STRENGTHENING AFRICAN RURAL SMALLHOLDERS

CARE. ACT. SHARE. LIKE CORDAID.
As STARS is ending, we review some of the milestone achievements of the program. We also expect to expand on successful models to be replicated throughout the operating countries and beyond. This would steadily increase the number of farmers who can be fully integrated into the markets, thereby lifting themselves out of poverty.

The teams in the four operating countries, the consultants and others associated with STARS, went through a journey like no other; we explored, adjusted, reflected and tried harder time and time again. I want to thank you for your courage and endurance in this journey. Lastly, thanks to Mastercard Foundation, our partner and enabler of all of it.

I hope this booklet and numerous other publications serve to inform and inspire others. It should help them to develop more innovative ideas that bring about enduring changes in the lives of smallholder farmers, leading to genuinely inclusive economic growth and reduced poverty.

Maurice Koppes, STARS Program Manager
STARS AT A GLANCE

USING A MARKET SYSTEMS DEVELOPMENT APPROACH

ABOUT STARS
Strengthening African Rural Smallholders, in short STARS, is a five-year (2017 – 2021) program in partnership with Mastercard Foundation and ICCO Terrafina. Through a Market System Development approach the program focused on improving access to finance and markets for more than 200,000 smallholder farmers in Ethiopia, Rwanda, Senegal and Burkina Faso.

THE STARS APPROACH
STARS seeks to change the way markets work, so that smallholder farmers benefit from economic growth and development. In each of the four countries, STARS employed a specialized Market Systems Development (MSD) team partnering with the private and financial sector, Producer Organizations (POs), and various government bodies to create lasting change for farmers.

STARS’ strategy is based on three core pillars: Access to finance, value chain development and Program-Embedded Reflection and Learning. (PERL)

MAIN IMPLEMENTER
ICCO (part of Cordaid)

PARTNERS
Mastercard Foundation and ICCO Terrafina

PROGRAM PARTNERS
Microfinance Institutions (MFIs) (22)
Producer Organizations (POs) (60)
Commercial banks (3)
Input suppliers (47)
Processors (37)

TOTAL BUDGET
17 million USD

ANNUAL BUDGET
4.2 million USD

MAIN OBJECTIVE
Through a market system development approach the program focused on improving access to finance and markets for more than 200,000 smallholder farmers in Ethiopia, Rwanda, Senegal and Burkina Faso. The program aimed to have an overall impact in the lives of more than 1 million people.
Cordaid and ICCO have joined forces as of 1 January, 2021. Sharing Christian values, we combined our networks, knowledge, and organisational infrastructure. This increases our impact in addressing today’s and tomorrow’s global challenges. Together we continue as Cordaid.

Cordaid is an internationally operating value-based emergency relief and development organisation, working in and on fragility. More than 1.6 billion people live in fragile settings. They search for safety and freedom, shelter, a doctor when needed, an income, and even food for the next day.

Their quest is universal: to live in dignity. We believe in a world where people can break through barriers of poverty and exclusion, influence decisions that affect them, and participate in equitable and resilient societies. A world with an economy not driven by greed and growth, but by inclusivity, social justice, and gender equality. That world is our goal. We work towards it in everything we do.

Addressing the causes of fragility, we support local communities, service providers, and frontline aid workers in creating food security, offering healthcare and education, assuring security and justice, and promoting gender equality. We empower people economically, facilitate job creation, and foster inclusive economic growth. Wherever disasters strike, we also offer humanitarian assistance.

With a thousand dedicated professionals working in the world’s most fragile areas, an annual turnover of more than 200 million euros, and a longstanding track record - we started in 1914 -, we have the resources, the skills and the networks to make positive change happen. Even in the toughest and most desperate of circumstances. We do this by fostering local ownership wherever we work, and by collaborating as much as possible with local organisations, governments, and the private sector.
Through the market systems development approach, STARS worked to improve smallholder farmers’ agricultural skills and their position within the value chain. More specifically:

**Business models for service providers**
STARS developed and tested new business models for fee-based services to farmers within the cooperatives working in the eight value chains.

**Improving input suppliers’ offer**
STARS worked with input providers to adapt their supply packages to farmers’ needs and embed advice in their product delivery.

**Professionalization of producer organisations**
STARS supported all 60 cooperatives to professionalize their services by providing them with business skills and strategic management training such as bookkeeping and budgeting and planning. STARS also supported them to develop business models to diversify their income.

**Farmer training**
STARS provided agricultural best practice training on the selected crops in the eight value chains to over 40,000 farmers in the four countries.

STARS sought to know what works by understanding program results and by generating insights in challenges and opportunities faced by farmers.

**Monitoring change**
STARS quarterly monitored progress against its program KPIs, using mostly quantitative methods. STARS also performs in-depth studies including partner/client satisfaction studies, assessments of newly introduced business models and the uptake of newly developed agricultural credit products.

**Reflection & learning**
The STARS country teams held quarterly reflection meetings to review their program activities, achievements, opportunities, challenges, learning and needed actions. These meetings were all the more valuable because program partners regularly participate in the exercise. Key learnings were identified and short-term adaptations for program implementation were decided on.

**Knowledge dissemination**
STARS developed learning products on its MSD approach in rural agricultural finance and value chain development. These include reports, factsheets, stories of change, blogs, as well as conference presentations and papers that were shared with a wider audience.

