

2SCALE



Highlights 2020

2SCALE Consortium



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1. Introduction

About

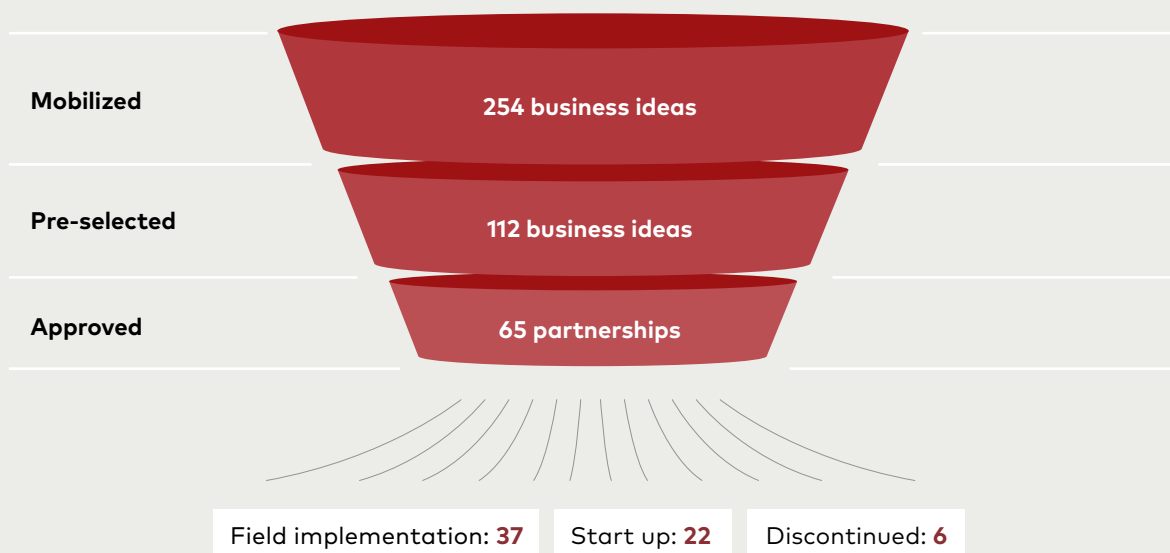
2SCALE works together with the local private sector to build sustainable agribusiness networks. Small-scale farmers are connected with each other, with produce buyers and processors, and with other partners who supply goods and services. Through collaboration in public private partnerships (PPP), training, technical advice and business linkages are provided, to help farmers and other local small and medium businesses become more competitive and able to respond quickly to new opportunities. Through all this, entrepreneurial agribusiness 'clusters' are built, that support local economies and create jobs. Most importantly, 2SCALE has shown that the concept of inclusive business – farmers and other entrepreneurs working together for mutual benefit – is not simply a theoretical ideal but a practical, effective development approach. 2SCALE was launched

in June 2012 and entered a second phase of implementation as of 2019. At the end of 2020, we built the foundation for 65 new business partnerships for this second phase, in 8 countries, and in four sub-sectors – staples, fresh produce, oil seeds and animal products. We've laid the foundation to introduce on- and off-farm innovations for eco-efficient agriculture, improve business skills, and develop nutritious, affordable food products for low income consumers.

COVID-19

Soon after the start of the year 2020, we realized that a new virus, COVID-19, would have a detrimental impact on the world, the African continent and more specifically on our 2SCALE program. Effective as of March 11th 2020, we suspended all travel (international, regional and local) by the 2SCALE team. In other words, the 2SCALE program entered

Getting to a portfolio of 65 partnerships



Division of partnerships across portfolio



Staple crops: **25**



Fresh produce: **13**



Soy and oil seeds: **13**



Animal products: **14**

Different types of commodities across partnership portfolio



Input distribution: **4**



Primary production: **2**



Aggregation: **16**



Processing: **40**



Food retail: **3**

Different types of core businesses across partnership portfolio



Farmer producer organisation: **14**



Small-medium enterprise: **39**



Large scale enterprise: **12**

Different types of business champions across partnership portfolio

into lockdown. The work of 2SCALE moved to a remote coordination and depended heavily on delivery by our business support service (BSS) providers, the business champions and our partners in the field. Where possible, we utilized remote, digital and creative approaches to keep on delivering on our different partnerships. Where we had hoped that these measures would be for the short term, we soon realized the measures would be needed for a much longer period. And even though over time some measures could be eased and local travel, field work and trainings were resumed again in all 2SCALE countries (depending on national policies and measures), 2020 became a year where we had to get used to a "new normal" with continued restrictions on movement, group size, personal hygiene and others. All these measures also had a great impact on the farmers, companies and other stakeholders 2SCALE works with. Nevertheless, thanks to the big efforts made by our business champions, BSS providers and

other partners, we were still able to implement most activities that were foreseen for 2020.

Completing the portfolio

In 2019, 2SCALE continued for a second, five-year phase of the program, with a fresh new start. A completely new portfolio of 60 inclusive business Public Private Partnerships (PPPs) had to be developed, mostly across 2019 and 2020. Even though 2020 was a tough year, 2SCALE managed to reach this target. By the end of 2020, 65 PPPs were formally approved by the external selection committee. 37 of these already had field activities in full implementation across 2019 and 2020. 22 of these were started in the second half of 2020, and six partnerships were suspended for different reasons. These 65 PPPs were sourced through 244 inclusive business ideas that were shared with 2SCALE by potential business champions. For further details, please see the graph below.

