Two DADTCO processing units are in operation, in Nampula Province in northern Mozambique and Inhambane in the south. More than 6,000 farmers are registered. Cassava volumes have nearly doubled in 2 years; more than 5,400 tons were processed in 2014. Each month, the cassava business injects 1 million Meticals into the local economy.

2SCALE linkages go even further. Farmer groups are testing a new fertilizer specially blended for cassava; yields have increased by 40 percent. More than 2 million cuttings of a new high-yielding variety were distributed in 2014. 2SCALE helped DADTCO customize an IT platform for field surveys, farmer registration and supply chain monitoring.

Several new partners came on board in 2014. Two large new projects (the government's ProSul program and an AGRA-

funded, IFDC-led project) are extending 2SCALE's cassava model to new areas in Mozambique.

Nigeria

In June 2014, the country's largest beer producer, Nigerian Breweries (a Heineken subsidiary), launched a partnership with processing firm Psaltry International. Lilianne Ploumen, Netherlands Minister for Foreign Trade and Development Cooperation, attended the launch. "Heineken's decision to be part of 2SCALE proves there are real opportunities in Africa for the Dutch private sector," the minister said.

Psaltry purchased 12,000 tons last season from 500 farmers, and expects to buy 21,000 tons next year. 2SCALE helps mobilize and train farmer groups and link them to banks and to retailers who supply stem cuttings, fertilizers and pesticides. Training programs on crop and soil management have reached more than 150 farmers and extension workers. Low-cost mechanization equipment is being introduced, helping farmers reduce costs and increase profits.

Mali

A new program was launched in August 2014, connecting a women's cooperative to new markets for attiéké, a traditional dish made from fermented cassava. By 2017, the cooperative aims to process 9,000 tons of cassava per year, selling attiéké to low-income consumers in Cote d'Ivoire and Mali. The value chain will involve 5,000 smallholder farmers and a network of traders, transporters and micro-finance agencies.

Partners for Profit

2SCALE has 53 public-private partnerships in nine countries. Some examples are listed below. Different scales, different crops, same approach — not offering aid, but promoting trade and development.

ACOF, Mozambique, aggregates soybeans from 2,500 smallholder farmers for resale. This partnership has helped identify new markets, improve production and processing technologies, increase farm profitability and introduce crop insurance.



DANMOZ, Mozambique, is a dairy company aiming to triple its farmer network to close the huge demand-supply gap in domestic production. 2SCALE support has helped improve milk yields and quality, increase feed and fodder production and roll out new distribution models for low-income consumers.

East-West Seed provides 2SCALE clusters in Benin, Ghana, Mali and Nigeria with new varieties of tomato, cabbage, onion and other vegetables. Multi-country demonstration and training programs are operational; farmers have been linked with new markets, credit, and input and service providers.





Eldoville Dairies, Kenya, buys milk from smallholder dairy farmers to produce cheese and yogurt. 2SCALE linkages have helped the company develop a new whey product, introduce feed and fodder technologies and adopt ICT tools for enterprise management.

FrieslandCampina Wamco, Nigeria, works with 2SCALE to source fresh milk locally, rather than relying on imported milk powder. This partnership has brought traditional pastoralists (and 'sedentary' producers) into the commercial dairy sector, with improved husbandry, feed and fodder technologies, quality management and other innovations.

Fruittiland, Ghana, produces citrus juice concentrate from fruits grown by smallholder farmers. 2SCALE linkages helped the company transform its supply chain management and overcome technical challenges to restore production of Fairtrade-certified products, giving farmers a premium of \$200 per ton.



The Gulu Agricultural Development Co., Uganda buys sesame, sunflower, cotton and chilies for processing and resale. Training and project support has led to widespread technology adoption by farmers and large company investments in processing.

Heineken subsidiary Nigerian Breweries is

significantly expanding local sourcing of cassava, through a partnership with 2SCALE and local processor Psaltry International. Farmer mobilization and training have been successful, and farmer enrollment is expected to triple by 2016, with higher yields and lower production costs.



