

# FARM: Knowledge- and competency-based strategies among rural women in Mali

### **CASE STUDY**



Agricultural and Rural Financing Project in Mali (FARM)

By Mamadou Goïta In collaboration with: Touré Fatoumata Traoré Bréhima Mamadou Koné Ousmane Ouattara

## **ACRONYMS, ABBREVIATIONS AND TERMS USED**

Allianz An insurance company active in Mali

BMS SA Banque malienne de solidarité Société anonyme (Malian Solidarity Bank)

Banque nationale de développement agricole (National Agricultural

BNDA Development Bank)

Crédit intrants pour les femmes productrices d'Oignons (Input credit for

CIFO woman onion producers)

Collectif des centres d'écoute communautaires du Mali (Mali community

COCECM listening centres collective)

CREDD Cadre stratégique pour la relance économique et le développement

durable (Strategic Framework for Economic Recovery and Sustainable

Development)

DID Développement international Desjardins

Financement agricole et rural au Mali (Agricultural and rural financing in

FARM Mali)

FIAP Feminist International Assistance Policy

FO Farmers' organization

FSPG Food Security Policy Group

GDP Gross domestic product

IGA Income-generating activities

IRPAD Institute for Research and Promotion of Alternatives in Development

Kobalacoura One of the first ten villages supported by the FARM project

Kognimba One of the first ten villages supported by the FARM project

Massakoni One of the first ten villages supported by the FARM project

Organisation pour l'harmonisation en Afrique du droit des affaires

(Organization for the Harmonization of Business Law in Africa)

ON Office du Niger (region in Mali)

Office du périmètre irrigué de Baguinéda (Irrigated Perimeter Office of

OPIB Baguinéda)

**OHADA** 

Société de coopération pour le développement international (an

SOCODEVI international development cooperative)

## **Acknowledgements**

We would like to extend our thanks to the women farmers of Kobalacoura, Kognimba and Massakoni (Baguinéda); the leaders of the Irrigated Perimeter Office of Baguinéda (OPIB); the National Bank for Agricultural Development (BNDA); Faso-Kaba; and the FARM project team in Bamako. We sincerely thank those who listened attentively in the interview process. We also wish to thank our key informants, who made contact with the beneficiaries and other project stakeholders. We are sincerely grateful to everyone who made themselves available to provide information vital to the success of this project.

#### About FSPG's series of case studies

In 2019, the Canadian Food Security Policy Group (FSPG) commissioned a series of six case studies to understand how Canadian investments in agriculture support sustainable development outcomes in West Africa. Six case studies of projects supported by Canadian civil society organizations were selected. These projects showcase how such investments support broad sustainable development outcomes such as gender equality, environmental sustainability, climate resilience, improved livelihoods, and enhanced food security. Case studies were informed by literature reviews of project documentation, and interviews and focus group discussions carried out in impacted communities, with research carried out by local research teams supported by Canadian and local partners.

FSPG is a network of Canadian development and humanitarian organizations with expertise in global food systems, and food security in the Global South.

The Institute for Research and Promotion of Alternatives in Development (IRPAD), IRPAD/Africa, is an NGO focused on science and education with several years' experience in rural development. The organization has been contracted for research, training, evaluation and public policy development projects, most notably the Mali Agricultural Land Policy (PFA-Mali), the Mali Agricultural Development Policy (PDA-Mali) and the National Gender Policy of Mali (PNG Mali). IRPAD/Africa supports farmers' organizations in Africa and other continents in the design and implementation of their strategic plans, as well as international organizations in the evaluation and capitalization of their agricultural development programs and projects. IRPAD/Africa was contracted to conduct a case study on the *Baguinéda Integrated Approach*.

**Project at a glance**: Agricultural and Rural Financing in Mali (FARM), *Baguinéda Integrated Approach* Program

The ultimate goal of the project is increased productivity in Mali's agricultural sector. To achieve this, DID and SOCODEVI have implemented an agricultural financing strategy based on: i) the professionalization of financial institutions; ii) the implementation of a loan guarantee program to encourage the participation of financial institutions in the financing of agriculture; and iii) a crop insurance program to avoid decapitalization among farmers. By developing a range of secure financial services, access to agricultural credit will be improved and agricultural entrepreneurship, as well as the creation of jobs in the agrifood sector, will be stimulated. The project will have four immediate results:

- 1. Increasing the capacity of financial institutions to finance agriculture
- 2. Optimizing stakeholder coordination at the value chain level
- 3. Improved access to financial protection mechanisms for farmers and financial institutions
- 4. Increased integration of women and young people into agricultural activity while promoting sustainable development and gender equity

The Baguinéda Integrated Approach is a holistic approach born out of an initiative of the FARM project in order to allow women farmers to improve their financial autonomy using different leveraging strategies.

