



2020 Highlights and Performance

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Introduction

Making a difference: A letter from the Executive Director

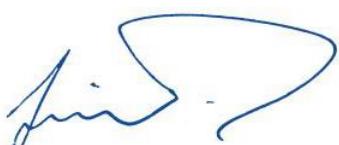
Welcome to our review of highlights and performance in 2020. This is the second such report using our Performance Measurement system. Compared with the [first edition](#), it takes a big step forward both in the breadth and depth of reporting. My thanks go to the many people in our team and at partner organizations who have made this possible.

For most of 2020, the major question for the Syngenta Foundation, as for everyone else in the development sector, was how best to support our beneficiaries despite COVID-19. I'm happy to report that we maintained essentially all our activities. In fact, we moved ahead: The adaptability and enormous personal commitment of our local teams and partners enabled more smallholders and rural entrepreneurs to benefit from our activities than before the pandemic. And I mean many more: the number of farmers involved rose by two-thirds, that of businesses by almost half. The following pages provide details.

This is not to pretend that we simply shrugged COVID off. We very sadly lost present and former colleagues to the virus, and we all know people who were taken ill. Priorities often had to change. Some work took longer than intended. Some planned initiatives and partnerships were delayed. Although this may not be apparent from the report, COVID also made it harder to gather field data. These and other local challenges continue in 2021.

Looking beyond COVID, however: What's different about this report? It covers several topics in more depth than its predecessor, notably in Seeds and R&D. It also examines additional indicators. We have started systematically recording how many women benefit from our activities, as we push ahead purposefully with our diversity and inclusion agenda. We now track the number and reach of capacity-building events. In parallel, we've improved the quality of data and the tools to collect them. We intend our next report to be even better. And we look forward to exchanging and collaborating with others towards more standardised ways of measuring performance and results across our sector. This process mirrors, charts and supports the introduction of our new strategy in 2021, and the progress that it maps out between now and 2025. You'll find more about that on our website.

I hope that you enjoy reading this report, and look forward to your comments.



Simon Winter
Executive Director
July 2021

Our vision

A bright future for smallholder farming

Our mission

To strengthen smallholder farming and food systems, we catalyze market development and delivery of innovations, while building capacity across the public and private sectors.



How we work

Delivering on our commitments



There is not one single solution to the complex challenge's smallholder farmers face. At SFSA we take a multisectoral approach that encompasses key needs across the whole farming system. SFSA works with a wide range of partners. Together we develop self-sustaining business models in agricultural insurance and finance (Agricultural Insurance Solutions, AIS), demand-led access to improved, appropriate and commercialized crop varieties (Seeds2B) and primarily youth-based agri-entrepreneurship solutions to engage low income smallholders in accessing technologies, services and markets (Agriservices). To support this work, we innovate, build capacities, develop policy recommendations, mobilize resources and promote excellence.

Strategic refresh sharpens our focus

In 2020-21, SFSA has been refreshing its strategy. A separate set of documents describes our way forward through 2025 and the thinking behind it.

With our extensive experience in smallholder farming and businesses, we identified three key outcome areas: delivering appropriate tools to smallholders, supporting them in tackling climate change, and enabling them to benefit from flourishing markets.

Progress in each of these areas contributes to our impact and helps achieve our vision. Positive impact stems from smallholders' increased use of solutions that cope better with climate change, incorporate the needs of women and youth, produce more nutritious food and profitably meet evolving consumer demand in efficient markets.



Appropriate tools



Climate change resilience



Thriving markets

Outcome 1: Smallholders get the tools they need

SFSA promotes better access and choice of affordable solutions to low income farmers. We put farmers at the center of agri-food systems. This ensures that the solutions and services we promote are workable, scalable, and address priorities, and create economic, social and environmental benefits. Accessing new technologies without proper support and know-how is inefficient and often results in failure. Therefore, hand in hand with better accessibility to solutions, smallholders require better services and more effective ways (e.g. digitalization) to access, advice and advocacy services. We believe it is crucial that innovations at the farm level will be complemented by improved services to farmers (e.g. extension, forecasts, advisories).

Importantly, solutions and services need to come from a coordinated action across private, public, and civil society spheres. They are based on scalable business models that work for smallholders and the businesses in the surrounding market system. This is essential for financial growth and sustainability. Likewise, strengthened multi-stakeholder mechanisms (initiatives, partnerships, platforms) are crucial to enabling scalable models to reach tipping points. These points are where market players continue to scale solutions and services without further external support (see our separate paper on scaling). Reinforced relevant multi-stakeholder investments, sourced from public, private and international cooperation agencies, will accelerate widespread scaling up.

In 2020, through our programs and partners, we reached more than 871,000 smallholders.

By “reach”, we mean transferring know-how and providing access to a wide choice of affordable, sustainable solutions and services. These solutions cover a wide range of technologies and innovations. They include improved seed varieties, good agronomical practices, mechanization, and digital tools.

Outcome 2: Smallholders cope well with climate change

There is an urgent need to both mitigate the effect of agriculture on global warming and increase the resilience of farming systems to climate change. SFSA has started to integrate Climate-Smart, Resilient Agriculture (CSRA) approaches across its entire portfolio. Key aspects are as follows:

Increasing farmers' resilience and capability to adapt to climate shocks requires appropriate risk mitigation strategies and tools. Adaptation can include measures that reduce the risk of crop failures as well as interventions to reduce the financial consequences. Resilience benefits must be combined with economic incentives and a robust value proposition for farmers and the value chain. These can come, for example, from increased productivity, decreased costs of production, access to more remunerative value chains or other factors. It is also essential to promote these benefits and thus increase farmers' willingness to adopt such interventions. Mitigation in the context of climate change often refers only to the reduction and/or removal of greenhouse gas emissions. However, agricultural activities also affect the environment in other ways. Our CSRA mitigation pillar will therefore go beyond emissions and take a more holistic approach, matched to local context. The combination of climate-friendly technological innovation with institutional or market innovations is pivotal for success. Strengthened capacity for CSRA innovation and delivery in relevant institutions or markets is key for driving positive, systemic change. New market incentives for sustainability, and supportive policy instruments that impact behaviors, will move systems towards sustainable transformation.