**Credit product design**
The 22 MFIs developed, tested and rolled out 20 tailor-made credit products in four countries, using the Agriculture Credit Assessment Tool (A-CAT). These products are being used by more than 120,000 actors in the eight selected value chains, as well as others.

**MFI risk management**
STARS equipped MFIs to manage agri-finance products and evaluate their risks using A-CAT and by setting up risk management committees within their institutions.

**Value-chain orientation**
MFI loan officers were trained to increase their knowledge on agricultural value chains.

**Attracting savings and investment**
STARS supported all 22 MFIs to attract more funding through business plan development, international brokering and business to business sessions. As part of the savings mobilization strategy, STARS also supported MFIs to develop more savings products.

STARS partnered with 22 microfinance institutions (MFIs) in the four countries to develop innovative tailor-made financial products for smallholder farmers. More specifically:

**Pillar 1**
Access to finance

**Pillar 2**
Value chain Development

**Pillar 3**
Reflection and learning
STARS IN NUMBERS

338,734 clients received an agri-loan (54% female clients)

24 loan products were developed and/or refined

$60 mln disbursed to farmers (178 USD average loan amount)

1594 loan officers were trained in using A-CAT and/or on risk management

62,025 farmers received training on AG best practices

8 value chains were improved in four countries

60 POs received capacity building on business plan development

34,000 Farmers accessed agri-services information through digital platforms

24 public events where STARS was a presenter

44 STARS studies completed and disseminated

71 internal events on sharing lessons learned and best practices

2 Cases where the market took up/copied a STARS product, service or approach
To develop tailor-made agricultural loan products for farmers working in all value chains, ICCO’s STARS invested a lot of time in really getting to know its farmers, by developing the Agri-Credit Assessment Tool (A-CAT). With this tool, MFIs can get better insights into the farmer’s cycle of agricultural activities, the costs, risks and benefits, allowing MFIs to analyze their economic performance and predict their capacity to repay their loan.

With A-CAT, a loan officer estimates the expected loan amount needed to finance inputs and other costs, as well as the expected income from agricultural activities (using estimated crop yields). Based on this cash flow, MFIs can determine the ideal loan size for a particular farmer and whether the client can repay the loan from the investment. An additional advantage is that the client builds up an agricultural performance and credit history.

“A-CAT helped us to reduce the risk of providing agri-loans. When we can use this in an app on our smartphone we can even handle more clients with our loan officers,” Louis Lambert Nzabandora, head of operations Clecam Ejoheza MFI Rwanda explains.

“Thanks to A-CAT, we are able to finance more farmers with tailor-made loans, which helps our communities to invest in their farms,” says Lamine Dia, Director of MFI U-IMCEC in Senegal.
PROGRAM HIGHLIGHT

USING A GENDER-SENSITIVE APPROACH

Although women are the backbone of the agricultural sector, they often lack access to capital and agricultural training, making it impossible to invest in their farm activities. To address these bottlenecks that female farmers face, STARS worked with microfinance institutions in the four countries to develop loans that fit the specific needs of female farmers. With good results, because by the end of 2020, STARS provided over 300,000 loans of which 54% went to female farmers.

To achieve these numbers, STARS worked with MFIs to provide remote, digital access to financial services to overcome mobility challenges experienced by women. STARS also provided a number of trainings on leadership, marketing and negotiation to female cooperative members. But most importantly, by engaging with the underlying prejudices MFI staff had against women, STARS was able to address some of the deeply-rooted power imbalances.

“Before, we were convinced that our personal and household income had to be controlled and managed by our husbands, who would also decide on women’s needs. Fortunately, after being trained by ICCO, us women, we have understood our full rights to decide on how we can use and control income generated from our production,” a female farmer in Rwanda explains.

“We learned a lot from ICCO’s STARS trainings. We learned the importance of supporting our wives and working together with them in all production phases until the selling time. We have made our wives more responsible and powerful and the whole family benefits from it,” a male farmer in Rwanda adds.

For more information, see the publication ‘Starring Women’ here.
COUNTRY DEEP-DIVES
STARS IN BURKINA FASO
In Burkina Faso, the program aims to strengthen two value chains: shea and sesame. Aiming to improve access to markets, skills training, farm inputs and equipment, STARS partners with value chain actors, including producers, processors, service providers, cooperatives, and unions. STARS has worked with several MFIs to develop four tailor-made loan products: solidarity credit, individual credit, sesame end shea value chain credit, serving 88,537 clients. STARS also partnered with eighteen producer organizations to build their capacity, and to improve access to inputs and to markets to its member farmers.

KEY RESULTS

Access to Finance
During the start of the program, STARS in Burkina Faso selected two value chains; sesame and shea. Together with the partner MFIs, STARS developed crop-specific loans for these farmers, using the Agricultural Credit Assessment Tool (A-CAT). After successfully providing loans to these farmers, MFIs decided to use their newly acquired skills to develop more loans in other value chains. The result? By the end of the program, 88,537 farmers working in the maize, soybean, shea, potato, sesame and rice value chains benefitted from a loan. Thanks to STARS, MFIs are now sufficiently equipped to develop products independently.