Canadian partner: DID and SOCODEVI

**Local partners**: Ministry of Foreign Affairs, Trade and Development; Ministry of Economy and Finance; Ministry of Investment Promotion and the Private Sector; Ministry for Rural Development; participating financial institutions; Professional Association of Decentralized Financial Systems; participating insurance companies; farmers' organizations; other ongoing projects

FARM project budget: \$18,110,000 CAD

\$300,000 CAD \$18,410,000 CAD

**Duration**: 2014–2021

Project location: Baguinéda

Participants: Women onion farmers

Value chain: Onion

**Key objectives:** Increased productivity in Mali's agricultural sector in the regions of Ségou, Sikasso and Koulikoro and the district of Bamako.

Sustainable development goals addressed: No poverty, zero hunger, gender equality,

climate action

## Understanding the investment context in Mali's agricultural sector

Mali has significant agricultural potential: the agricultural sector represents a third of its gross domestic product (GDP).

Shallots and onions are grown in three main areas of Mali: Office du Niger, Dogon country, and the peri-urban area of Bamako (Kati and Koulikoro). As a result, the Ségou region constitutes the largest shallot and onion production basin in Mali (62%), followed by the Koulikoro region (13%), Mopti (11%), Sikasso (6%), and finally, Timbuktu (5%)¹. The production system is centred around small, individual family farms primarily run by women and young people. Farming is generally done in the off-season, during production cycles from November to April. The sector is dominated by private stakeholders (smallholder farmers or processing and marketing companies). Stakeholders often form farmers' organizations (FO), which are either formal or informal collectives of rural and agricultural stakeholders who work together to represent community interests and perform functions that may be beyond the capacity of their individual members². According to the *Analyse du marché et du développement de la filière fruit et légumes au Mali* – Market and Development Analysis of Mali's Fruit and Vegetable Sector (2018), Mali's onion sector is facing significant challenges that affect self-financing, including weak human resources practices, insufficient basic infrastructure (a lack of infrastructure and weak business growth after financing), and the import of cheap onions into the market³.

The Baguinéda area is located in an irrigated land basin with land used for growing rice in the winter and onions in the off-season. These conditions are favourable to women farmers, most of whom are not landowners in this area.

Mali has an estimated 2.2 million hectares of easily irrigable land, including nearly 1.8 million hectares in the Niger River valley alone. Despite this incredible potential, it is estimated that only 369,000 hectares is developed, which represents a mere 17% of total irrigable land. Irrigation is essential for the cultivation of rice, sugar cane (7,000 hectares in the Office du Niger) and market vegetables such as onions and shallots. Irrigated crops also play an important role in meeting the food needs of populations facing recurrent food crises. The diversification of agricultural production can increase income security for food producers and improve the utilization of available water resources.

<sup>&</sup>lt;sup>1</sup> NIRAS Final Report, Paul ONIBON, *Analyse du marché et du développement de la filière fruit et légumes au Mali* (Market and Development Analysis of Mali's Fruit and Vegetable Sector), May 2018, Bamako Mali.

<sup>&</sup>lt;sup>2</sup>TradeFarmer. Understanding farmers' organizations in Africa. Website: <a href="https://tradefarmer.wordpress.com/2014/02/01/comprendre-les-organisations-paysannes-en-afrique/">https://tradefarmer.wordpress.com/2014/02/01/comprendre-les-organisations-paysannes-en-afrique/</a>

<sup>&</sup>lt;sup>3</sup> NIRAS Final Report, Paul ONIBON, *Analyse du marché et du développement de la filière fruit et légumes au Mali* (Market and Development Analysis of Mali's Fruit and Vegetable Sector), May 2018, Bamako Mali. Website: <a href="https://www.dngr.gouv.ml/fileadmin/user-upload/Rapport-Final-Fili%C3%A8re-fruits-et-le%CC%81qumes.pdf">https://www.dngr.gouv.ml/fileadmin/user-upload/Rapport-Final-Fili%C3%A8re-fruits-et-le%CC%81qumes.pdf</a>

#### **About FARM**

The *Financement agricole et rural au Mali* – Agricultural and Rural Financing in Mali (FARM) project is the result of a Contribution Agreement signed on September 30, 2014 between Global Affairs Canada and the DID-SOCODEVI consortium.