Outcome 3: Smallholders benefit from thriving markets

SFSA plays a key role in supporting the creation of rural enterprises and boosting existing ones. SFSA wants competitive businesses to engage with smallholders, providing them with access to a choice of affordable solutions for their needs, as well as better opportunities to market their produce. These businesses include large insurance firms, medium-sized seed companies, small off-takers, distributors and retailers.

To support the agricultural value chain, SFSA maps and analyses key fragility points in food systems. We then elaborate strategies to tackle these. Our aim is above all to increase smallholders' resilience and future success. Policy engagement (see p. 17) and capacity-building form key parts of our approach here.

In 2020, SFSA supported more than 4400 farming enterprises, an increase of 46% over 2019. Together these businesses created over \$29.4m in sales value. That was 24% more than in 2019 – despite all the challenges of COVID-19.

Where we work and how many farmers we reached in 2020

SFSA works with partners worldwide. Our programs run in Africa and Asia, where we see great challenges as well as numerous opportunities for growth and development.

Well-established teams on both continents ensure locally relevant activities. In Africa, our teams are based in Mali, Senegal, Nigeria and Kenya. Our Asian teams operate in India, Bangladesh, Indonesia, the Mekong region and China. The Foundation's head office is in Switzerland. Through partners, we are also involved in activities in further countries. Examples include R&D work in Ethiopia and Uganda. Numerous African universities participate in the Demand-Led Breeding program. Our Seeds2B team works through partners in several African countries, for example on the PASTTA, AVISA and Seeds for Impact programs. Our AIS programs include agricultural insurance in Sudan. Such partnerships are likely to increase. We strongly support 'south-south' collaboration.

In green: Program involvement through partners

In yellow: SFSA Country & Regional teams



2020 overall highlights by sub-portfolio

Agriservices

SFSA aims to improve access, affordability and delivery of innovations to smallholders. This is the core focus of our Agriservices sub-portfolio and its entrepreneurial Agriservice Centers (ASC¹). These give under-served communities multiple new opportunities for improvements in farming and income.

In 2020, 4,174 ASCs linked more than 631,000 smallholders to innovative technologies, market opportunities, consulting and training. Despite COVID-19 restrictions and other challenges in SFSA countries, the number of ASCs increase by almost half (+47%). 1335 new ASCs were created. About half of these are in India, made possible by the Agri-Entrepreneur Growth Foundation (AEGF²). Agriservices also increased the number and diversity of services and products offered to farmers in other countries.

Focus: Farmer support, organization, and entrepreneurship. The Agriservices team has developed business models – Entrepreneurial Agriservices Centers – to help smallholders access a range of products and services for better harvests and higher income. The business models are based on empowering rural entrepreneurs to meet the needs of their farming neighbors.

As noted above, they generated more than \$24m in sales of SFSA-supported products, greatly contributing to the local economy. On average, 18% of ASC owners are women. (For regional data, see appendix tables). We aim to raise this figure significantly over the next few years.

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* Farmers reached = Farmers using SFSA-supported services during 2020

** Businesses = Agriservice Centers (ASC) active in 2020. Those are primarily Farmers' Hubs, Agri-Entrepreneurs and CEMA mechanization centers facilitating access to SFSA-supported products.

SPs= Supported products or services

*** Product = Innovations in digital tools, mechanization, farming practices, post-harvest, nursery practices and livestock services. Cumulative figures since 2019. +78% in 2020.

Our Agriservices team also improves farmers' agricultural skills and builds capacity in other parts of the food value chain. In 2020, we provided or enabled some 559 capacity-building activities. The primary beneficiaries were smallholders and young rural entrepreneurs. Field days focused on farmer information, training in good agronomic practices and climate-smart resilient agriculture. ASC owners benefited from intensive training in entrepreneurial and business skills. (Our recent review of 2018-20 work in China provides examples³).

2020
**559 capacity-
building
activities**

Climate-smart resilient agriculture forms an international pillar of SFSA's refreshed strategy. As well as training, numerous Agriservices initiatives are tackling this crucial topic directly and practically. Some examples described in more detail on our website include:

- Water-Efficient Technologies in Bangladesh, to reduce groundwater withdrawal for farming.
- Solar pump technology in Senegal for saving water and reducing fuel emissions.
- Seedling trees production by Indonesian ASC, enabling local afforestation.
- Soil-testing technologies in Kenya to improve soil fertility management, water-use efficiency and agricultural productivity.



How farmers view our impact

Smallholders in many countries lack access to advice, input and output markets and other elements of successful agriculture. Farmers' Hubs are a solution to this problem. In 2020, our 'Lean Data' survey investigated Hubs' impact on the smallholders they serve in Bangladesh ([Full report available here](#)).

The farmers are highly satisfied with Hub services. Reasons include the new tools and technologies and good results in the field. 78% of farmers reported that they were now earning more money from their crops, and their quality of life had improved. The surveyed farmers cultivate an average of one acre; 40% of the land cultivated used Farmers' Hubs products in 2020. The crops involved brought in about half of household income.

This survey also allows to collect farmers suggestion on how to improve the current services. In 2021, we are running a similar study in Indonesia.

Farmers' voices:

"My income has increased. I have been able to increase cultivation of other crops."

"My main source of income is from cultivating and selling bottle gourd. Before, I was not financially solvent at all due to insufficient production of bottle gourd. But now I always have money for my daily expenses."