Progress to date

2SCALE is an ambitious program and this is translated into ambitious targets, such as improving access to nutritious foods for 1 million BoP consumers or improving the livelihoods of 750,000 smallholder farmers. For a full overview of all 2SCALE impact indicators, please visit the [2SCALE website](#). The 2SCALE portfolio is close to complete and despite the negative effects of COVID-19, 2020 already saw active implementation of field activities under 37 partnerships, leading to a first, promising progress against the different impact indicators. Below we present you a first dashboard of key progress to date against a selection of these indicators. These first results show a positive outlook to reaching all impact indicator targets by the program's end by the end of 2023. We expect these results to be further accelerated in 2021, when program implementation, with a full partnership portfolio, is in full swing.

Partners

2SCALE is funded by the Netherlands government and implemented jointly by the International Fertilizer Development Center (IFDC), BoP Innovation Center (Bopinc) and

SNV. The Partnership Resource Center (PrC) is a strategic partner to the consortium and works with 2SCALE on action research and the establishment of the monitoring & evaluation (M&E) approach. And behind us are a host of other organisations. Private firms bring in new technologies and provide technical training. Banks assist with financial literacy programs. Public sector agencies provide staff, facilities and other resources. Development organisations apply inclusive business concepts in their own programs and fund add-on projects that complement 2SCALE. Universities and international research centres support specific research components.

The report

In this highlights report 2020, we have made a selection of the different thematic areas we are working on, and under each section we highlight some of the key activities we've worked on in 2020. For the full stories and more information on the topics, themes, countries and sub-sectors 2SCALE is working on, we highly recommend you to visit [2SCALE's website](#) or follow us of [Twitter](#), [Facebook](#) and [LinkedIn](#).

Targets for the second phase of the program



Improve access to nutritious food for at least 1 million BoP consumers

In 40 BoP markets, access to nutritious food products for 1 million BoP consumers will be improved, through inclusion in targeted value chains.



Improve the livelihoods of 750,000 smallholders

750,000 smallholders (50% women, 40% youth) will benefit from interventions like training on agricultural practices, access to better inputs or increased negotiation skills.



Develop inclusive business with 5000 MSMEs

5000 MSMEs and farmer producer organizations (50% women-led) are supported to participate in inclusive value chains and to develop innovative business strategies.



Scale over 60 public private partnerships

Starting 2019, 60 Public Private Partnerships driving inclusive agribusiness strategies will be established and developed in 8 different countries in Sub-Saharan Africa.

Aerial shot of a market in Northern Ghana



2. Dealing with COVID-19

The new reality

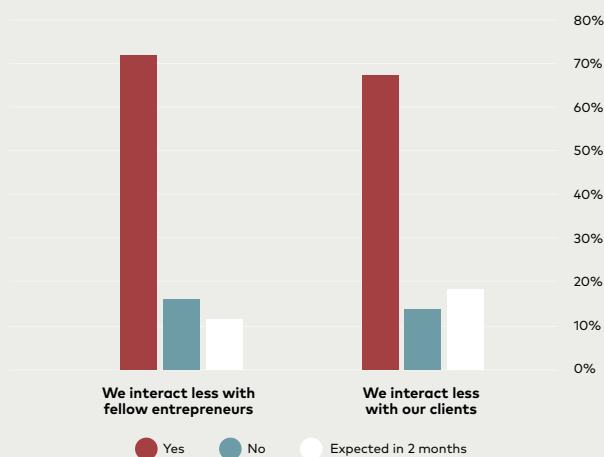
The year 2020 will forever be remembered as the year of COVID-19. A pandemic with a great impact on the health of people across the world, but also on their food security status. FAO, in its State of Food Security and Nutrition around the World report for 2020, estimated that between 83 and 132 million people might be added to the total number of undernourished in the world in 2020. Governments in all 2SCALE countries took significant measures to limit propagation of the virus, with restrictions on the movement of goods and people being one of the most impactful measures. Obviously these measures took a substantial toll on the implementation of the program. Workshops, meetings, outreach activities like farmers' field training and others, were suspended for a longer period of time or had to be organized in smaller groups to respect social distancing.

How our business champions were affected

Our business champions, the engines of our program, were greatly affected, leading to a steep fall in overall economic activity. To better understand the effect of the crisis on their operations, in April we ran a quick questionnaire that gave us detailed insights. Over 40 of our private sector partners from different program countries responded. We learned that business champions struggled to source raw materials from farmers, and where these raw materials were available, prices had shot up significantly. Also, increased spoilage of crops took place because of shocks in connecting demand and supply. As one respondent indicated:

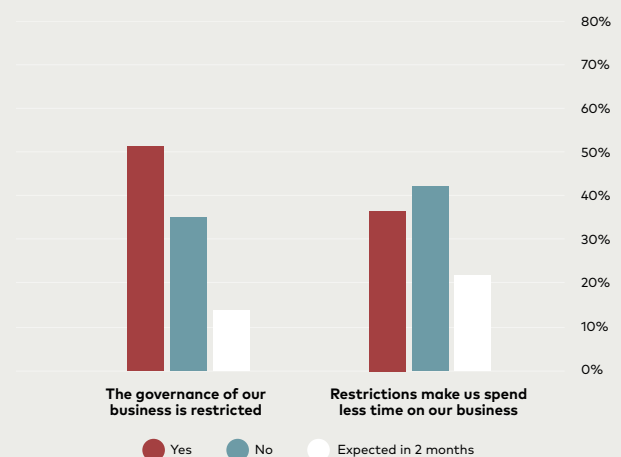
"Due to the curfew imposed by the government, our farmers, aggregators, and agents are finding it difficult moving raw materials from the farms to our factory"

How COVID-19 affects the business interactions by our private sector partners



Results based on survey amongst 43 of 2SCALE's private sector partners spread across 8 countries in Africa.