Développement international Desjardins (DID) is a world leader in the development and implementation of inclusive finance in developing and emerging nations. FARM, through SOCODEVI, is an innovative pilot project focusing on the specific needs of women in the agricultural value chain and targeting the onion growing sector, in which Malian women are very active. Ultimately, the goal of the project is to increase "the productivity of the Malian agricultural sector in the regions of Ségou, Sikasso and Koulikoro and the district of Bamako."

There is a high percentage of women in Mali's onion sector, unlike other sectors such as rice, millet, corn and cotton. This is the main reason why Baguinéda was selected for this project.

The Baguinéda approach is "based on the FARM project's theory of change", which is intended to be participatory and interactive. Several elements are critical in this theory:

- Actions to build women's self-esteem are implemented
- Women have access to a range of suitable financial products and services, and are able to control their use and related benefits
- A constructive dialogue is undertaken between different stakeholders<sup>4</sup>

As a result of implementing the above, the activities of the FARM project are more likely to socio-economically empower women. The "integrated" aspect of the FARM project involves the following components, namely:

- Financing
- Value chain
- Risk management
- Environment
- Gender equality

FARM seeks to increase the capacity of women to participate in their communities through financial education; the implementation of sound agricultural and environmental practices, such as agricultural waste management; the establishment of relationships and negotiation with value chain stakeholders; governance; and community life. Addressed in more detail in the upcoming sections, project activities include training women FO leaders in leadership, public speaking, adult education, business plans and community life. Women facilitators then in turn replicate the training on a larger scale.

Subsequently, the project, through its theory of change, facilitates access to and use of financial services and products, including:

- Savings products
- Credit products
- Crop insurance

<sup>&</sup>lt;sup>4</sup> Activity report, Assurance-récolte collective indicielle rendement-oignon – Crop Insurance Collective Index Yield – Onion, Ministry of Agriculture, Mali, June 2019.

#### • "Mobile finance" training<sup>5</sup>

FARM is an innovative project because it draws from women's lived experiences, encouraging growth and offering ways to reduce barriers that prevent women from saving, using effective farming practices, and managing and thriving in their communities.

In order to align with Canada's new Feminist International Assistance Policy, a gender equality strategy of 11 initiatives aimed at the economic empowerment of women in rural areas has been implemented. Because several activities arising from these initiatives have already been carried out in the Baguinéda region, it is likely that the FARM project's integrative approach will be successful, given that it integrates all of the elements of the agricultural value chain, "from field to plate". By the end of the project in March 2021, the project aims to assess the impact of this approach on strengthening the socio-economic power of women farmers in 22 women's farmers' organizations (FOs) in Baguinéda<sup>6</sup>.

<sup>5</sup> FSPG Case Study: Description of the Baguinéda Integrated Approach, FARM Project, DID, October 2019.

<sup>&</sup>lt;sup>6</sup> FSPG Case Study: Description of the Baguinéda Integrated Approach, FARM Project, DID, October 2019.

THE SOCIO-ECONOMIC EMPOWERMENT OF WOMEN ONION FARMERS IN BAGUINÉDA ACCESS TO AND USE OF FINANCIAL **PRODUCTS & SERVICES** ABILITY OF WOMEN TO ACT IN THEIR COMMUNITIES **FINANCIAL EDUCATION** GOVERNANCE & COMMUNITY LIFE PRODUCTS GOOD AGRICULTURAL **NEGOTIATING WITH VALUE** AND ENVIRONMENTAL CHAIN STAKEHOLDERS PRACTICES **CROP INSURANCE** SAVINGS

Figure 1: Implementation of the Baguinéda Integrated Approach

Image credit: DID, 2019.

## Research approach and focus

In the context of this case study, the mandate of the Institute for Research and Promotion of Alternatives in Development (IRPAD) is to examine how agricultural investments contribute to the realization of Canada's Feminist International Assistance Policy (FIAP), in particular by contributing to gender equality, inclusive growth, climate resilience and Canada's achievement of the Sustainable Development Goals (SDGs).