HPW Fresh & Dry, Ghana, buys mango and pineapple from smallholders and exports dried fruit to Europe. 2SCALE technical support to local networks has substantially improved volumes and quality, increasing profits for farmers and the company.

Nile Breweries, Uganda's largest buyer of sorghum, partners with 2SCALE to strengthen its supply chains in Uganda and (starting next year) South Sudan. Smallholder farmers now have a guaranteed market as well as extension support, training and access to inputs.

Promo Fruits, Benin, sources pineapples from smallholder farmers to produce juice for the West African

market. 2SCALE linkages are helping the company triple its throughput and expand its supplier network to 10,000 farmers.

PROSEMA, Mali, buys sesame from smallholder farmers for processing and export — but is able to source barely 10 percent of its requirements. 2SCALE support is helping to mobilize more farmers, improve yields and quality and promote irrigation, allowing farmers to produce two crops per year instead of one.

The Sesame Business Network, Ethiopia, works with 19 farmers unions and nearly 100,000 smallholders. This partnership is scaling out new technologies to increase sesame yields and new rotation crops to improve soil health and the sustainability of sesame farming systems.

Solagrow, Ethiopia, offers seeds, extension support, training and mechanization services to smallholder potato farmers. The company also offers marketing services, on commission, for domestic and export markets.



AFRICA WORKS!

Leiden, October 2014. The Africa Works! conference was a unique platform for business networking, with 750 participants from governments, industry and NGOs. The speakers included Lilianne Ploumen, Netherlands Minister for Foreign Trade and Development Cooperation; Julia Duncan-Cassell, Liberia's Minister of Gender and Development; Miguel Pestana, Unilever Vice-President; Ruerd Ruben, member of 2SCALE's advisory committee and a host of other experts.

The conference included a workshop on the 2SCALE approach, with presentations by project staff

and partner company AACE Foods. The 2SCALE workshop was rated among the top three sessions at the conference.

AACE Foods, which works with 2SCALE farmer groups in Nigeria, has expanded from simple sourcing of fresh produce to formal contracting, electronic payment and other innovations. "Through 2SCALE we have direct access to farmers, and control over the varieties grown and the drying and storage methods used. So our supply chain improves and farmers, the company, consumers... everyone benefits."

Promoting Innovation

Towth requires innovation — in technologies, processes, institutional arrangements, policy. 2SCALE is helping to foster innovation and to better understand how innovations emerge and spread. We've introduced more than 60 innovations in crop production, processing, dairy, soil and water management and financial services.

- New crop varieties (developed by partners, scaled out by the project) have improved yield, quality and farm profits, and created new 'cropping windows'. These include potato varieties from Agrico, cassava from IIAM, soybeans from IITA, tomatoes from East-West Seed and sorghum hybrids from Advanta.
- Improved production methods such as plastic mulching, trellising and drip irrigation have increased yields of vegetable crops in Benin, Ghana, Kenya, Mali and Nigeria and are being scaled out to other countries.
- Rhizobium inoculants have increased soybean yields by up to 40 percent in Benin, Ethiopia, Ghana, Nigeria and Uganda.
- Mechanization options are reducing labor costs and increasing profits: canne planteuse for maize (Togo, Mali), specialized planters for potato (Kenya), cassava (Nigeria) and sesame (Uganda).
- Fertilizer technologies such as deep placement, multi-nutrient blends and integrated management methods are increasing yields, reducing production costs and minimizing damage to the environment.

BOUQUETS FROM BENIN

In December 2014, the Conseil de Concertation des Riziculteurs (CCR, the umbrella organization of rice producers in Benin) honored the project with a special award. The ceremony was broadcast live on national television. CCR commended 2SCALE for its broad-ranging work: farmer training, cluster development, improving access to agro-inputs and credit, introducing new fertilizer technologies, value addition and more.

New ICT tools have helped companies in Kenya, Mozambique and Nigeria monitor their supply chains, track volumes and quality and establish faster and more transparent payment systems.