How COVID-19 restricts business governance and being able to spend time on a business



Results based on survey amongst 43 of 2SCALE's private sector partners spread across 8 countries in Africa.

How the dairy sector in Mali is affected by COVID-19

In Mali, under the dairy partnership, 2SCALE business champion Translait and the wider dairy sector were greatly affected by Covid-19. Moussa Dicko is an experienced dairy farmer and supplies his milk to Translait. As a Fulani man, rearing cattle is something that he learned from a young age. In spite of his experience, he says he has never faced a challenge of this magnitude. "I had never experienced a crisis like this in my entire life. Our cows produce milk every day; we don't have the means to store the fresh milk or process it. But with the collection centers now only accepting much lower quantities, we do not know what to do with our milk. Since the beginning of Covid-19, our milk is going to waste"

At the milk collection centers, the compulsory wearing of masks for staff, more frequent hand washing and other measures were adopted swiftly and relatively effortlessly. But the supply of milk from farmers kept on coming whereas the demand for milk from shops and resellers dropped dramatically. Lassana Sissoko is the manager of a small dairy collection center located in Diatoula, on the outskirts of Bamako: "In normal times, we process and sell about 4000 liters of milk per day. But now we are only selling 300 liters per day. We had to start rejecting milk from our main farmers, also because of the lack of means for preservation and frequent power cuts."

However, the sector also showed a lot of resilience. Following the measures initiated by local authorities, Translait suspended all its monthly governance meetings, which required physical presence. But creative solutions to mitigate this were found. Ms. Badiallo Dramé, President of the TRANSLAIT union indicates: "When physical meetings were banned, we adopted communication via WhatsApp. All members were informed through that channel; and this still continues. But the gap was in the collection of contributions. Currently, we are exploring the possibility of paying contributions via mobile money"



Companies also faced dramatic drops in demand for their products, especially the ones that are supplying other businesses or the institutional market. A business champion in Ghana indicated:

“We supply school canteens, and with schools closed, our sales are strongly affected; they are also one of few customers who paid us cash, so our cash flow is also heavily affected.”

Interaction with end-consumers proved also to be much more difficult, as sales staff of companies were not allowed to directly engage with clients. The same goes for internal interaction at company level. With part of the staff working from home, it was difficult to keep everybody engaged and productive. Unsurprisingly, companies called for support on how to digitize parts of their operations, as well as access to relief funds or other forms of financial assistance.

How 2SCALE first responded

2SCALE first responded by ensuring the safety and the wellbeing of staff and partners, and adjusted to the different measures put in place by local authorities. Soon thereafter, 2SCALE started to develop specific responses to COVID-19, awaiting a further normalization of the situation.

On an international level, 2SCALE was asked by the Dutch government to work together with other Netherlands government funded food security programs to coordinate collective responses to COVID-19. As a result of an initial roundtable discussion between the different heads of programs and government representatives, three main themes (markets & supply chains, finance and digitization) were identified for which communities of practice (CoPs) were set up, with 2SCALE taking the lead on digitization. The CoPs enabled the exchange of good practices, identified opportunities for (in-country) collaboration and provided advice to the Ministry.

Next to digitization, 2SCALE had also identified financial assistance as a key need with many business champions. Because financial institutions were largely suspending their operations during the onset of COVID-19, business champions had to rely on other sources of funding for their acute financing needs. To support our business champions in this, over the summer 2SCALE developed a dedicated crowdfunding platform together with service provider GoodUp, with an initial focus on Mali, Nigeria and Kenya, countries that have existing integrations with payment service providers. Business champions and other private sector partners were trained on how to do crowdfunding. In total, 35 SMEs started a campaign on the platform, and 90% of them ran a successful campaign, raising 60% or more of the targeted amount. One of the companies in Nigeria raising funds was Cato Foods, a company processing biofortified cassava. Next to successfully closing the campaign, Pelumi Aribisala of Cato Foods highlighted another, unexpected, benefit from the campaign, being a boost in reputation and credibility:

“When people see that an international organization is supporting and giving us the platform to raise funds, then it is easier to sell the story. The funds that we raised will go a long way in supporting smallholder farmers because currently the impact of the COVID 19 pandemic has been massive.”

Because of its initial success, 2SCALE is currently considering to continue the use of the crowdfunding platform for future purposes.

How business champions first responded

Different business champions showed they take social responsibility towards their communities very seriously. The relief activities they set up when the first serious impacts of COVID-19 were felt, gave an additional layer of meaning to the idea of inclusive business. The following are just a few examples:

In Ethiopia, East African Holdings, the business champion of the maize partnership, together with the Ethiopian government, provided daily meals to around 10,000 vulnerable people for a period of two months. In Nigeria, Adefunke Dosh, business champion of the sorghum partnership, donated improved sorghum seeds to 1000 female and young farmers across Kano and Katsina state.