Seeds2B

Seeds2B supports the delivery of improved seeds by strengthening market mechanisms and value chains. We help local seed companies expand their portfolios through partnerships that deliver public and private breeders' improved varieties to the market.

In 2020, 186 SFSA-associated seed companies, breeders and other public and private bodies generated sales of more than \$4.6m across several countries in Asia and Africa. This figure was 40% higher than in 2019. Despite many restrictions related to the pandemic, more than 59,000 smallholders accessed improved seed varieties which represent 90% increase than in previous year.

Focus: Enabling local companies to grow by offering smallholders a better choice of high-quality seeds. We invest in plant breeding and technology transfer to raise yields and diversify cropping systems, thus improving smallholders' incomes and resilience.



Field day, co-hosted with FtF Soybean Innovation Lab - Malawi

2020
7200 field day participants

A central element of our Seeds2B sub-portfolio is building capacity at a wide range of organizations in the seed system. These include CGIAR centres, NARS and private companies. Policy work forms another strong pillar (see page 17). Our local teams again led or supported numerous capacity-building activities in 2020. They engaged there, for example, with more than 900 seed company employees, breeders, scientists and journalists. Most importantly, Seeds2B capacity-building events reached a large number of smallholders. More than 7200 participated in SFSA-organized field days. These demonstrations enabled the smallholders to familiarise themselves with new farming technologies and the crops from high-quality seeds.



* Farmers reached = Farmers accessing SFSA-supported varieties during 2020. Assumptions based on seed volume sold (tons), planting density (metric tons/ha) and average plot size (ha)

** Businesses = Public or private seed producers and breeders facilitating access to SFSA-supported products in 2020

***SPs= Supported products (varieties) sold through seed companies

*** A "product" in Seeds2B means a group of candidate varieties targeted to a specific market. A Target Product Profile describes the target market segment, area and traits. (Cumulative figures since 2019; +8% in 2020).

In 2020, the Seeds2B team and key partners continued developing and testing candidate varieties suitable for several specific markets. To be successful, a variety must match the relevant Target Product Profile (TPP). This document lists the target market segment and locality and the traits demanded by the market. By the end of 2020, more than 90 varieties in 14 TPPs had proved their local suitability. SFSA maintains its portfolio with a flow of new TPPs and varieties. Our new handbook enables seed organizations to use our Product Life Cycle approach to commercialization (see DLB section page 16).

Seeds2B also addresses climate-smart resilient agriculture. In 2020, the Partnership for Seed Technology Transfer in Africa (PASTTA) tested numerous varieties' ability to deal better with specific local conditions than the seeds currently used. Uganda, for example, approved six drought-tolerant, disease-resistant bean varieties for sale by local companies. In India, our Affordable, Accessible, Asian ("AAA") drought-tolerant maize program helped local organizations sell 120 tons of the new hybrid TA5084. This was more than double the amount sold in 2019. TA5084 needs less water than conventional maize for similar yields. It is therefore well-suited to the drought-prone program region. Farmers who have switched to TA5084 from their previous varieties are earning about \$100/ha more per hectare. For further details, see www.syngentafoundation.org/file/17111/download.

In the Accelerated Varietal Improvement and Seed Delivery of Legumes and Cereals in Africa (AVISA) program, teams in Nigeria and Tanzania are focusing on beans, groundnut, sorghum and cowpea. More than 8000 smallholders are now accessing SFSA-supported varieties through local agri-entrepreneurs. The program includes numerous training days, with a particular emphasis on female participation.

Technical Assistance enables seed company progress

The Seeds for Impact Program (SIP) is a six-year initiative which seeks to address the challenges faced by small African seed companies. It was founded by AECF (Africa Enterprise Challenge Fund) with initial funding from AGRA (Alliance for a Green Revolution in Africa) and our Foundation. SIP addresses companies' funding gaps and provides technical assistance (TA). The companies are thus better able to produce seed for food security crops, notably from public-bred varieties. In 2020, seven companies in six countries began receiving TA. Much of this is provided by Syngenta volunteers through a Foundation-piloted Employee Engagement program. More than 80 company employees volunteered for the tasks available. Key achievements by SIP in 2020 were:

- 568 jobs sustained by the seed companies, of 340 are held by women and more than half by people aged under 35. One company shared its view of SIP on our website⁴
- Five additional crop types introduced to farmers
- More than 7100 smallholder households benefited from the seeds by earning an average extra net profit of about \$400.

Partners' voices:

"Being a [SIP] winner has opened lots of doors, including at financial institutions. We can now expand our operations and achieve our aspiration to benefit more than 1,500,000 smallholders in the next five years. SIP is a special competition, because winners get both funding and TA. That is helping us run our business in a more professional manner. At the peak of the pandemic, the funds enabled us to plan better and supply inputs to farmers at the right moment. They were able to pull in bumper harvests exactly when the market was offering premium prices." (4)

George Kabutha, Head of Finance & Administration Value Seeds Limited, Nigeria

Agricultural Insurance Solutions (AIS)

The AIS sub-portfolio focuses on farmer-centric insurance products, as well as the appropriate distribution channels and smallholder education. Our team is currently facilitating farm risk mitigation in seven countries in Asia and Africa. AIS operates as an intermediary. Working with local insurers and other stakeholders, we examine smallholders' risks and develop insurance products to meet their needs. AIS products typically cover crops against weather events such as drought, storms, floods or erratic rains.

Focus: Our AIS team works with insurance companies, regulators and other stakeholders. Together, we monitor and assess risk, and develop insurance products specifically for smallholders. These products typically cover a variety of crops against weather risks.

In 2020, 58 SFSA-associated businesses (+32%) generated more than \$771,300 in insurance premiums sales. Almost 132,500 farmers, half of them women, accessed SFSA-supported insurance products. This figure was 27% higher than in 2019.