The emphasis is on combining innovations wherever possible, to maximize impacts. For example, the partnership with FrieslandCampina in Nigeria combines animal husbandry practices, new forage crops, lactometers for quality control, new financial arrangements and special nets to control tsetse fly. Smallholder producers and their business partners (e.g. input dealers, milk transporters) are sharing the cost of these new products.



Innovations — Tested & Proven

Tomatoes in Benin. Farmers in southern Benin could not grow tomatoes during the rainy season because crops were destroyed by bacterial diseases. Enter Padma, a new variety from East-West Seeds, that is bacteria-resistant, has good color, taste and shelf life, and gives double the yield of local varieties. Nearly 9,000 tons of Padma were harvested in 2014, generating revenues of over \$4 million.

Value addition in Nigeria. A low-cost solar dryer, built by local artisans using local materials. The dryer allows small-scale pepper farmers to add value to their harvest, at home, with minimal investment. Prototypes have been tested and refined in one region. 2SCALE partner AACE Foods plans to replicate the dryer with farmer groups across Nigeria.

Rhizobium: from demonstration to commercial

scale. Easy-to-use 'inoculation' that improves nitrogen fixation and yields in soybeans. A one-dollar investment in inoculum can give returns of up to \$20 in extra grain. In a single year, soybean farmers in Benin, Ghana and Nigeria have moved from training and demonstrations to regular use, thanks to 2SCALE linkages that enabled them to buy inoculum and other inputs on credit.

e-Prod for supply chain management. A robust, low-cost software platform for companies that work with large numbers of farmers. e-Prod can monitor volume and quality of deliveries, transact payments, even plan transport logistics. A number of 2SCALE partners tested the system in 2014, and several plan to purchase commercial licenses.





"We like the convenience, our farmers like the transparency. It takes less than 15 minutes to enter all production data for a group of 150 farmers. We're even reducing fuel costs by using e-Prod to plan our collection routes."

e-Prod user Andrew Waithaka,Plant Manager, Eldoville Dairies

Milk and Water Don't Mix

In 2013, during quality checks at its milk collection centers in Nigeria, FrieslandCampina Wamco (FCW) noticed an increase in milk adulteration. Some producers were adding water to 'bulk up' their milk volumes. These lots were rejected, causing losses not only to the producers but also to FCW and the transporters, who receive no payment if the milk is rejected.

2SCALE proposed a simple solution to combat adulteration: lactometers, small glass tubes that measure the density (hence purity) of milk. The pilot began with a two-day training for 16 transporters and four Community Livestock Workers from two milk collection centers, Fashola and Alaga. Milk is now tested at two stages: at individual producer level (tested by Community Livestock Workers) and after bulking, before being transported to the collection center (tested by the transporter).

FCW and 2SCALE closely monitored the pilot with additional testing from August to October 2014. The number of

rejections at the collection centers fell from 20 per day to zero. The percentage of total solids increased from 11 to 12 percent, reaching FCW targets.

Why did the pilot work so well? First, producers are aware that adulteration can easily be detected, and the responsible individual identified, on the spot. Second, compliance is monitored by the community, creating social pressure that forces offenders to change their behavior. Third, 'serial offenders' are quickly identified and their milk systematically rejected. The only loser is the adulterating producer, not others in the chain.

In 2015, FCW will roll out the program to all four dairy clusters. Transporters and Community Livestock Workers have agreed to share the costs of buying additional lactometers since their business benefits directly from improved quality.





Precision Fertilizers

Rice farmers in Kenya are using a 2SCALE innovation to increase yields by 30-40 percent while using 30 percent less fertilizer. This easy-to-use technology, known as fertilizer deep placement (FDP), is being promoted globally by 2SCALE partner IFDC.

2SCALE's technology 'package' combines FDP, improved agronomic practices and a manual direct-seeding machine that eliminates the need for transplanting and cuts labor costs by half. The FDP program in Kenya is led by ARM Holdings, a local fertilizer manufacturer. ARM manufactures FDP briquettes, supports training programs and runs demonstration plots on farmers' fields. The target: at least 10,000 users by year 2017.