Desjardins

(Socodevi Canada

This research was conducted according to "facilitation logic", a process carried out by the participants themselves, at the national, local and beneficiary levels. The research was carried out in two phases: first, by reviewing secondary data documentation, and then by gathering information from stakeholders in the field. Using a methodological approach inspired by the Group Analysis Method – *Méthode d'analyse en groupe*, particular emphasis was placed on inclusiveness, while strictly adhering to gender equality guidelines when considering and

analyzing significant stories.<sup>7</sup> For the FARM project, the research team mainly focused on women's farmers' organizations, women leaders, OPIB leaders, banks (BNDA), input suppliers, the insurance company Allianz, and the FARM project team.

During the data collection period in the field, two reference methods were used to achieve the outcomes of this case study:

- 1. Individual and/or three-person interviews with a selection of representative samples (5 men and 5 women)
- 2. Writing of individual micro-stories (4 women's stories and 2 men's stories) from key informant suggestions

All focus groups and individual interviews were organized according to targeted groups and the availability of stakeholders. With regard to individual and three-person interviews, in particular, weight was given to personal reflection—feedback and lived experiences—as well as critical and future-oriented analysis that was inspired by participants' lived experiences.

In total, 61 individuals—five men and 56 women—were interviewed in the three villages selected for this project, including OPIB staff and members of the FARM project team. Four focus groups and 10 individual interviews were organized in Baguinéda (5), Bamako (6), Massakoni, Kobalacoura (2) and Kognimba (1).

Finally, due to the COVID-19 pandemic situation and restrictions on physical contact, the data recovery and validation stage in the field in the Baguinéda area was completed by the research team through phone calls and messages. All data and information provided in this way have been reviewed and approved by the team, and have been authorized to be used in this report. Confirmation of this information by the DID team was done by delivering an earlier version of the report, as well as by contributions throughout the research and writing process.

## Transformative investment in agriculture

#### FARM has empowered women.

Confidence, autonomy and women's empowerment

With onion cultivation being a practice dominated by women, the project restored confidence to women in the sector, while at the same time developing their capabilities through diverse training opportunities.

In the first year of support, the project targeted 10<sup>8</sup> villages, and in the second year, 12 more were targeted, for a total of 22. Capacity building activities in the areas of technical and cultural expertise as well as financial and environmental education, among others, were implemented to benefit women farmers and OPIB leaders. In addition, the project selected two women leaders in each village to train in Baguinéda, with the aim of them returning to their respective communities with newly acquired knowledge and skills.

<sup>&</sup>lt;sup>7</sup> Analysis method used in sociology that brings together a dozen or so individuals for a one- or two-day workshop where stories of and experiences are considered (Van Campenhout, L. et al. (2005). *La méthode d'analyse en groupe. Applications aux phénomènes sociaux.* Paris: Dunod)

<sup>&</sup>lt;sup>8</sup> This number will increase to 22 with the selection of 12 more villages to be supported by the project this year.

A woman belonging to the Benkola cooperative testifies to the impacts from the training:

"Yes, [before] the women were not informed of certain meetings in the village; now there is no discrimination between men and women."

Women are now capable of managing both their finances and harvests, and are even sought out for advice. They are also much more financially independent now, and have time to become involved in community activities. This has greatly contributed to changes in men's behaviour towards them. As a result of the Baguinéda Integrated Approach, women's FOs are more capable and have better control over their income and better access to agricultural inputs. Women's perspectives are also heard more because they are now able to express themselves in public thanks to training in public speaking and managing financial stress.

## The Baguinéda Integrated Approach enabled women to learn the basics of financial education.

To improve the knowledge, skills and leadership of women farmers, financial education content developed around five (5) themes was provided to women. This education includes the following modules: the profitability of income-generating activities (IGA); managing financial stress and the unexpected; credit; the advantages of opening a bank account; and crop insurance.