In Ghana, the business champion for the maize partnership, KEDAN Ltd, made a donation of 100 bags of maize flour. CEO Eric Kissi Dankwa said: "This donation augments the government's efforts in ensuring that citizens are provided with nutritious food during this COVID-19 pandemic since good nutrition can support the development of a strong immune system". The company also reduced prices as much as 30% for the government and 15% for individual consumers.

Finally in Côte d'Ivoire, Canaan Land, the business champion in the vegetable

partnership, distributed a thousand vegetable baskets per week to most vulnerable families, affected farming households, and medical staff, in close partnership with UN Women. The vegetables were sourced from local women smallholder farmers and involved micro-enterprises in producing and distributing the baskets of vegetables.

Resuming work and creating joint solutions

After the first full lockdowns were relieved, 2SCALE slowly resumed face to face work again, of course taking the safety considerations and measures seriously. Workshops, meetings and other activities resumed, albeit in smaller groups and with social distancing and face masks. For instance, in May a workshop was held in the town of Léo in Burkina Faso to discuss the opportunities for onboarding new farmer groups under the soybean partnership with Siatol. Together, business champions and 2SCALE actively looked for solutions to offset some of the worst effects of the COVID pandemic. Especially the partnerships in the fresh

Targets for the 2SCALE crowdfunding platform



22 activities online

2SCALE business champions organized several online activities to engage potential crowdfunders



\$50,837 USD donated

2SCALE business champions were able to raise \$50,837 through their campaigns



\$20,479 Amount matched

The funds that were raised through the crowdfunding, were match by 2SCALE with \$20,479



574 People involved

A total of 574 people were involved in the campaign, either as crowdfunders or as supporter

produce sector, such as vegetables, were hard hit and required immediate solutions. In Nigeria, under the onion partnership, the business champion Tays Foods and its farmers in Sokoto state witnessed significant price drops. In May, when restrictions in Nigeria were at their peak point, a 120kg bag of onions would sell for \$10, where this was \$20 before the pandemic. This was mostly because of the travel restrictions imposed on trucking companies, blocking regular trade channels. The lack of adequate storage solutions made it impossible for the farmers to store the onions and wait for the off-season when prices would improve. Therefore Tays Food and 2SCALE decided to support the farmers by building eight improved onion storage facilities, known as Sokoto Improved Model (SIM) in June. These structures can store onions for four to six months.

Turning challenges into business opportunities

Even though COVID-19 posed a lot of challenges to our business champions and farmers, some also created opportunities out of the pandemic. Kenyan business champion Sweet n Dried saw an increase in inquiries for their dried African indigenous vegetables products. A Kenyan retail chain, Healthy U, was facing product shortages

due to disruptions in international trade, and they approached Sweet n Dried. Healthy U sought to build long term cooperation, requiring Sweet n Dried to get the necessary certifications, a process that 2SCALE supported in. The increased desire for healthy eating because of COVID-19 was another trigger, where Sweet n Dried saw an opportunity to incorporate African indigenous vegetables into porridge flours for the elderly and children. They developed three porridge flours under the 'Cham' brand that contain ground vegetables such as Amaranth, stinging nettle and pumpkin seeds. The porridge flours saw Sweet n Dried grow their sales from an average of Kes. 200,000 a month in July to Kes. 750,000 in December.

In Burkina, Innofaso, the business champion in the groundnut partnership that produces nutritious complementary food products, initially struggled to come to terms with the negative effects of COVID-19. For a period of time, it was impossible for Innofaso to source groundnuts from farmers, and to get sufficient staff to travel to the factory. The company adjusted sales forecasts to factor in a serious drop in demand. However, new clients approached the company, and Innofaso also managed to further diversify

Niger

Niger, a new country for 2SCALE under the second phase, currently has seven partnerships in implementation. The portfolio covering a wide range of crops, more specifically cassava, groundnut, moringa, maize, potatoes, poultry and millet. The business champions range from grassroots actors such as the farmer groups in the cassava partnership to agri-processing SMEs like Goroubi in the moringa partnership, and large scale companies like Aviniger in the poultry partnership. All together, through these seven partnerships, 2SCALE aims to reach over 64.000 smallholder farmers, 129 SMEs and to bring 34.195 hectares of farmland under eco-efficient production.

to consumer markets. These developments surprisingly led to a substantial sales increase to consumer markets of 72% compared to 2019, leading to an overall 18% increase in turnover against its forecasts for 2020.

Innofaso and 2SCALE had planned to implement a variety of productivity increasing activities in 2020 with 3,500 groundnut farmers. Initially, COVID-19 led to postponement of these activities, and only in July could these activities be resumed.

Farmers were further challenged by severe droughts from July to September. However, at harvest in October, the diversification activities had led to a surprising average increase in production of 12.5%, with some farmers even reporting a quadrupling of production. This increase in production was eagerly sourced by Innofaso.

Representative from Adefunke Desh handing out sorghum seeds



3. Empowering women and youth

According to the United Nations, women make up over 40% of the agricultural labour force in developing countries. And according to the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) 65% of the workforce in the agricultural sector across Africa are youths. In other words, women and youth drive African agriculture. At the same time, women and youth are faced with serious constraints, mostly related to access to productive resources and overall power and agency. A lot still has to be done to empower women and youth. As a starting point, 2SCALE aims for at least 50% of all farmers reached and enterprises involved, to

be female or led by women, and that at least 40% of farmers reached and jobs created are (for) the youth. Setting these targets is just a starting point. What mostly matters, are the activities undertaken by 2SCALE to empower women and youth in their different roles in the agricultural sector.