Value Chain Development
STARS provided several capacity building activities and training tools for 18 producer organizations, supporting them to train their members on agricultural best practices. STARS also brokered market linkages between producer organizations and (inter)national buyers. In the shea value chain, this resulted in contracts between four POs and shea kernel buyer AAK. In the sesame value chain, one PO was able to produce organic sesame for the international buyer and processor OLVEA. Thanks to the higher quality of their produce and the new market linkages, cooperative members are now able to sell their produce under a Fair for Life or/and organic label, which results in higher prices than the conventional market.
The Songtaab Yalgré Association, one of the very first shea cooperatives in Burkina Faso, has been working for more than two decades to meet market demands for processed products such as shea butter and ointments, soap, lip creams, etc. Despite the ambitious goal to diversify their product range, growth numbers left behind due to a number of operational difficulties, leaving the cooperative in a financially critical position.

When supported by the STARS program, the organization seized the opportunity to diversify its range of commercial partners by integrating shea kernels in its product offering, as this is where there are promising market opportunities. This has not only improved the financial performance of the organization but also improved the income of the 1,200 female members of this organization.

In addition, a 3-year contract was signed between ASY and the company AAK for the sales of shea kernels under the Fair For Life (FFL) label. The contract states that in addition to a premium price, a fair trade premium of at least 10% of turnover will be paid. Another quality premium will be paid when the cooperative can guarantee quality standards related to the moisture content and the acidity rate of the kernels.

In 2019, the cooperative received its first quality premium and a fair trade premium for their produce. The cooperative decided to invest the premiums into their communities; by donating school kits, gas stoves and by providing members with materials that help them store and transport their products better.

LESSONS LEARNED

Access to Finance
STARS in Burkina Faso learned that it is important to fully focus on strengthening the partners’ financial performance and improving their portfolio quality before establishing relationships with potential investors.

By using A-CAT, MFIs were better able to assess the creditworthiness and repayment capabilities of their clients. They also learned that it is necessary to provide regular small disbursements instead of one big disbursement at the beginning of the agricultural cycle. And most importantly, MFIs learned that it is necessary to put an emphasis on monitoring their clients’ repayment capabilities after they have received their loan.

Value Chain Development
One of the major issues POs in Burkina Faso face is meeting the high-quality standards set by their buyers. This puts them in a weak position when they negotiate their prices. STARS learned that POs have a tendency to wait for NGOs who come to them with free trainings that help improve their products. Instead, in 2017, STARS started a series of ‘Training of Trainer’ sessions on a wide variety of topics, including quality control and butter hygiene. Thanks to these trainings, POs have been able to train all members gradually and independently, which has significantly increased the quality of their products. This has positioned them well with international buyers and allows them to take a slightly firmer position at the negotiation table.

STORY HIGHLIGHT

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Sesame farmer Soungalo Traore, who lives in the village of Sidi (Kenedougou province), has received three loans in the last three years, thanks to the intervention of STARS. “I received the loans through my cooperative GIE and invested the money in fertilizers and herbicides. I have had three profitable years. Before STARS, my harvest would not have been sold for more than 380 EUR, but now I have profits of over 2,000 EUR. I invest the money in constructing a family house.”

STARS developed a partnership between farmer cooperative GIE and the MFI GRAINE. STARS also provided GIE with technical support and management support. The producer organization also received support for the development of their own business plan. The effects? The organization has increased the quantity of sesame sold collectively and members improved their yields.

Through STARS, GIE was linked to the international buyer Olam in 2020. Thanks to the professionalization of the producer organization, GIE managed to collect the produce from its members and to organize a grouped sale. This resulted in farmers getting better prices for their produce. STARS also trained GIE’s members in Agricultural Best Practices and Warehouse Best Practices. “This has helped me to do my farming in a more professional way. I even started to have the idea to start producing high quality sesame seeds,” Mr. Traore adds.
COUNTRY DEEP-DIVES
STARS IN ETHIOPIA
In Ethiopia, smallholder farmers have limited access to markets and tailored financial services. Microfinance institutions (MFIs) generally do not offer appropriate loans and they typically face liquidity shortages. The latter, in part due to their limited capacity to attract public savings.

Aiming to improve smallholder access to finance, STARS Ethiopia worked with six MFIs (Buusaa Conofaa, Metemamen, Wasasa, Harbu, SFPI and OCSSCO) to improve the financial services they offer. Together, five crop specific loans for malt barley, vegetable, maize, chickpea and potato were co-developed while simultaneously the MFIs’ capacity on risk management, and technical skills was enhanced.

To date, 45,748 farmers (6,535 of which are female farmers) have benefited from these crop specific loans. Amounting to a total disbursement of USD 8.2 million, these loans have improved their income and food security. MFIs institutionalization of these loan products guarantee that more farmers access and benefit in the future.

At the same time, MFIs’ challenges to mobilize savings and improve their liquidity, were innovatively addressed introducing savings products based on behavioral economics. This has led to the development of three savings products that were piloted in 27 MFI branches.

Producer organizations (POs) are faced with numerous challenges too. They struggle to supply the right quantity and quality of produce to buyers, to access big buyers, they lack market information, and eventually are unable to adequately serve their member farmers when it comes to inputs or aggregating produce. Combined with farmer’s lack of access to finance, this results in sub-optimal yields, impacting farmer’s resilience, income and ultimately their food security. Therefore, STARS aimed for a better functioning and more inclusive market.

To this end, the program partnered with 21 producer organizations (POs) and various private and public actors to strengthen the potato and malt barley value chains. The main goal was to improve access to inputs and output markets as well as capacity building of the partner market actors.