* Farmers reached = Number of farmers purchasing SFSA-supported insurance products during 2020. In Kenya, Rwanda and Tanzania the AIS activities are operated by ACRE (Agriculture & Climate Risk Enterprise Ltd., www.acreafrica.com).

** Businesses = commercial financial institutions, farmer aggregators, insurance companies, reinsurance companies, telecom companies and microfinance institutions facilitating access to SFSA-supported insurance products in 2020

**SPs= Supported insurance products

*** Weather Index insurance for different crops. Cumulative figures since 2019 (2019:4 products, 2020: 28 products).

In 2020, our main goals were to raise smallholders' awareness of insurance, build capacity at local partners in the agri-insurance arena and to pilot commercial schemes. Challenges related to COVID-19 led to some new activities being delayed or even cancelled. However, we still made progress in various areas. Resource mobilization initiatives resulted in the signing of several agreements with key stakeholders. A major example in Bangladesh, signed with national and international partners, aims to boost risk mitigation through climate insurance for smallholders (www.syngentafoundation.org/news/recent-news/partners-sign-take-pain-out-rain). In Sudan, work continues on three projects funded by the Swiss Capacity Building Facility and the Arab Gulf Programme for Development (AGFUND). SFSA also joined a new consortium in Cambodia. This multi-stakeholder group aims to test the feasibility of a commercial insurance program using RIICE⁵ technology data.

Insurance enables farmers to invest in their harvests with greater confidence and peace of mind. However, smallholders generally have little experience with such cover. Lack of both knowledge and trust can prevent them from trying out policies that would help them spread the burden of risk. To help smallholders understand the concept and products, and manage their expectations, AIS provides extensive financial education. In 2020, our AIS team organized more than 260 capacity-building events in farming communities. A range of training and educational programs aimed to create awareness and establish well-informed demand. More than 11,000 farmers and staff from partner institutions attended these events.

2020

11000 farmers and staff from partner institutions participated in numerous capacity-building events



Financial education – Sudan

Climate insurance gives farmers new hope

Worldwide, Bangladesh is rated the country at 7th-greatest risk from climate change. Deteriorating climatic conditions and more extreme weather events are a huge concern there. Smallholders have very few ways of reducing their farming risks. Our AIS climate insurance offers a new solution. We ran three pilot projects in 2020. 7875 farmers received a total pay-out of \$6000 for potato late blight. Seeing that insurance really does provide compensation is an important part of trust-building. However, the cover does not come in isolation. Participating smallholders also receive weather forecasts and agricultural advice. These services combined with insurance give the farmers greater confidence in their crop production. A survey showed that the advice helps farmers to match the timing of irrigation, crop monitoring and protection as well as fertilizer application better to the weather.

Farmers' voices:

“I realize how crop insurance stands besides us; to me, crop insurance is the name of hope for the farmers” - Shefali Rani (38), Bogura, Bangladesh

Research and Development

Focus: Our R&D work helps identify, develop and demonstrate innovations that can add value for smallholders and the innovators. We encourage greater private sector participation in crops, technologies and practices that are affordable and remunerative for smallholders. The R&D team feeds innovations into the sub-portfolios described above.

Major current initiatives

Tropical Potato – Potatoes are an attractive crop for smallholders, both for home consumption and sale. High yield potential per area, short growing seasons and rising demand provide promising income opportunities. However, elite potato varieties are often not adapted to tropical conditions. This limits their production to temperate highland regions. The SFSA-led tropical potato breeding initiative aims to solve this problem. It focuses on crossing high-yielding European commercial varieties with heat-tolerant, tropical varieties from the International Potato Center. The aim is to produce new tropically adapted processing and table potato varieties. In 2020, two table potato varieties from this partnership met the 16-point Target Product Profile. Breeding work continues on processing varieties. Further improvement is needed in sugar and dry matter content. Initial results look encouraging.

Cassava Seed Systems – SFSA works in partnership with researchers in Uganda and Brazil to develop innovations in cassava planting material. The crop is a key staple in several African countries. Very low multiplication efficiency, however, massively slows down the production of clean planting material and hence the release of improved cultivars. In 2019, the SFSA MandiPlus initiative proved the benefits of shorter, treated cassava seed pieces compared to those in conventional use⁶. Appropriate treatment of the pieces protects cassava well against soil-borne pests and diseases. In 2020, field trials in Brazil indicated superior yields and improved pest and disease control with the MandiPlus formulation. These advantages were apparent in a wide range of environments and varieties. The findings led to a joint decision by the Brazilian national research organization EMBRAPA, Syngenta and SFSA to apply for MandiPlus registration in Brazil. In parallel, trials in Malawi, Tanzania and Uganda confirmed excellent control of whiteflies, a major carrier of cassava viruses. These trials will now be expanded to include seed entrepreneurs in all three countries.

Tef – The goal of this R&D initiative is to improve the productivity and agronomy of Ethiopia's main cereal crop. Our partnership with researchers in Ethiopia (EIAR) and Switzerland (University of Bern) has led to the development of new varieties. These address two major problems for the crop: susceptibility to 'lodging' (falling over) and drought. In 2020, following previous release of two lodging-tolerant varieties, the program released a drought-tolerant variety. All three display significant yield improvements (>50%) compared with traditionally used tef. These varieties are now being delivered to Ethiopian smallholders, both via EIAR and local seed companies. We estimate that about 24,600 farmers planted several of EIARs tef varieties (including the three resulted from this project) on more than 12,200 hectares last year. The number of farmers benefitting duplicate since 2019.

6. <https://journals.plos.org/plosone/article/authors?id=10.1371/journal.pone.0229943>

Soil Health – There are many possible approaches to improving soil health. However, they are often not adopted by smallholders, thus limiting the benefits for the environment and farming resilience. A major barrier is that farmers rarely gain immediate financial advantages. We are therefore focusing on potential incentive mechanisms to bridge the gap between immediate and long-term benefits. A 2020 paper describes our thinking in more detail⁷. SFSA has identified three areas for intervention. These are the market-led introduction of rotation crops⁸, packages of value-creating solutions (e.g. soil diagnostics and appropriate inputs) and incentive systems for soil amendments. The latter two areas have led to work with our strategic partners One Acre Fund and The Nature Conservancy. This is described in the Partnerships section below.