With this training, women leaders were deliberately targeted to relay information to their respective communities by hosting panel discussions with other women in their villages. Rather than bringing in outside facilitators, organization leaders were identified to lead panel discussions, while being supported by OPIB facilitators. In this context, 25 OPIB leaders and facilitators received training on leadership, public speaking, communication and adult education<sup>9</sup>. In 2018, over 200 training sessions were conducted for 869 rural women beneficiaries from ten villages in Baguinéda<sup>10</sup>. This has enabled women to better understand and exercise control over their work and their communities. The training will seek to reach more women, but will also involve men in order to ensure sustainability in an environment that can potentially be hostile to change.

Through the training programs, women learned appropriate ways to plan and manage expenses. Before FARM, women did not always have a clear understanding of what they were undertaking. Now, expenses are calculated and prices are fixed ahead of time, which allow them to put their profits towards other things. The process also brought about renewed vision and gave women leaders new ideas for ways to support FOs.

Thanks to financial training, women in Baguinéda now understand that they can reduce certain unnecessary expenses, so they are better able to mobilize resources to make farming profitable. Women have adopted new habits as a result acquiring new knowledge: for example, there is a group that meets every Friday to view videos on best practices in crop management, spending and profit calculation.

<sup>10</sup> FSPB case study: Baguinéda Integrated Approach, FARM project, DID October 2019.

-

<sup>&</sup>lt;sup>9</sup> The Irrigated Perimeter Office of Baguinéda (OPIB) is a state structure. To better plan the interventions of the FARM project in this region, a partner agreement was signed with OPIB covering a period of 12 months starting in October 2018.

#### The Baguinéda integrated project has enabled women to become better leaders.

#### New knowledge gained

Women's FOs are better organized because they benefit from and are supported through regular training on managing income as well as on the roles and responsibilities of both new and experienced members of the cooperative.

Disagreements in women's FOs have also been reduced, thanks to FARM. Prior to the FARM project, disagreements were common in women's FOs mainly due to ignorance of association operating principles. Lack of financial planning and crop calculations also added to the frustration.

Women have now gained a better understanding of capacity building programs in several areas relating to agriculture, such as good farming techniques, community life, agricultural waste management, and climate change. FARM supported women's farmers' associations to transform themselves into cooperatives.

One of the improvements observed in the beneficiary communities was in women's ability to express themselves in public. An OPIB facilitator gave the example of a woman who previously had difficulty expressing herself in public, and who, after several "project training sessions on public speaking, expressed herself [more] eloquently during a FARM follow-up assignment."

A member of the Yiriwaton cooperative reported that "speaking in public was difficult for [her], [and that] thanks to the training program taken during the project, it is easier for her to speak in public now."

Local technical knowledge and creation of partnerships

Women's FO members have adopted the approach and techniques of the Baguinéda integrated project through various meetings organized; as a result, their knowledge and skills have been highly valued by others in the community. Members now understand that starting crops early has a positive impact on their overall yield: a noteworthy achievement resulting in new crop management and collaboration skills.

Thanks to this progress, women farmers are now requesting additional help from the FARM project to maximize their daily work even more. The women collectively expressed a desire for continued support from the FARM project, given the positive results to date. A woman from Massakoni says: "We need more help from FARM because there is still so much more to learn. We have left behind our lack of knowledge and know-how and now have something more positive. For example, spraying crops was not a common practice among us farmers, but we do it now and it has resulted in changes to our yields."

The women also said that though they appreciated the support from FARM, they would still like support acquiring farming equipment (solar pumps, dryers, sheds, storehouses for onions, etc.)

#### FARM involved men to contribute to gender equality and women's empowerment.

FARM also engaged the men in the communities impacted by the project, and contributed to changes in their behaviour towards women and their roles in farming activities. Before the project, women were neither listened to nor supported in their daily work. Now there are some men onion

growers who help women in their cultivation of onions. A woman from of the Benkadi cooperative said:

"Before, we cultivated at random and had no fields. Now our husbands give us land and help us with the farming."

Indeed, in the beginning, men refused to allow women to cultivate onions in the rice fields. After seeing women make additional income from land accessed through FARM, however, some men realized that women could and should also benefit from income from farming fertile land. Following this change in perception of the role of women and in potential income in certain localities, the village chief designated a male leader to support the needs of women and to engage other village men in onion farming. Seventy men were involved in various training sessions. Being leaders and supporters has helped break down socio-cultural and gender barriers that previously hindered capacity building and women's empowerment. It should be noted that despite resistance from some men at the start of the project, the combination of raising awareness and the involvement of some men who set an example helped overcome obstacles to participation.