Eliud Muthee is a rice farmer in Mwea. His neighbor was among the first to join the FDP program, but Muthee was skeptical — the yields were simply too good to be true. In 2014 he converted, and now uses the technology package on 14 of his 15 acres. And the one remaining acre, where he used traditional methods? Muthee pretends it belongs to someone else!

Raphael Mutugi's story is similar. He first participated in the FDP program as a 'control'. His field (traditional practice) was used to compare-and-contrast with his brother's field (improved practices). In 2014, Mutugi used the 2SCALE technology package for the first time. He harvested 3 tons per acre — 50 percent more than before — while substantially reducing seed and fertilizer costs. For example, he cut his seed costs by 80 percent by switching from broadcasting to row-planting.

DEEP PLACEMENT: HOW & WHY

Most rice farmers apply fertilizer by 'broadcasting' it in prilled or granular form. Only one-third of the applied fertilizer is absorbed by plants. The rest is wasted, either washed away with irrigation water or escaping into the atmosphere as greenhouse gases. The solution? Fertilizer deep placement.

Instead of being broadcast, fertilizer is compacted into briquettes that can be precisely placed in the soil. FDP cuts down fertilizer losses and keeps nutrients plant-available for much longer. Result? Lower production costs, higher yields, and substantial reductions in fertilizer-related greenhouse gas emissions.

FDP technology, originally developed in Asia, is taking root in Africa. Programs in 19 countries have helped design equipment to manufacture FDP briquettes, design FDP applicators (less than \$10 each) and train local entrepreneurs to make and sell them. Worldwide, more than 2.8 million rice farmers use FDP, mostly on rice, but increasingly for other crops as well. For example, 40,000 women farmers in Bangladesh use FDP on vegetables, under a project funded by Walmart.

BUILDING CAPACITY

apacity development is central to 2SCALE. We provide support and mentoring to ensure that farmers, entrepreneurs and other supporting actors have the skills to create and manage viable businesses, and to stay competitive in a changing market.

With hundreds of clusters and local networks in nine countries, direct training is obviously impossible. Instead, we use cascade training, where 2SCALE teams train specialized trainers, who train coaches, who work with farmer groups. 2SCALE staff monitor performance and provide year-round guidance.

- As of December 2014, 77 business support services and 119 coaches are in place in six countries. In the remaining three countries, support structures and coaching teams will be deployed by mid 2015.
- Training programs for coaches were held in six countries: 26 learning workshops supplemented by 235 one-on-one training sessions for 96 coaches.
- 13 national and regional workshops were held in 2014; over 250 partners from 44 agribusiness clusters helped review performance, identify training gaps and set priorities for 2015.

Program evolution. Large 'lead firms' began playing a more central role in 2014, and the training focus changed accordingly. With generic training (e.g. competitiveness, marketing, finance) completed in previous years, we're moving towards training programs tailored to each partnership, and often conducted by staff from the lead firms.



This allows training programs to also become problemsolving platforms where cluster actors can work together to overcome specific challenges. For example, how can vegetable farmers in central Kenya cut transport costs to market? How can potato growers in Mozambique reduce post-harvest losses? What incentives will persuade sesame farmers in Mali to refrain from side-selling?

Of the 53 major partnerships in 2SCALE, 20 were selected for a pilot program of tailor-made training. Needs assessment has been completed for all 20, plans developed for eight of the 20, and implementation has begun in Benin, Nigeria and Uganda.

Quality control. In addition to year-round performance monitoring, 2SCALE has developed a rigorous certification process for trainers and coaches. The aim is to develop highly skilled teams that will support the clusters long after 2SCALE closes. As of December 2014, 12 trainers and 36 coaches in six countries have been certified to Level 1 and are working towards the next certification level.



Learning modules. Previous training was based on four modules on general agribusiness concepts. In 2014 we developed seven new modules on specific topics, ranging from warrantage (inventory credit) to prospecting low-income markets to the requirements for successful contract farming. Draft versions are being field-tested and will be refined in 2015, to have a complete set of 11 training modules.



"I can make a difference"

Gbenga Idowu is a qualified veterinarian and a 20-year veteran in crop and livestock development. But as trainer of a 2SCALE partnership, he knows that 'people skills' are as important as technical knowledge.