International Wheat Yield Partnership (IWYP) – Wheat is a crucial crop for global food security. To keep pace with demand, yield gains need to accelerate markedly. In the IWYP, we helped bring together public and private partners from around the world. Their aim is to achieve a 50% increase in the yield potential of spring and winter wheat by 2030. That would double the current rate of genetic gain. International investment of more than \$50m stimulates trait identification at several academic institutions, together with pre-breeding at CIMMYT which feeds lines into public and private breeding hubs. Outputs from the IWYP program will be contributing to CGIAR's Crops to End Hunger Initiative, with Seeds2B as an anticipated delivery partner. For details of progress in 2020, see <https://iwyp.org/annual-report/>. Since 2015, IWYP has achieved 10-25% yield improvements in more than 30 environments. Future genetic gains are expected through novel mapping of plant yield pathways. IWYP has already identified and phenotyped about 140 contributing genes. Identification of markers for these genes enables more targeted breeding in the future. As a result of promising progress, both USAID and the private sector have substantially increased their contributions to the partnership. IWYP can thus further extend its breeding activities.

Demand-Led Breeding – For smallholders to benefit, breeders need to develop varieties that match market requirements. We work with leading African universities and breeding professionals who train future plant scientists in 'demand-led' breeding (DLB⁹). A pillar of the DLB initiative is to promote best practices in plant variety design, education and training.

In 2020, DLB developed product profiles that identify priority traits required by organizations along crop value chains. A "Practitioners Guide On-line Launch" event in August provided guidelines and supporting material. A virtual DLB Community of Practice has now been established. Its members are some 400 plant breeders, 120 of them women, in African National Agricultural Research Systems. To help further professional development, the Community will deliver new resource materials and professional opportunities use a range of channels. Several African universities have formally incorporated DLB approaches into their postgraduate programs. They include the Universities of Ghana, KwaZulu Natal and Nairobi. The DLB team continues to create further educational material and tackle new topics for postgraduate programs.

In 2020, the Australian Centre for International Agricultural Research and the Crawford Fund, co-founders of the DLB project, extended their Memorandum of Understanding until 2027. Their Alliance for Agricultural Research and Development for Food Security will continue supporting research and capacity-building. It also plans new programs supporting sustainable farming practices and innovation. The University of Queensland manages the DLB program on behalf of the Alliance partners.

7. <https://www.frontiersin.org/articles/10.3389/fsufs.2020.576606/full>

8. https://www.syngentafoundation.org/sites/g/files/zhg576/f/2020/04/08/rotation_crops_for_cereal_farmers_0.pdf

9. <https://www.demandledbreeding.org/>

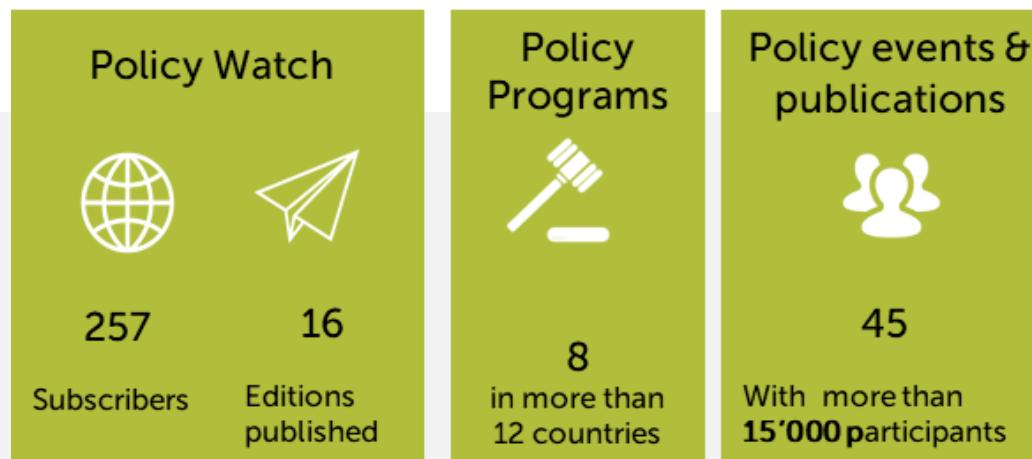
Policy Research and Advocacy

Focus: Improving the “enabling environment” for smallholder farming and related businesses. The Policy team supports SFSA’s work on agriservices, insurance and seeds. We increasingly also explore Foundation-wide topics such as rural youth entrepreneurship, climate-smart resilient agriculture, nutrition and market systems.

In 2020, we were engaged in eight policy programs across more than a dozen countries in Asia and Africa. Our overarching aim is to improve the policy and regulatory environment for smallholder agriculture. We do so by providing evidence-based options and recommendations to policymakers and key stakeholders, supported by targeted advocacy. An example of our policy research in China is included in the section below on Strategic Partnerships.

In April 2020, we launched the SFSA *Policy Watch*. This now monthly newsletter helps our teams, partners and other readers navigate topics such as COVID-19 effects on agriculture and local policy responses. Our aims with the newsletter are to synthesize information and insights, create an opportunity for international learning and sharing and to help develop recommendations. As of early 2021, more than 250 subscribers have signed up. The newsletter continues to evolve and cover relevant new subjects. If you would like to receive our *Policy Watch*, please subscribe via the link below¹⁰.