STARS simultaneously addressed value chain development issues as well as access to finance, contributing to a more inclusive and sustainable market for smallholder farmers, impacting over 425,000 individual household members.
A collaborative model for input supply

STARS initiated a collaboration between Sagure and Etaya, two Farmer Service Centers (FSCs), and the MFI Wasasa, aiming to develop a sustainable input-supply system benefiting farmers as well as MFIs and FSCs. The collaboration aimed to allocate these actors more fitting roles. MFIs were to aggregate their clients’ agri-input demand and provide financing, while FSCs were to be tasked with supplying of malt barley inputs. This arrangement allowed for FSCs to provide advice and agri-extension services to farmers that came to them for inputs.

In the 2019 pilot, the business case was explored and the model was then replicated by another FSC - Huruta. The model thus improved farmer’s access to quality full-package inputs and advisory and extension services. Scale-up of this model is well underway for the 2021 malt barley production season.

Improved access to quality potato seed

STARS facilitated a public-private partnership (PPP) to address the poor quality of Gudene variety potato seed. The program hosted business to business sessions and co-developed a sustainable business model for improving the current seed available. In this partnership, 10,000 plantlets were produced by one of the private actors and sold to a third party for seed multiplication. In this PPP, partners work together to provide access to improved potato seed for farmers, through POs, by mid 2021.

Improved MFI risk management

STARS identified important gaps in partner MFIs’ risk management practice, such as poor portfolio quality management and liquidity management at the level of the board of directors as well as the branch level. Risk management tools were developed and training was provided to branch level management and the board of directors from partner MFIs.

As a result of these, and other STARS innovations such as crop-specific loans and the introduction of A-CAT, these microfinance institutions now look beyond borrowers’ behavior and character references at the viability of a farmers’ business case to determine loan eligibility.

This is a great step towards MFIs’ professionalization and helps to ensure the sustainability of MFI operations while benefiting farmers.

**KEY RESULTS**
LESSONS LEARNED

Behavioral economics for savings mobilization
Despite MFIs struggling to mobilize adequate savings to ensure sufficient liquidity, STARS learned that MFI clients are actually eager to start saving. It is crucial, however, that a concrete savings goal is formulated. Allowing for depositing small amounts per week (USD 1-6) also makes saving more attractive. STARS thus found that incentivizing clients to start saving can be achieved using a behavioural economics approach provided that context and operational capacity of MFIs is understood.

Sharing information is the key to sustainable collaboration
Promising partnerships require coaching and follow-up to be successful. Timely information sharing, while crucial to its success, does not come naturally in new partnerships. In STARS’ malt barley input supply intervention, in which an MFI was linked with three farmer service centres (FSC), inadequate information sharing led to farmers missing out on timely malt barley seed disbursement. Therefore, in the current scale-up of this model, STARS gave due attention to this important facet of cooperation.

From pilot to systemic change
STARS - as a market systems development program - aims for systemic change, embracing complexity and adaptivity. The program is characterized by very diverse interventions. Some of which were successful from the start, while others yielded more mixed results. Rather than being discouraged, STARS thoroughly monitored and analyzed their impact to inform adaptive management for improved results. That also means that some of the interventions have only recently started. Nonetheless, they have shown signs of sustainable systemic change. An example of this are the various crop-specific loans offered by partner MFIs. Their success shows that farming is a viable business case worth investing in.

Thus, despite the program having completed, these systemic improvements continue to benefit the farmers we targeted. In fact, some innovations are replicated or adapted by others, such as a the wheat loan. While STARS did not have to actively offer support for its development, the benefit of STARS is effectively extended to people outside of the original target group.

PARTNERSHIP HIGHLIGHT

The digital future of last mile distribution
Timely and affordable delivery of agri-inputs to smallholder farmers is a major challenge in Ethiopia. Not only do farmers themselves lack access to wholesalers, transportation costs further burden farmers, as does limited knowledge of how to apply these inputs to maximize productivity. Slowly but surely however, a homegrown Ethiopian solution to these problems is taking shape in the form of Lersha, which STARS supported through its partnership with Green Agro Solutions.

With a digital application at the core of its functionality, Lersha mobilizes agents that locally aggregate farmer demand for input, reducing the costs of transport. Utilizing their agronomic knowledge, these agents help farmers determine what inputs they need and how to best put them to use. Lersha aims to improve the quality of inputs and advisory services at an affordable price.

STARS supported Lersha to improve the training of Lersha agents, design an agent management system, improve production manuals and evaluate their software. These are crucial steps in this start-up phase, laying the foundations for sustainable success.
Access to a warehouse is crucial for a strong input-supply system, allowing POs to distribute inputs (such as fertilizer) to farmers and to aggregate produce from their members to sell it in bulk to prospective buyers. However, some partner POs in the STARS program lacked access to adequate warehouse facilities. As a result, they were unable to capitalize on favourable market conditions for input distribution and for selling produce in bulk.

STARS understood that the absence of better quality storage facilities stood in the way of improving the POs’ performance on input supply for members and selling members’ produce to buyers, leading the STARS team to support POs by covering 50 percent of the warehouse rehabilitation costs and by providing technical advice on how to make best use of the warehouse.

As a second step, STARS facilitated a partnership between PO Limma Walta’i and the MFI Buussa Gonofa. In addition, Limmu Walta’i was among the POs selected for warehouse rehabilitation support through the STARS program, enabling the PO to provide better services to its members and non-members. As a result of the rehabilitation of the warehouse, access to and the supply of inputs for farmers improved and the volume of malt barley traded by the PO significantly increased. Moreover, it enhanced the PO’s visibility and standing in the community while convincing outsiders, such as Buussa Gonofa, of the value of a strong PO.