Fostering an enabling environment

The effectiveness of a large program like 2SCALE should not be limited to its “own” activities. 2SCALE is increasingly a voice in the wider agricultural sector that is taken seriously. To deliver on that role, we contributed to different events and dialogues across the year.



Aya participants in Burkina showcasing their products

On International Women's Day, on the 8th of March, and International Day of Rural Women on the 15th of October, 2SCALE organized different activities to showcase what's needed to strengthen the role of women in agricultural value chains. Because of the circumstances, most of this was done digitally. Around these two important dates, we shared different stories on our social media on how women are taking a leadership role in different 2SCALE partnerships, such as Nasser Aichatou, the MD of business champion Ainoma in Niger or the leading role that women parboilers play in the rice partnership in Côte d'Ivoire. And also beyond these two key moments in the year, we keep on putting women entrepreneurs and farmers in our quarterly spotlights.

Furthermore, 2SCALE was one of the co-organizers of an online series about youth inclusion on June 18th, called "Youth in Agribusiness - Coping with COVID-19 in the context of a Changing Climate". As a youth himself, Alphaxard Gitau, partnership facilitator in the 2SCALE Kenya team, shared with a large audience how 2SCALE is working on the inclusion of youth in the program. Collectively, the speakers identified that the main pathways to improve youth inclusion in agribusiness revolve around the provision of mentorship and dedicated capacity building, further supported by improving the access to finance for youth, calling for the development of exclusive tools to help youth improve their access to funding.

Creating more opportunities for women

Last year, we wrote about expanding the involvement of women with the business support service (BSS) providers we work with. In Northern Nigeria, where traditionally strong gender biases hinder further involvement of women in our partnerships, one of the BSS providers, Agroheed Support Initiative, has teamed up with the Agricultural Graduates Association of Nigeria to provide

opportunities for young women to join their work under the vegetable partnership in Nigeria. Mabruka Adamu Gurori, 23 years old and a recent graduate, is one of the BSS coaches under the partnership. She is very passionate about inclusive agribusiness, but she also acknowledges being a female coach is not always easy in Northern Nigeria. She indicates:

"What motivates me is that we women are left behind in everything. That's why I want my fellow women to see how I work hard to do these things, even if it's not easy."

Also on a farmer level and micro-entrepreneur level, we strengthened entrepreneurship and income-generating opportunities for women. In different rice partnerships across West Africa, we see a lot of potential with women parboilers that run small operations in local markets. To enable these women to capitalize on the increased demand for parboiled rice, we provided extensive group training on improved parboiling techniques, introducing modern equipment, and strengthening marketing of the produce. A good example is the rice partnership in Côte d'Ivoire with business champion Locagri and other rice processors and with business champion Tamanaa in Ghana.

Continuing from where we left it last year, we brought Aya, 2SCALE's 6 month entrepreneurship course for women in agribusiness, to Burkina Faso in February. 57 women from different SMEs active across Burkina benefited from the training and peer learning among other entrepreneurs. One of the participants, Ms. Soma Fatoumata of Cyfy Agro indicated:

"Because of this training, I now have a good knowledge of financial and time management and I especially appreciate the connection with other experienced women entrepreneurs"

For the rest of 2020, we had planned to bring the Aya approach to Côte d'Ivoire, Mali, Kenya and Nigeria, but due to COVID-19 and the importance of face-to-face interaction for the Aya approach, we decided to postpone most of this to 2021. First assessments were undertaken in Kenya and Mali to get a better sense of the most promising niches for women entrepreneurship in agriculture.

Investing in the future of youth

Building on the experience of 2SCALE and its implementing partner SNV's Opportunities for Youth Employment (OYE) approach, we made considerable steps in 2020 in mainstreaming youth inclusion approaches throughout the program. All 2SCALE staff were trained on youth inclusion, and different OYE country mappings were undertaken. These efforts were further complemented by training 131 BSS coaches in Mali, Niger, Nigeria, and Burkina Faso. Subsequently, they trained 715 youth active under different partnerships on life and business skills.

Also more partnership specific economic opportunities for youth inclusion were further pursued. In Ethiopia, youth were

involved in the honey partnership through the production of beehives. In Kenya, youth are providing digital soil testing services under different partnerships while in Burkina Faso, youth are serving as distributors of the local dish 'attieke' and animal feed products under the cassava partnership. In Ethiopia and Ghana, we helped youth to set up saving schemes and helped them to connect to financial institutions to access micro-loans which they could use to finance improved seeds, equipment, and other relevant products and services. As part of the vegetable partnership with Neighborhood Freshmart in Kenya, 4 youth groups were identified to set up seedling nurseries and provision of spray services. Also in Kenya, under the poultry partnership with Homerange, 285 youth in 13 youth producer groups were engaged under their outgrower scheme, building on experiences and tools developed in an USAID funded program on youth employment in Northern Kenya.

To strengthen the position of youth in the governance of partnerships, we identified opportunities to put youth in decision making positions. Youth were included in partnership leadership roles in the maize and rice partnerships in Ghana, the groundnut

 **Ethiopia**

For Ethiopia, 2SCALE has set some of its highest impact ambitions. Not surprisingly, 2SCALE currently has 10 partnerships in implementation in Ethiopia, with products ranging from teff and beans to dairy, spices and oilseeds. The business champions of the different partnerships are fairly divided between farmer cooperative unions such as Ras Gaint, SMEs and larger companies like East African Tiger Brand Industries. Overall, under the current portfolio, 2SCALE and its business champions aim to reach 142.150 smallholder farmers and 230.000 BoP consumers.

and potato partnerships in Niger, the dairy, rice and vegetable partnerships in Mali and a variety of partnerships in Nigeria. 2SCALE also trained these youth on how best to voice their interests and concerns in the different governance structures.