SFSA and partners ran a major study of agricultural innovation in China, India and Israel. The main findings and advice were published by Springer early in 2021. (From Food Scarcity to Surplus: Innovations in Indian, Chinese and Israeli Agriculture¹¹ by Gulati, Zhou, Huang, Tal & Juneja). The book illustrates the role of innovations in addressing agricultural challenges, and charts three very different success stories.



SFSA also contributed to numerous policy events (mainly online in 2020), exchanging with policymakers and other stakeholders. In October, for example, SFSA and the International Food Policy Research Institute (IFPRI) co-hosted a webinar on [“Youth Entrepreneurship in Farm Value Chains and Rural Development”](#). Speakers discussed key insights from our recent research with IFPRI in [Nigeria](#) as well as from Bangladesh and India.

As well as the book mentioned here and the papers in our R&D section, SFSA staff were again involved in several publications in 2020. Further information is available via www.syngentafoundation.org/books-papers.

10. <https://bit.ly/2C9NQBt>

11. <https://www.springer.com/in/book/9789811594830>

Strategic Partnerships

Focus: SFSA is primarily an implementing foundation. However, we also support selected organizations as funding and/or implementation partners. Our goal is to co-create and/or co-finance, develop and scale solutions for smallholder agriculture and climate-resilience. This section provides three major examples.

The Nature Conservancy (TNC¹²) -

Our strategic partnership with TNC covers work in Kenya and China. We aim to expand activities to India soon. In Kenya, the partnership involves two separate projects benefiting some 3000 farmers in 2020. The “Upper Tana Agriculture Program” aims to build and verify a value proposition for agronomic measures that support sustainable intensification of irrigated highland farming systems in Central Kenya. The work builds on TNC’s Upper Tana Water Fund. The partners have developed and tested combinations of water harvesting solutions, soil diagnostics, input supply chain links and extension as packages for smallholders. The recently completed first phase shows promising results. Productivity of beans, maize and tomatoes on 17 reference farms rose by 95%, 30% and 19% respectively. These increases substantially improved smallholders’ profitability. Phase 2 is now raising the quality of extension services, building stronger links with input suppliers (especially fertilizer blenders) and produce-buyers. The second project is devoted to dryland farming systems in northern Kenya. “Sustainable Agricultural Intensification and Land Management in Laikipia” aims to evaluate the environmental footprint, mitigation potential, long-term profitability and resilience of diverse farming systems in dry conditions. First results are expected in 2021. We hope they will help us understand better how to assess farming systems’ “climate-smartness” in specific contexts.

In China, TNC and we have been studying soil health and the efficiency of agriculture resource use since 2019. Our aim is to better understand Chinese policies on “Green Agriculture” development, focusing particularly on governmental subsidies. Our main local partner is the Research Center for Rural Economy, part of the Ministry of Agriculture and Rural Affairs. In 2020, we completed the first stage of the project. This included finalizing a review of China’s Green Agriculture policies and subsidies. The team is now conducting in-depth studies of two specific subsidy policies in several provinces

Combined measures raise yields of different crops by 19-95%

TechnoServe (TNS¹³) -

The YieldWise project in Nigeria, co-funded by the Rockefeller Foundation and SFSA, has two related objectives. It aims to halve tomato farmers’ post-harvest losses and raise their income by 50%. Training, market linkages, use of technology and easier access to finance all contribute.

Since 2017, almost 38,000 smallholders have received training on good agricultural practices and post-harvest loss reduction. The farmers are encouraged to extend the training to other members of their households and farm labourers. In 2020, TNS facilitated the formation of a further “cottage” processors’ association and helped existing ones to obtain certification and expand their activities. The project team has also identified ten potential providers of financial services to smallholders. In 2020, we also explored possibilities for increasing smallholders’ uptake of agricultural insurance. Suitable training materials, community meetings and information campaigns should help stimulate interest and begin to build trust. For further information on the importance of smallholder risk management, see our AIS section above.

2020
7556 farmers trained (15% women); \$400 more income per farmer

12. <https://www.nature.org/en-us/>
13. <https://www.technoserve.org/>

The One Acre Fund (1AF¹⁴) - Focus areas of our strategic collaboration with One Acre Fund include seed systems and soil health. Likewise, key partnership activities with our Insurance team included in house capacity building particularly in product design and innovation and weather data management in Rwanda, Zambia and Tanzania. In seed systems, 1AF is a key partner in farmer participatory trials of legume and pulse crops supported by the AVISA program. Such trials provide breeders and seed multipliers with valuable information on variety performance and farmer preferences.

We are also building a joint program to catalyze seed potato production in Kenya and Rwanda. This program builds on SFSA expertise and existing partnerships with the International Potato Center and Kenya's Kisima Farm. Our ambition is to meet smallholders' growing demand for certified, clean seed potatoes and thus help them raise yields by around 50%. In soil health, we jointly designed a program to evaluate the value of using different lime products in acidic soils in East Africa. This program is now integrated into a recently launched, region-wide initiative coordinated by the International Maize and Wheat Improvement Center. 1AF and SFSA retain an implementing and advisory role, particularly focusing on Kenya. We have also recently completed a joint feasibility study (supported by The Nature Conservancy) to assess carbon credit schemes as a potential revenue source for smallholders served by 1AF. Our partner will now pilot several financially promising models. We will assess their replicability in SFSA programs offering "last-mile" services to smallholders.

2020

*36,530 farm families reached
\$2.95m extra income for farmers
(\$80/family; representing a 33% boost in profits)*

14. <https://oneacrefund.org/>

Towards Gender Equality

Global poverty eradication and sustainable economic growth require equitable and inclusive markets and societies. From 2021, SFSA is working toward an aspirational target of gender equality among our beneficiaries by 2025. We will focus strongly on the empowerment of women and other frequently disadvantaged groups as a key to sustainable socio-economic development. We shall also be doing more to foster staff diversity and create an inclusive workplace in which employees feel encouraged to express their opinions and ideas.