As part of the partnership agreement, the PO committed to distribute malt barley seeds to MFIs’ clients, benefitting 600 farmers. Thanks to the warehouse, the PO was able to improve access to inputs, which allowed the MFI to continue to provide loan services to smallholder farmers and the PO to generate additional income. Not only is the PO now dedicated to continuing doing business with the MFI, they are also exploring new business relationships with other partners to diversify their sources of income.
Daba is a father of ten. He has been a farmer for many years in Sagure, Arsi zone, growing a variety of crops to help feed his family. Despite the fact that Ethiopia is one of the major producers of malt barley in Sub-Saharan Africa, Daba never considered growing malt barley as a viable business opportunity. “Before I planted malt barley, I had a shortage of income. I planted beans, peas and wheat, but that was often not enough,” Daba recalls.

Farmers such as Daba have low yields due to lack of access to quality inputs. To help Daba and others boost their production, STARS partnered with six MFIs to develop more knowledge on how the barley value chain works, and how to best adapt loans to the needs of farmers. “Since STARS started to train us, we are able to better advise farmers. The result? More farmers have been able to find their way towards us,” explains Mr. Bokke, manager of the MFI Wasasa at the Sagure branch.

STARS also linked us to the Farm Service Center in our village, which now sells high-quality barley seeds and agro-chemicals to farmers,” he adds. “The MFI in our village provided me with a loan and linked me to the Farm Service Center, so this year I was able to get access to high-quality seeds and agro-chemicals.”

The Farm Service Center is currently developing more fee-based extension services to support farmers to increase the quality of their barley production. The quality increase will help the farmers to get linked to the malting factories and breweries in this region.

“In 2019, I planted ½ hectare. And because the crops looked good that year, I was able to reimburse my loan in only three installments,” Daba explains. With the profit Daba makes, he would like to buy extra land. “I’d like to plant more malt barley next year, it’s a profitable business.”
In all four countries, STARS has introduced demand-based Business Development Services (BDS) that are paid for by its users or other value chain actors. “BDS are services provided by (third) parties offering temporary support to develop a business,” explains Maurice Koppes, STARS’ Head of Program. “Examples are technical training on a range of subjects, management training, and other temporary services needed to improve business performance. Business services, on the other hand, or more permanent in nature such as logistical services, power and water, or market information,” Mr. Koppes adds.

In Rwanda, STARS has worked on developing BDS within the cooperatives either as a fee-based or an embedded service. Starting with two Producer Organizations (POs), the program worked on awareness raising among PO members on the need for quality BDS services, while training the BDS providers in the Farmer Field Schools run by the PO. The embedded BDS services that were developed ranged from GAP on seed preparation, nursery bed preparation for rice, weeding, handling and responsible use of fertilizers and chemicals spraying. Farmers were also trained on entrepreneurial skills such as selling at the right time and how to effectively negotiate prices with buyers.

In Senegal, STARS has supported agri-services/market information platform mLouma to develop new fee-based agri-services for value chain actors in the cowpea and onion VCs. Farmers and other value chain actors such as input suppliers, traders, processors and supporters such as banks and BS can access suitable information through the internet or SMS. The service is paid through a fee upon request of information. This service is called Xam Sa Mbay or ‘know your agriculture’.

“Xam Sa Mbay provides producers with information on market prices of agricultural products. In addition, it provides meteorological alerts such as rain forecasts, but also relevant information on available inputs and their suppliers, as well as agricultural best practices,” Idrissa Ba, STARS’ Country Lead in Senegal explains.

For more information about all BDS models STARS developed in Senegal, Rwanda, Burkina Faso and Ethiopia, you can find the full publication here.
COUNTRY DEEP-DIVES
STARS IN RWANDA
STARS Rwanda set out to impact almost 90,000 farmers and worked with seven MFIs with the goal to develop loans tailored for smallholder farmer groups engaged in the rice and maize as the main value chains as well as individual farmers of onion and other vegetables. The resulting agri-loan products took into account the seasonal cash-flows and production costs of farmers. The program also worked with actors across the value chains among them 10 rice and five maize cooperatives, service providers and offtakers (processors) to strengthen the value chains through creation of stable markets, access to quality inputs, improved agricultural practices and farming technology.

**KEY RESULTS**

**Financial products**
Together with seven MFIs, STARS developed five agri-loan products, resulting in a total loan amount of 11 million USD disbursed to 89,865 farmers (58% women). STARS also supported MFIs to increase their liquidity by developing savings products. As a result, almost 3,000 clients saved 59,000 USD. STARS also helped MFIs to access capital from (inter)national investors; a total of 3.7 million was collected and re-invested in agri-financial products.

**Fee-based services**
To ensure that smallholder farmers access extension services such as capacity building, chemical spraying to control pests and diseases services in a sustainable manner, STARS introduced a fee-based service model to POs. Under this model, STARS trained 305 farmers who will continuously provide knowledge on GAP and chemical spraying to farmers for a fee. As a result, 10,737 farmers were trained on GAP and 2056.47 ha has been sprayed. Consequently, impact assessment showed improvements in yields in rice to be between 25% and 70% and in maize of 30% up to 200%.