Lastly, we have looked specifically at interest and ambitions of youth and realized one of the other thematic priorities for 2SCALE, digitization, attracts the interest of many.

To leverage on this, we ran a pilot in Kenya together with digital service provider, Kuza. 10 youths were involved in a 15 week entrepreneurship program, developing digital soil testing and other services to be offered to an initial 1000 farmers under the groundnut partnership. Together with business champion Batian Nuts & Kilimo Trust, we're working on the further scale up of this pilot to more farmers.

Female oil seed farmer in Ethiopia



4. Nutritious products for the BoP

Purely in terms of numbers, it's the highest target we have set for the 2SCALE program: 1 million BoP (base of the pyramid) consumers who have improved access to nutritious food. The main pathway to achieve this is to work with our business champions and others to make their nutritious food products more affordable, accessible and available to low-income earners. In 2SCALE we do this mostly by working on product development, marketing and distribution. [This publication](#) gives a detailed insight in how we piloted these approaches under the first phase (2012-2018) of 2SCALE.

Zooming in on nutrition

Even though nutritious food products were also the focus of attention under the first phase of 2SCALE, there was not yet a targeted indicator on this, and nutrition was also not a priority theme. This is different under the second phase of 2SCALE! Not just for M&E purposes, but also to trigger our business champions to develop (even) more nutritious food products, in 2020 we developed a targeted approach to further strengthen the attention on nutrition. Firstly, we developed a dedicated business strategy for nutrition and related training, starting with the need for more nutritious food products but also the business case for it. This strategy was used as a basis to train the entire 2SCALE team in 2020. Did you for instance know that \$1 investment in nutrition has a return of \$16? Based on a variety of best practices we've seen from different companies and programs, the nutrition business strategy focused around product development, product-market fit and marketing & behavioural change for a variety of nutritious food products based on

(bio)fortification, crop diversification, shelf life extension or other nutrition-enhancing approaches. Secondly, based on Access to Nutrition Index (ATNI)'s Nutrition Business Monitor, we developed a self-assessment for our business champions. This does not only give the program valuable information on perceptions and maturity of business champions on nutrition, but also gives the business champions themselves a better perspective on how they can further work on making their products more nutritious. These assessments were also followed-up with 1-on-1 advisory sessions with the business champions.

The power of biofortification

Organizations like HarvestPlus, GAIN, IITA and others are already working for some time on the development of biofortified crop varieties. Biofortification is the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or modern biotechnology. One of the key challenges for different initiatives with biofortified crops is the commercial uptake of these varieties with farmers and processors. Under different partnerships, 2SCALE is working with business champions to improve the commercial uptake of biofortified crops. In Kenya, business champion Tegemeo enterprises is teaming up with 2SCALE to introduce biofortified varieties of pearl millet with 20.000 smallholder farmers. 200 farmers are carrying out community seed multiplication of biofortified pearl millet to ensure sufficient supply of seeds. Tegemeo also works with 2SCALE to develop affordable flour products based on biofortified pearl millet for an initial 10.000

BoP consumers. In Nigeria, 2SCALE has partnered up with Cato Foods, a company that is steadily growing its base of vitamin A biofortified cassava that it sources from local farmers for processing. There are more partnerships like this in the 2SCALE portfolio, and we hope to further grow the introduction of biofortified varieties under different partnerships, as we believe this can be a very cost-effective way of improving the nutritional value of the food products that our business champions sell.

Big steps towards reaching 1 million BoP consumers

Next to these specific examples on biofortification, we're making big steps on reaching 1 million BoP consumers across our partnerships. With the 2SCALE partnership portfolio almost complete we see that over 70% of our partnerships have an explicit focus on reaching BoP consumers. And under all these partnerships, we have dedicated approaches to improve product development, marketing and distribution for and towards

BoP consumers. 2020 was not an easy year for this as effective marketing, sales and distribution for a considerable part relies on face-to-face interaction. Nevertheless, our business champions realized interesting results in 2020.

For instance in Ghana, under the sorghum partnership with business champion Faranaya, we supported small scale female processors to set up a woman led micro-distribution model to schools and nearby communities around Garu, making use of tricycles and other transport means. The women produce, distribute and sell a fermented sorghum drink called "Zomkom" to low income communities and school children. Next to Zomkom, the micro-distributors are also testing the sales of other sorghum based products to diversify their offering and increase their income. The operating model of the micro-distribution network is further strengthened by a structure where established business hubs, run by business leads, supply the



micro-distributors with products and also provide additional training and product information.

In Mali, under the dairy partnership with business champion Translait, we supported the company in gathering consumer insights and translating this into a marketing strategy to reach the urban BoP consumer in and around Bamako with nutritious dairy products. One of the outcomes of the strategy was the need for Translait to have a better visibility in the market and a more uniform way of presenting their products. To work on this, together with Translait we worked on a new visual identity, incorporating the different insights from the consumer study. Across 2020, we worked with Translait to incorporate this new visual identity across their product portfolio and marketing materials. The new visual identity will help the 180 resellers connected with Translait, and the 48 kiosks that sell the dairy products across Bamako, to stand out from the competition and more effectively offer their products to urban BoP consumers.