Idowu is the trainer for the Oke-Oyi soya cluster in Kwara State, Nigeria. He works with Mohammed Ubale, the cluster coach, to build skills in farming methods and enterprise management — and equally important, to ensure that the 1,400 cluster actors work as a team.

"It's easy for a cluster to gradually drift apart because everyone has their own priorities," Idowu explains. "So we introduced the concept of cluster mapping — simple drawings to visually represent the different actor-groups within the cluster, and the relationships between them. We didn't make the cluster maps ourselves. We taught the farmers, and they made their own maps."



The maps helped to understand each person's role and how their roles fit together; and to identify weak links in relationships. Using the maps as a starting point, Idowu and Ubale led a business re-organization of the cluster. They helped suppliers and buyers negotiate credit arrangements, ensure inputs and services (e.g. tractors) arrived on time, and plug marketing gaps. The cluster budget was revised and operations expanded.

The Oke-Oyi cluster produced 116 tons of soybeans last season. Farmers earned profits — after all expenses — of more than 2 million Naira.

FINDING FINANCE

redit is often the missing link. Lack of cash can leave a farmer unable to buy seeds and fertilizer, or an entrepreneur unable to buy goods to trade. 2SCALE helps unlock credit in various ways — by linking farmers and agribusinesses to credit providers, by helping entrepreneurs improve their business planning, making ideas and enterprises more 'bankable', and providing technical assistance to help banks and microfinance agencies make their products more farmer-friendly.

Finding money isn't easy, but results in 2014 far exceeded expectations. The reasons? 2SCALE linkages, financial training for clusters, project mediation between borrowers and lenders, and the use of innovations such as multipartite agreements between farmer groups, buyers and banks.

- Oikocredit-Netherlands lent 400 million FCFA (\$800,000) to Promo Fruits, a juice processor that buys pineapples from 2SCALE groups in Benin. The first tranche (November 2014) helped establish a can production unit. The second (February 2015) will fund the purchase of processing equipment.
- Century Microfinance developed a loan program for banana growers in Kenya, with repayment terms tailored to the harvest cycle. Mavuno Uwezo (meaning Enabling the Harvest) has benefited more than 600 farmers in 2014, and will expand further next year.
- Mutuelle Amana Al Oumma lent 22.8 million FCFA (\$45,000) to three 2SCALE clusters in Gaya, Niger. The loan enabled the clusters to expand production of peanut butter, cooking oil and other



groundnut products, and remain viable and financially independent after 2SCALE phased out in May 2014.

- LAPO Bank lent 10 million Naira (\$65,000) to a group of 100 chili pepper farmers in Pampaida, northern Nigeria, enabling them to fulfill a production contract with another 2SCALE partner, AACE Foods. The loan was made possible by a tripartite agreement between LAPO, AACE and the farmers.
- ALIDé, a microfinance provider, lent 37.4 million FCFA (\$75,000) to group of vegetable farmers in Benin, enabling them to buy drip irrigation kits to ensure year-round production. The loan was contracted in July 2014 and repaid in January 2015, ahead of schedule.

The Invisible Woman

Women play a key role in agricultural value chains in Africa. But their opportunities to access credit, learn about new technologies or build assets remain severely limited. The main reasons are socio-cultural. In addition, not many development organizations have succeeded in mainstreaming gender into their activities; interventions targeted at women remain ad hoc or sporadic.

2SCALE is different. Nearly 30 percent of our farmer-partners are women, and this will increase to 40 percent by 2017. Gender relations are factored into selection of participants, design of training programs, even the choice of technologies to be scaled out. Project teams routinely use a 'gender lens' to evaluate business proposals and to encourage women's participation in community-level planning and budgeting meetings. Field teams have been trained on the new approach. Introductory programs in 2013 were followed by intensive coaching in 2014 conducted by gender specialists in Benin, Ghana, Mali and Nigeria.

Challenges remain, but results so far have been encouraging.