**Input supply**
STARS provided technical assistance to six basic seed multipliers and 16 certified seed multipliers to improve the quality of seeds to meet inspection standards set by the Rwandan seed inspectorate authority. STARS also linked POs to these seed multipliers and strengthened relationships with rice seed stakeholders. In total, seed multipliers supplied 364 MT of certified seeds to 68 rice PO and to at least 40,000 members.

**Female leadership**
STARS not only supported producer organizations in Rwanda to include more women in their leadership; the program also stimulated female farmers to become leaders in their homes, their farms, and their communities.

As a result, women are more confident about their participation in value chain activities, and conflicts on agricultural resources have reduced among households. Women representatives in POs leadership positions increased from 20% to between 30 – 40%. In addition, women have less fear to request loans for agricultural activities and are supported by their husbands.
LESSONS LEARNED

Risk management at MFI level
STARS learned that effective risk management at MFI level, limits the associated risk to agricultural products, services or operations. And if implemented correctly, the management of risks can help build credibility on the market and generate new opportunities for growth. A strong commitment from board members and senior management team is a must to implement a strong and efficient risk management framework. Branches are the first point of defense of MFIs: Decentralization of some risk management functions at branch level will support a better implementation of the risk strategy.

MSD approach for fee-based services
STARS learned that the fee-based business development services are instrumental and useful for increasing the number of farmers accessing agricultural services. By making these services accessible and tailored to their needs, BDS services become sustainable; which reduces farmers’ dependence on NGOs.

Building a business opportunity for farming equipment
STARS learned that at farmer level, there is a lack of proper knowledge to use and maintain farming equipment. At equipment supplier level, there are no appropriate machines on the market with the right processing capacity and they do not provide after-sales services such as maintenance. Most local manufacturers do not have the financial capacity or knowledge to develop highly-performing machines. When machines cannot be maintained properly, MFIs hesitate to provide loans for farmers to finance the expensive equipment. To mitigate these challenges, STARS developed an asset-leasing business model that will mobilize young entrepreneurs to provide fee-based mechanization and maintenance services to farmers.

STORY HIGHLIGHT

The Dutch-based software solution corporation Simbuka and STARS Rwanda joined forces in 2020 by signing a partnership agreement to further digitize A-CAT, helping more MFIs and banks to provide loans for clients in rural communities. The partnership between ICCO and Simbuka resulted in the integration of A-CAT into Simbuka’s loan origination software.

By the end of 2020, loan officers from three MFIs in Rwanda were able to do their loan assessments in an app. This eases the efforts for the farmers and loan officers and gives MFIs better insight in the creditworthiness of their rural clients. The multi-tenancy SaaS (Software-As-A-Service) architecture of Simbuka enables low-cost deployment, greatly decreasing the cost of supporting the install base.

“The digitalization of A-CAT will increase the appraisal quality and boost the disbursement for agricultural projects, thus reducing the risks. Farmers will get loans in a quick manner, and with respect for the seasonal calendar,” Claudien Nsengimana, CEO of MFI INKUNGA Finance Plc said.
Meet Consolee, a rice farmer in Nyagatare with four teenage children and a grandchild. In 2013, she joined COPRIMU cooperative. Before the cooperative started working with STARS in 2017, Consolee used to farm on just 18 ares, barely producing enough to feed her family, let alone selling. Although she worked hard, poverty was entrenched in this single-parent household.

STARS supported COPRIMU to professionalize their operations and to put in place a gender committee to resolve conflicts and empower its women members like Consolee to participate more actively in the affairs of the cooperative. Consolee was soon elected leader of one of the farming groups members. Consolee’s new role as group leader meant that she could transfer the knowledge from the trainings with STARS and influence the performance of other farmers.

STARS, in partnership with MINAGRI, sensitized farmer groups to consider buying crop insurance to safeguard their production against flooding. Consolee: “I convinced my group to invest in the insurance, although many felt it was a lot of money. We were required to pay Rwf 175 (USD 0.17) per are. And then our marshland flooded just after we had applied fertilizer and we watched our rice die. Imagine how happy we were to be paid compensation by the insurance company!” Consolee recounted.

Consolee was inspired by the rise in production and decided to expand her paddy. From the initial 18 ares, she now farms on 92 ares, of which 36 ares is hers, while she leases the rest. As a result, her production shot up that next season from 450 kg from her small 18 ares plot, to a whopping 5.5 tons of rice. STARS had also linked the cooperative to Duterimbere MFI, where Consolee opened a savings account to manage her money. “I started saving with the vision of building a good house for my family, because we used to live in a tiny mud house and my children needed more space”, said Consolee.
COUNTRY DEEP-DIVES

STARS IN SENEGAL
Financial products
The STARS program in Senegal has improved the living conditions of nearly 115,000 producers through relevant interventions combining both financial and non-financial services. Concretely, thanks to the financial products developed by the four MFI partners these producers have had access to adapted credits. In total, this corresponds to a volume injected by the MFIs of more than 30 million USD. On average this corresponds to an average loan of 493 USD per farmer. The quality of the program interventions is based on innovations that have enabled the introduction of digital finance services in the sector with the bank to wallet products developed by Caurie Microfinance.

Other successes include the launch of A-CAT’s digitization process with MFI UIMCEC, as well as the promising results in providing access to solar panel irrigation through the development of business models between solar panel suppliers, MFIs and horticultural producers.