Digital innovations in marketing

One thing we learned through the COVID-19 pandemic is that digitization is here to stay. Even though we have to be careful of the current potential of digital marketing in reaching BoP consumers (considering high levels of digital illiteracy and lack of access to (smart) phones), it holds a lot of potential for the future. Already ahead of the pandemic, this potential was acknowledged by 2SCALE and led to first pilots using digital innovations for marketing across 2020. Early 2020, with business champion Mhogo

Foods under the cassava partnership in Kenya, we started experimenting with digital consumer engagement opportunities. We tested different approaches, such as Mhogo Foods product advertisements through free wifi provided in different matatu's (mini-buses) across Nairobi, and the use of (digital) loyalty cards and coupons to trigger repeat purchases and loyalty with customers. In Nigeria, we teamed up with Every1Mobile to test digital marketing through their NaijaCare application, testing digital marketing and sales for nutritious porridges via pharmacies and their marketing channels. Through these tests in early 2020 we learned a great deal on the do's and also the don'ts around digital marketing, and this is providing a good foundation for further roll-out of digital marketing.

Also during the pandemic, we used digital engagement methods to gather consumer insights in times where direct engagement with consumers is severely restricted. In Burkina for the groundnut partnership with Innofaso, we gathered consumer insights on their new food products through making use of WhatsApp-based chatbots, allowing for a cheap and easily accessible way to get feedback on products from hundreds of consumers. In Nigeria we teamed up with digital innovator Viamo to gather similar consumer insights on the consumption of cassava products for the cassava partnerships with business champions Cato Food and Promise Point. These digital engagements prevented further delay of implementation of marketing activities, and offered valuable insights in the potential future use of digital customer research tools.

Who is the BoP consumer?

Not many holistic food security programs like 2SCALE have a specific focus on BoP consumers. There is little experience with how to best define BoP consumers. In the first half of 2020 we further refined the concept of BoP consumer in the 2SCALE context and used this to further refine our M&E approach.

In 2SCALE we see BoP consumers as buyers of food with low incomes, earning less than \$8,44 a day at Purchasing Power Parity (PPP) and they have constrained access to goods and services. This definition is in line with similar definitions used by institutes like the World Bank. In different country contexts, \$8,44 a day does not sound like a very low income, but this is at (2018) Purchasing Power Parity. So \$8,44 a day at PPP is around 84 Ethiopian birr, which at current exchange rates is about \$2,10. In other words, it's not that easy to pinpoint the exact income threshold for defining BoP consumers. However, this \$8,44 a day does give 2SCALE an internationally accepted guideline to work with. As a multi-country program, it also helps us to measure a universal indicator in 8 different countries, contextualized through World Bank's purchasing power parity conversion factors.

Of course, in our 2SCALE work towards BoP consumers, we are not limiting ourselves to income thresholds. We are also looking at literacy, schooling, access to transport and communication means, and other factors. And most importantly, we are mainly interested in their consumer behaviour and consumption patterns and preferences, as these are the most important building blocks for effective marketing approaches.



5. Innovation as a green catalyst

In line with the Dutch government's targets on eco-efficient production, 2SCALE has set the goal to have 375,000 hectares under eco-efficient production across its partnership portfolio by the end of 2023. Innovation plays a key role in this and we are working on two pathways to achieve that goal. One pathway is for farmers to adopt improved and innovative production practices as well as products and technologies that can support this. A second pathway is the introduction of digital innovations. Digital for Agriculture (D4Ag) is increasingly identified by many organizations to be an important field of work for boosting market efficiencies and increasing the productivity of farmers and SMEs. However, to deliver on that promise much effort is still needed, and the potential widening of the digital divide* and high levels of digital illiteracy among farmers are risks that are taken serious

by 2SCALE. Nevertheless, we believe the potential of digital innovations should not be left untapped. In total, 2SCALE intends to successfully introduce 50 innovations to actors in the program.

Farmer facing green innovations

Already initiated under the first phase of the program and further extended to different partnerships as of 2019, 2SCALE has been introducing more sustainable farming practices across its partnerships. The main approaches to this are integrated soil fertility management (ISFM) and integrated pest management (IPM).

IPM is a consolidated approach to pest management that relies on the use of multiple pest control mechanisms to achieve optimal results with less impact on the environment. ISFM is an eco-efficient practice that improves

Drone-supported application of Aflasafe to groundnuts in Burkina Faso



soil nutrient management for sustainable productivity enhancement. It helps revitalize degraded lands and makes soils more resilient to climatic extremes. Partly together with different input providers, in the past two years 2SCALE has trained thousands of farmers on ISFM and IPM. Another key component in this work with farmers under the different partnerships is the introduction of improved inputs, mostly notably improved seeds. Under a variety of partnerships, 2SCALE worked with seed companies to introduce and train farmers on the application of improved, climate resilient seed varieties for crops like sorghum, maize and a variety of vegetable crops.

Below we provide a snapshot of different innovations that help our farmers produce more eco-efficient:

Mali

In Mali, urea deep placement (UDP) demonstration plots were established in Segou under the rice partnership with Siguida Yeleen. The same was done in Burkina under the rice partnership with Nebnooma. UDP practices help to improve fertilizer application and uptake, and have the potential to reduce the use of fertilizer by 30-50%.

Ghana **Ethiopia**

In Ghana, under the sorghum partnership with Faranaya, fertilizer micro-dosing training was delivered to more than 3,400 farmers (of which 55% women). Similar training was held under the sorghum partnership in Ethiopia.