In some areas, we are still working out the feasibility and consequences of striving for and monitoring male and female parity among our beneficiaries. However, several initiatives are already greatly contributing to reaching this goal. This section provides some examples, as well as showing where we still have further to go.

In 2020, women owned almost 750 SFSA Agriservice Centers – some 18% of the total. We help female Agri-Entrepreneurs (AEs) to start their businesses by facilitating access to training programs that prepare them to respond to local needs and business opportunities.

There is good evidence that women learn better in single-sex classes. This is particularly true in more male-dominated societies. A special SFSA skills center in India – the country's first of its kind in the country – exclusively trains women to become AEs. They can then start businesses in their rural communities. AEs help neighboring smallholders get the products, advice and market connections they need to earn a better living. After opening in October 2019, the center trained two groups of Agri-Entrepreneurs in the classroom. From March 2020, it moved all courses online because of the COVID-19 pandemic. Women continued to participate successfully. The center plans to re-open its classrooms as soon as the situation allows. Skills programs like this provide a crucial boost to rural women's careers. Training enables them to stay close to agriculture and avoid having to migrate to cities. Males and female smallholders alike benefit from the AE services. To facilitate AE access to low-interest credit, SFSA creates links with local banks and other financial organizations. We lay great emphasis on equal credit access for all.

Another example of our commitment to gender equality are our insurance initiatives in several countries in Asia and Africa. In 2020, the programs enabled approximately 65,000 female smallholders to access training and agricultural insurance products. They formed about half of all the beneficiaries.

2020

Female entrepreneurs own 18% of Agriservice Centers. 50% of smallholder participants in our insurance initiatives are women.



Mali – Youth 'agripreneurs' receive certificates after 8 months' training on crop production and greenhouse management.

In the area of information access, SFSA in 2020 completed its second three-year partnership with Kilimo Media International (KiMI) in Kenya. This initiative trained rural radio staff and county extension officers to broadcast agricultural advice in local languages¹⁵. The initiative vastly increased the reach of extension services in remote areas; farmers adopted numerous practices discussed on air.

2020: 61% women farmers in the listening groups

The use of local languages played a crucial role in adoption of the advice, as did the support of county Agriculture Departments. In 2020, the second group of radio stations had an estimated audience of about two million. For the most avid, KiMI helped set up Listener Groups. Of the 3335 smallholders organized in these formal groups last year, 61% were women. The Listener Groups are a hallmark of KiMI's work. They bring farmers together after a broadcast to discuss its contents and decide on action. Many Listener Groups are entirely or largely female.

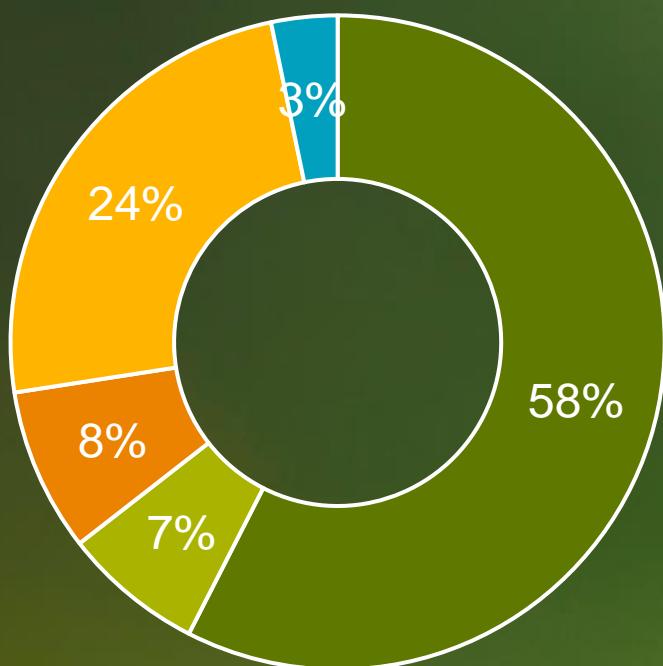
Deeper analysis of the impact of our programs on women farmers and entrepreneurs and their households follows in our website news and future annual reports. We shall also be keeping a close eye on Diversity and Inclusion in our own teams. For further information on our D&I work internally and externally, see www.syngentafoundation.org/diversity-inclusion



15. <https://www.syngentafoundation.org/news/recent-news/old-school-radio-covidly-hot-news>

Partners

We are very grateful for the financial and in-kind support of Syngenta AG and our other partners. In 2020, they provided total funds of \$28.8m*. These were allocated as follows:



Incoming Funds 2020

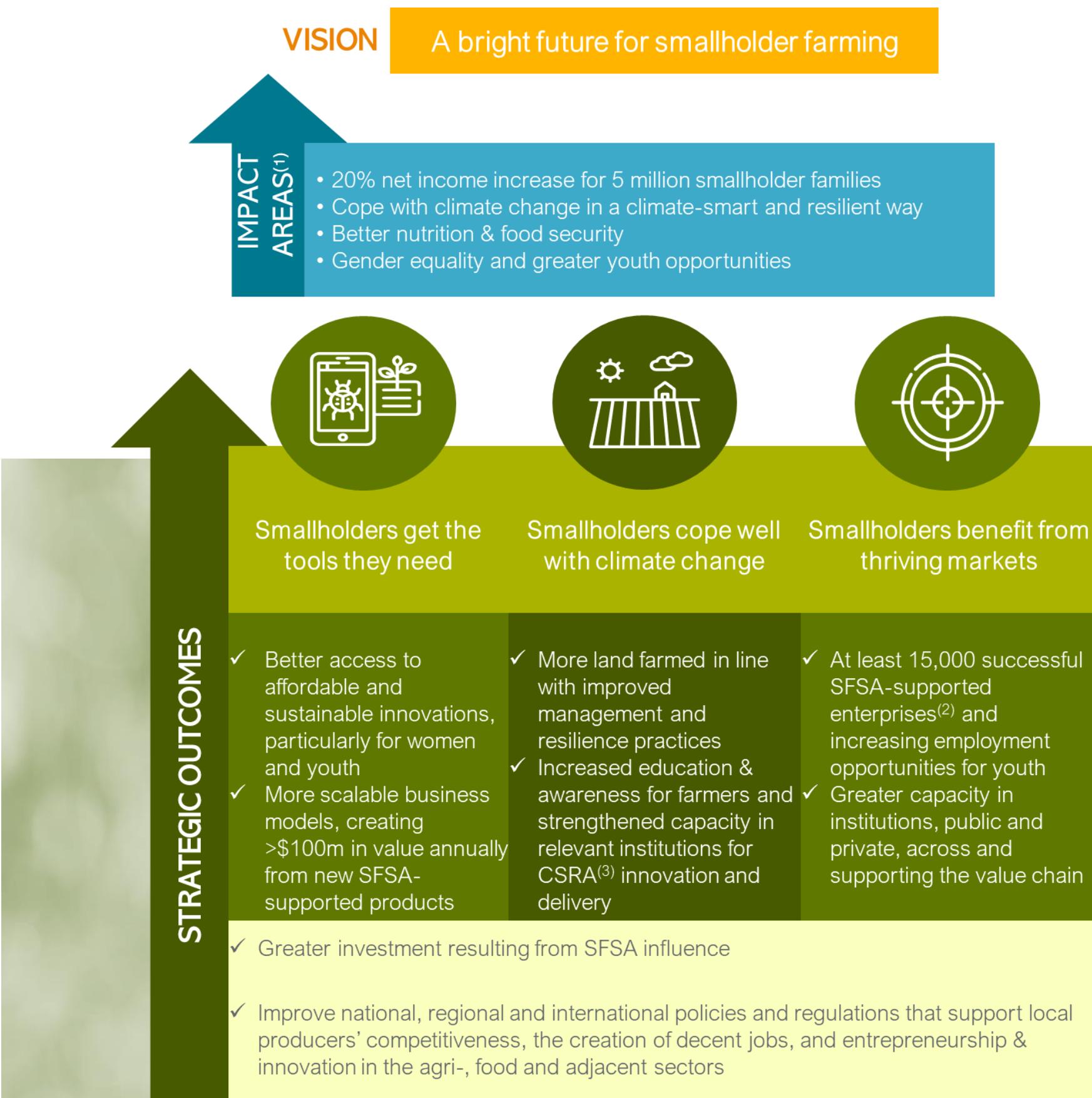
- SYNGENTA to SFSA HQ
- Third Party funding to SFSA HQ
- Third Party funding to local Foundations
- Third Party funding to our Programs
- Catalytic Intermediary

**Total funding raised. This includes funding channelled by Syngenta AG to SFSA HQ and country offices and funding that is channelled directly from other funders into local Foundations and programs. Funding flowing directly to SFSA programs which do not flow through SFSA HQ accounts is captured where this data can be obtained. If funding is given over multiple years, the sum is split evenly over each year. Interim financial statements partially audited.*



Looking forward: Our 2025 commitments

SFSA is striving to reach strategically chosen targets which will help achieve our vision. We have quantified and calibrated these targets based on current performance and impact; they are subject to future program adaptations. We will continue to refine these targets and use our Performance Measurement system to report on progress annually.



(1) These targets depend on the achievement of all the others

(2) 'Enterprises' here mean input companies / markets, farmer groups, aggregators, agriservice centers, off-takers, output markets, etc.

(3) CSRA – Climate Smart Resilience Agriculture

Our progress in numbers

	Farmers reached ('000)		Businesses selling SFSA-SPs		Sales of SFSA-SPs (m USD)	
	2019	2020	2019	2020	2019	2020
Agriservices	Asia	332.06	603.6	2777	4003	16.0
	Africa	8.6	28.3	62	171	1.1
Agricultural Insurance Solutions	Asia	9.6	32.0	26	31	15.5
	Africa	94.8	100.4	18	27	<i>in review*</i>
Seeds2B	Asia	5.1	16.5	22	34	0.73
	Africa	26.1	42.9	114**	152	0.77
Strategic partners	Africa	42.7	47.08	n/a	n/a	n/a

Other 2020 data

		# of capacity building events ^(a)	Farmers participants ^(b)	Other participants ^(b)	% of women among farmers reached ^(c)	% of women-owned businesses ^(c)
Agriservices	Asia	545	71734	18181	n/a	17
	Africa	14	11306	36	n/a	29
Agricultural Insurance Solutions	Asia	243	2491	528	47	n/a
	Africa	19	4083	4005	51	n/a
Seeds2B	Asia	43	1182	306	n/a	n/a
	Africa	31	6081	594	n/a	n/a

Particularities of these indicators are mentioned under each section. Data are collected biannually, partially automatically using SFSA's or partners' IT tools. For manually collected data, we use Smartsheet with automated validation steps. Indicators' definitions and methodologies can change depending on activities' evolution and implementation of our refreshed strategy. Such changes will be communicated in future reports.

*2019 value from a third-party institution is under revision due to the implementation of a new reporting tool.

**2019 values were restated due to implementing a new definition that includes a more extensive type of business.

(a) The number of capacity-building events or activities given, funded and/or supported by SFSA to support any stage of bringing SFSA-supported products to market. Activities include workshops, field days or any type of training. The number of events does not consider their length, degree of detail or topics.

(b) The number of people attending capacity-building activities given, funded and/or supported by SFSA is desegregated by type of participant. The categories include farmers, public (e.g. local organizations, academia, local government representatives) and private (small and medium enterprises) actors.

(c) Gender-disaggregated data for 2020 were only reported in certain programs. We aim to extend such reporting across all our activities.

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