Value Chain Development
By using the market systems development approach, STARS worked with all value chain actors (PO, MFI, inputs suppliers, traders, BDS, gov agencies, networks) to ensure the success of the program. In the cowpea value chain for example, STARS in Senegal established a seed production system by strengthening the technical capacities of producer organizations, facilitating their access to seed (basis level) and facilitating their certification as formal seed producers. In addition, STARS worked with market actor Mlouma to develop an agri-digital platform to link value chain actors and provide services to farmers such as agri-market information, weather information, etc. Lastly, STARS worked with FNBS (Fédération Nationale des Boulangers du Sénégal) with whom a business model was developed to source from the high quality cowpea for bread making. Lastly, STARS set up an MoU with La Banque Agricole (the Agricultural Bank), which allowed farmers to have access to commercial loans from the bank.
In Senegal, onion is the most consumed vegetable but annual production does not cover domestic demand. STARS brings together private sector actors, financial service providers, input suppliers, and producer organizations to connect onion smallholders to formal markets.

Farmers learn to shift towards more sustainable production practices at Farmer Field Schools. On demonstration plots at the school, STARS showed that the combination of the right inputs with the best agricultural techniques enables higher yields.

By linking input suppliers such as Bejo and Elephant Vert with producers, suppliers boosted their sales and farmers doubled their yields as a result of the high-quality inputs and agricultural best practices.

STARS also introduced longer cycle varieties, showed best practices in storage management, and provided better storage installations at the schools. These all help farmers to bring their onions to market when prices are high.

In addition, STARS worked with financial institutions to develop financial products specifically for onion farmers. This unique combination of developing both financial and non-financial services for smallholder farmers has facilitated a steep rise in yields and income for over 7,000 farmers working in the onion value chain.
Farmer Amy Ndiaye, who is a cowpea farmer in Tivaoune, had never considered farming as a business opportunity. She was mostly growing crops to feed her family. For Amy, it has always been difficult to access a loan to invest in her economic activities.

To help farmers such as Amy to invest in their farms, STARS in Senegal supports four MFIs to develop specific financial products that fit the specific needs of farmers. Investing in cowpea has many benefits, as it improves soil fertility and helps to increase the yields of cereal crops when grown in rotation. It is climate-resilient as it doesn’t need much water to grow. STARS clients of MFIs now have access to four types of products, depending on their profile and needs (agrigroup loan, agri-individual loan, warehouse lending, and cowpea value chain credit). STARS also develops the capacity of four producer organizations to provide better services for their members, including improved cowpea seed multiplication, facilitating access to credit, and product marketing through access to training, coaching, and planning.

Members of these POs also participated in Farmer Field Schools. STARS introduced new cowpea production methods to the schools, which helped 1,700 farmers to increase the quality and quantity of their produce.

Amy: “This year was the first time that I farmed commercially. Thanks to the quality inputs I received through our PO and the agricultural training I got, I was able to cultivate 1/2 hectare of cowpeas. I will sell 80% of my harvest directly to the PO CORAPP, while using 20% for household consumption. During one of the trainings on conservation best practices, I learned new recipes for cowpeas. Did you know that you can even brew coffee using cowpea?”
The study showed that loan product development was one of the most successful interventions introduced by STARS. It focuses on solving one of the biggest problems in smallholder farming: access to financial resources adapted to the needs and possibilities of the farmer, allowing access to quality inputs. The adapted credits and innovations around group solidarity loans, warrantage and solar panel loans have solved many of the problems faced by farmers. Financial data show that these products also affected MFIs positively, expanding their agricultural portfolio, in particular in Rwanda where climatic conditions are generally more favourable for agriculture.

To support the development of crop-specific loans, STARS introduced the agri-credit assessment tool (A-CAT). This enabled partner MFIs to better understand the needs and capacities of smallholder farmers and minimize the risks of defaulting / non-repayment of loans. Using the tool, loan officers were better able to analyze the exact costs associated with crop production and grant loans accordingly.

“MFIs have become champions in client social protection, because A-CAT helps them to do agriculture loan analysis and to give farmers loans that they can pay back. This means that farmers are protected from over-indebtedness”, said Patricie Uwimbabazi, a microfinance consultant with the STARS program.
In addition to loan product development, STARS assisted MFIs with the development of credit- and risk assessment tools, manuals and methods of delivering these services. Knowledge of agronomy was also increased at individual and organisational levels.

“The most important thing we learnt from STARS was that farming is unlike other businesses. So we created loan products that were crop-specific”, said Yves Mfura, the agrifinance lead in Umutanguha MFI. “If it’s rice, we give seven months, if it’s potatoes, we give four months and three months for vegetables. The farmer then has the flexibility to pay back their loan when they harvest.”

POs also improved their services to members, most interestingly by introducing new forms of agronomic extension and taking up production roles in the seed sector, more transparent governance, and better linkages to the markets. For all these outcomes, POs have had to train their staff and adapt their management structures, which they did effectively with STARS’ assistance.

Gender-specific activities have often improved women’s access to positions of control, credit delivery systems and value chains, both in Senegal (cowpea and onions) and Rwanda (rice and maize).

“STARS supported our cooperative to put in place a gender committee to resolve conflicts and empower its women members to participate more actively in the affairs of our cooperative, take charge of their production and understand their right to earn and manage the money they got paid for their rice yield. As a result, women started taking leadership roles, vying for positions alongside men in the governance committee”, Consolee Mukamana, member of COPRIMU rice cooperative explains.