- In Benin, soy goussi, a new variant of a traditional food, is rapidly becoming a major source of protein. Every step of this transformation processing, retailing, consumption decisions was led by women.
- In Burkina Faso, a women's rice-processing cooperative has grown from 80 to 400 members, and has contracts with several bulk buyers including the national food security agency.
- In Kenya, more than 5,000 farmers grow a new cash crop known as Stevia. This expansion was driven by women, who manage the nurseries and process the harvest.
- In Mali, an onion cooperative (1,020 members, of whom 860 are women) uses new varieties and improved husbandry to improve yields and quality. Sales in 2014 exceeded \$250,000.



TARGETING THE POOR

2 SCALE focuses not only on smallholder farmers but also on low-income consumers at the 'base of the pyramid'. We target poor households directly (income generation through agribusiness) and indirectly, when project clusters produce food products for low-income consumers.

Many companies are unfamiliar with the low-income market segment and therefore reluctant to invest in developing products for these consumers. The solution? Pilot programs co-funded by 2SCALE to help develop and launch new products. The pilots examine pricing and distribution strategies, conduct test-marketing and provide credit linkages and other support to ensure the new product will succeed. For example:

- Soya *goussi*, Benin. Traditional product with a new twist (see page 3). Quality improved, promotional material and new packaging created.
- Kangkong (water spinach), Benin. Introducing a completely new, highly nutritious crop. Production costs analyzed, consumer acceptance established.
- Cottonseed oil, Uganda. Huge potential but underexploited. Domestic and export market prospects established, consumer acceptance tested, equipment specifications determined.
- Flavored whey, Kenya. New product, marketed as a low-cost health food for children. Processing methods perfected, shelf life significantly improved.

In parallel with these pilot projects, market research is helping to understand what works and what doesn't,



for low-income consumers. In Nigeria, we've identified products and potential partners in four areas: dairy products for children, processed vegetables, soya products and maize. Similarly in Benin for soya cheese, fortified maize flour and pineapple juice.

Studies in Nigeria and Ethiopia – the two biggest markets in sub-Saharan Africa – provided insights on food consumption patterns, purchase drivers and attitudes to new products. Several new pilots are being designed based on the findings, and will be rolled out in 2015.

Million Dollar Maize

GUTS Agro, a processing firm in Ethiopia, will buy maize and soybeans worth \$1.2 million from 2SCALE clusters. In October 2014, the company signed contracts with two farmer unions, Sidama Elto for maize and Hunde Chewaka for soybeans. GUTS will pay \$250,000 in advance to help farmers meet the costs of collection, grading and delivery. As of December 2014 (harvest ongoing), 128 tons had been delivered.

Maize and soya from 2SCALE clusters will be used to produce low-cost baby food... a high-protein corn-soya blend for children, never before manufactured in Ethiopia. GUTS Agro has expanded its factory and purchased new packaging equipment. Production trials are almost complete, and the first batch of Supermom's baby food will arrive in the market in mid-2015.

Supermom's was created through a unique partnership.
GUTS saw a market niche but needed technical assistance.
2SCALE linked the company with the PUM program in
the Netherlands, which seconded an experienced food
technologist to help design the production process, install
new equipment, and produce and test trial batches.

2SCALE also linked the company with farmer groups, and (in partnership with the local office of agriculture) trained farmers and extension staff. Training programs focused on two areas: crop management methods to increase yields and postharvest handling methods to reduce wastage and storage losses. A 'cascade' approach was used, reaching 140 government extension agents and more than 2,600 farmers in 2014.

Farmers are testing three new soya varieties as well as Rhizobium inoculants that stimulate the growth of specialized root nodules that, in effect, allow soybean plants to make their own fertilizer. Sixty demonstration plots were set up to in 2014 to train farmers on agronomic best-practices.

2SCALE will complement the company's investment with a grant of 1.2 million Ethiopian Birr (\$60,000) for product development and marketing. We're testing a new distribution system, where Supermom's (and other GUTS products) will be distributed door-to-door by vendors with carts. The new system will be piloted in low-income neighborhoods in three cities, Hawassa, Adama and Dire Dawa.











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