Nigeria

In Nigeria, organic (foliar) fertilizers were introduced to onion farmers, and with business champion Tays Foods, drip irrigation was provided to farmers for more efficient use of irrigation water.

Ghana

In Ghana, 2SCALE supported the scaling of two innovations, Drycards and Aflasafe, that were already introduced to different partnerships in 2019. Whereas Drycards is a cost-effective solution to measure moisture content, Aflasafe is a natural product that can cut aflatoxin levels in maize and groundnuts by 80% to 100%. Nearly a thousand farmers were introduced to the use of Drycards through community level trainings and radio campaign sensitization.

Kenya

In collaboration with the Soybean Innovation Lab (SIL), 2SCALE supported the introduction of affordable multi-crop threshers under the soybean partnerships in Kenya with business champions Equatorial Nuts Processing (ENP) and Prosoya. Also, a frugal moisture meter, GrainMate, was introduced to support aggregators to determine moisture content. Both interventions support the reduction of post-harvest losses in soybeans.

Ethiopia

In Ethiopia, 2SCALE supported the purchase of over 33,000 Purdue Improved Crop Storage (PICS) bags by farmers under the beans partnership with business champion Ras Gaint. PICS bags allow for improved storage of beans, so that post-harvest losses during storage and transport are minimized.

Doubling down on digital

In 2019, 2SCALE already made a big step in it's digital agenda by hosting the digital innovation challenge. From this challenge, the 20 most promising digital innovations were invited to pitch to all 2SCALE partnerships, which eventually led to 8 new collaborations with digital service providers.

These collaborations were kickstarted across 2020 through individual pilots. One example of such a pilot is with Arinifu, who provide

a digital solution to measure optimum temperature and humidity conditions for chicks to thrive in brooding houses. It uses SMS alerts and backend analytics to save farmers' cost and time. A successful pilot was implemented under the poultry partnership with Homerange in Kenya. 21,000 chicks were successfully raised in housing equipped with Arinifu devices with the business reporting a 20% reduction in feed cost, a 42% reduction in electricity cost, and staff used 70% less time monitoring the chicks. Perhaps the biggest result was a serious drop in the mortality rate of day old chicks.

Another example is mDairy, a mobile phone application for dairy farmers in Nigeria. The app provides dairy farmers with information about best dairy practices, allows easy record keeping, and also provides surveys, analytics and reporting capabilities to offtakers working with dairy farmers. In a pilot with FrieslandCampina WAMCO under the dairy partnership, 43 community livestock workers and milk collection officers were onboarded to the application. They work on digitizing profiles for 500 smallholder dairy farmers to offer them additional services. The pilot is still ongoing at the end of 2020.

In addition to these new pilots, in 2020 we also worked on scaling pilots initiated in 2019. Following pilots initiated in 2019 under two Nigerian partnerships with Ignitia's weather forecasting services, we supported the replication to three other partnerships in 2020, the rice partnership in Mali and the maize & sorghum partnerships in Ghana. 95% of farmers involved in these replication pilots, indicated to be very satisfied with the service provided, allowing them to make better farm decisions leading to increased yields.

Digital in a COVID era

If there's one potentially positive result of COVID-19, it's the push by agribusiness SMEs to digitize their operations. In light of the Community of Practices on digitization as response to COVID-19 (see also chapter 1) together with Food & Business Knowledge Platform, 2SCALE organized a [series of webinars](#) over summer focused on digitization, with guest speakers from Agri-Wallet, ICCO Cooperation, Solidaridad, Vandersat and Financial Access. With a total of over 200 participants and very positive feedback, this series was a great opportunity for 2SCALE to spark a broader discussion about digitization.

Nigeria

Similar to Ethiopia, also in Nigeria 2SCALE aims to reach large numbers. Also, in Nigeria, the portfolio currently constitutes 10 partnerships. With 4 partnerships categorized as staple partnerships (maize, cassava and sorghum) the portfolio also counts 2 dairy partnerships and furthermore covers vegetables (including plantain), groundnuts and oil palm. With 2 multinationals in the portfolio (Nestle and FrieslandCampina/WAMCO) the majority of the portfolio is driven by local SMEs, including companies like Cato Foods, Crystal Dominion and Okomu. The current target is to reach 96.690 smallholder farmers and 200.000 BoP consumer across the portfolio, and introduce at least 17 green innovations.

Next to that, 2020 also saw an increasing number of business champions adopt more digital approaches in response to COVID-19. In Kenya, under the groundnut and soybean partnership, business champions embraced digital-enabled agro-extension services and curated agricultural information into audio and video files that were disseminated through radio, TV, and IVR (Interactive Voice Response). In just two weeks, already 6,500 new smallholder farmers were reached, eager to supply the business champions with groundnut and soybeans. Also in Kenya, the service provider Kuza quickly developed

a service called "Corona Warrior, aimed at raising awareness with farmers about COVID-19. This also helped raise its profile with 1900 smallholder farmers, of which 1200 were interested in learning how to grow groundnuts for business champion Batian. In Burkina Faso, under the cassava partnership, business champion Nanalim started using WhatsApp chatbots to perform consumer surveys, which could not be done face-to-face. Results of the study informed Nanalim that 59% of BoP consumers surveyed did not know about their product. Insights from the study led to the re-design of marketing activities.

A sorghum farmer inspecting her crops in Northern Ghana