STARS linked farmers and their POs to larger offtakers and relevant networks: directly through aggregation of production and adaptation of those products to market demands, and indirectly through capacity building among POs facilitating communication at a professional level. STARS facilitated linkages between POs and buyers through value chain platforms to improve value chain coordination, but with varying degrees of success.

Linking POs indirectly through their Unions and new large institutional partners such as the World Food Programme (WFP), was not successful as the Unions were perceived to be less effective than the POs themselves. Directly linking POs with clients proved to be more successful, such as the link with Africa Improved Foods (AIF) and various clients such as millers, in Rwanda.

Further aggregation (bulking) of produce is going to be conducive to engaging large buyers such as WFP. However, intermediate size offtakers (millers, collectives of bakers) were enthusiastic and some started funding the FFSs when they realised that their supply was being assured by this linkage, firmly improving sustainability of the relationship. The improved management and communication qualities of STARS-assisted POs has also helped them achieve more prominent roles in the value chain, as they have shown ability and professionalism. Many buyers now perceive these POs to be reliable suppliers. New arrangements such as the ‘warranty’ system affect farmers positively in many ways, in many cases doubling prices for farmers, and the lessons learned with piloting of this type of innovation are worth sharing widely for replication elsewhere.
Targeting women came with relative ease in some countries, for example due to the value chain targeted (i.e. the Shea value chain in Burkina Faso in which women work almost exclusively). Being truly inclusive of women was more difficult for STARS Ethiopia. A client satisfaction study performed, however, did provide some promising avenues to improving inclusion in future programming.

In addition to sensitizing men on women inclusion, the STARS interventions should take care to cater to the specific needs of women. New loan packages should be designed, in consultation with MFIs, to allow married couples to take out two loans per household - one in the current focus value chain (potato and malt barley) and another in a value chain such as poultry, cattle fattening and milk production where women are known to be more likely to control the benefits of their labour. This measure will facilitate the empowerment of women, especially married women, because they have direct control over an income generating activity.

STARS Ethiopia’s partner MFIs have already expressed interest in these new packages for women. However, it is important for women not to feel pigeonholed in a specific (less profitable) value chain, thus efforts to make potato and malt barley production more gender inclusive should continue. Tailoring interventions to women should also include surveying women to assess ideal times and locations for training and other programming.

INPUT SYSTEMS

Through this solution, STARS established and strengthened input supply systems. The programme created access to inputs such as fertilizer, pesticides and seeds through B2B events and market linkages.

The outcomes formulated for this Solution area are bringing different stakeholders together in a number of agreements to improve production of quality seeds as well as the services of farming equipment providers.

This Solution was often integrated with other Solutions: inputs are promoted through FFSs, and seed supply is organised through POs. Input providers were often successfully engaged in FFSs to introduce, test and promote their products. Further improvements can be achieved if these actors provide a larger range of effective but affordable inputs for farmers to experiment with, thus maximising the potential of the FFS system.
The ability to re-finance loans is an important requirement for portfolio growth of financial service providers. Soon after the successful introduction of new financial products, this became a concern of MFIs and STARS, and STARS has successfully linked MFIs to external funds, some in Europe and the Netherlands. Savings ratios for the participating MFIs in Rwanda are high and have even increased, while in Senegal they were generally low but are increasing. Improving savings ratios bring borrowing—an expensive form of re-financing—down. Though the direct impact of STARS’ involvement (actively linking MFIs to Investors, banks and Funds) may have been positive but limited, improving the quality, performance and level of professionalism of MFIs through STARS’ capacity building has indirectly contributed to their improved access to external funding.

For instance, NonPerforming Loans (NPLs) of partner MFIs in the study period have typically gone down from preSTARS double digits to the present rates of between 2 and 7%, 5% being a cut-off point for a quality portfolio. This convinces banks to step into lending to MFIs on favourable conditions. At the same time, most MFIs are attracting higher levels of savings, helping in their funding structure at lower cost.

Of the many outcomes included in the outcome Harvesting exercise, some very successful outcomes were in the realm of linking value chain actors and organisations through STARS partnerships, and in the realm of skills development of all who have been involved in STARS implementation. This is true irrespective of value chain, type and scale of operation of the partners, though the occasional exception (WFP was mentioned earlier) shows that further aggregation of production in some value chains could have facilitated the linkages with even the largest actors.

Actors will continue to interact (and many of the partners, including private sector actors, are expected to do so unless profitability is affected by external shocks), and as such, structural improvement of the institutional environment has been achieved. Already this is taking shape, which is quite an achievement for the short period the programme has been implemented.

**CAPITAL MOBILIZATION**

**PARTNERSHIPS**
MEET THE TEAM MEMBERS

PHOTO GALLERY FROM THE STARS COUNTRY TEAMS

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THANK YOU!

THANK YOU TO OUR PARTNERS

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The STARS teams would also like to offer a warm hearted thank you to our technical partners on the ground. We worked with 22 microfinance institutions, 60 producer organizations, 2 commercial banks, numerous input providers, off takers, farm service centers and farmer field schools. These partners are working hard on a daily basis to deliver much needed agricultural and financial services to their clients. These clients are the most important partner that we serve; the 330,000 entrepreneurial smallholder farmers in Burkina Faso, Ethiopia, Rwanda and Senegal.