## The Baguinéda integrated project introduced financial products and services specifically geared towards women.

The goal of these activities was to reduce barriers connected to product supply and services available to women farmers in the Baguinéda area. Several educational videos on various topics were produced and broadcast regularly in national languages. The videos made it easier for women to understand the topics, even for those who did not have access to an educational environment.

#### Credit products

BNDA<sup>11</sup> was retained to offer credit services. The FARM project was committed to financing a kit of inputs<sup>12</sup> to benefit Baguinéda cooperatives. This was despite the reluctance of financial institutions to finance small farms, like in Baguinéda, where there are very small land areas under cultivation.

After being selected for the pilot phase of credit product implementation, BNDA experimented during the 2019-2020 season with an FO made up of 60 women. Even still, suppliers are increasingly reluctant to offer seeds and fertilizers on credit.

Below is a diagram illustrating the Input Credit for Women Onion Farmers – *Crédit intrants pour les femmes productrices d'oignons* (CIFO).

<sup>&</sup>lt;sup>11</sup> National Bank for Agricultural Development – Banque nationale de développement agricole

<sup>&</sup>lt;sup>12</sup> Kit consisting of certified treated seeds, fungicides, pesticides, insecticides, fertilizers, technical monitoring and crop insurance (see CIFO).

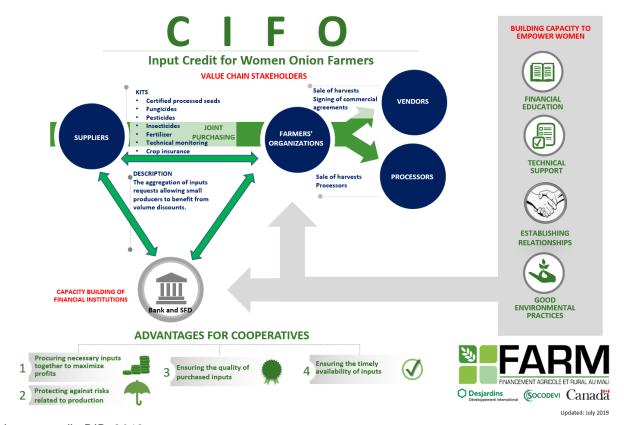


Image credit: DID, 2019

#### Savings products

In conjunction with OPIB, the ten FOs supported by the FARM project opened accounts with BNDA in 2018. Certain activities had a motivating effect on women's groups, in particular the creation of panel discussions on the benefits of opening a bank account.

#### Crop insurance

Crop insurance is an innovative financial product that allows farmers to better manage their risks by purchasing group insurance that will compensate farmers when their yields are lower than in the past. A total of 405 women out of 741 benefitted from group crop insurance during the 2017-2018 counter-season without having to pay the insurance premium. The FARM project made the decision to pay the premium for women in one area in particular in order to mitigate the effects of non-compensation for women with low individual returns. This was done to increase the women's confidence in crop insurance. For the 2018-2019 season, there were 989 members, including 749 women who paid the insurance premium<sup>13</sup>.

FARM favored the financial inclusion of certain women onion farmers who harvested good crops during the 2018-2019 season as a result of new farming techniques. However, some women experienced poor harvests<sup>14</sup> and they expressed great discontent about not receiving an insurance pay-out in 2018. This suggests a misunderstanding with how crop insurance works.

<sup>&</sup>lt;sup>13</sup> FSPG Case Study: Description of the Baguinéda Integrated Approach, FARM Project, DID, October 2019.

<sup>&</sup>lt;sup>14</sup> "The yields were very irregular, varying between 3 and 30 tonnes per hectare," interview with Jonathan Boudreau, DID.

Their lack of experience with crop insurance led to unrealistic expectations. The women mistakenly understood that insurance coverage would be in effect even in the event of individual crop losses, while it actually only covers collective losses. In response to their apprehension around this, the FARM project ensured free payment of the insurance premium in 2019.

#### Interview with DID (headquarters) crop insurance manager, Jonathan Boudreau

"During the 2018-2019 counter-season, we monitored 52 women onion farmers in a production area managed by OPIB. These farmers were selected by random draw among the insured. Analysis of the survey forms and data does not show any natural or climatic phenomena that would have affected production levels. Of the 52 farmers surveyed, 28 obtained a yield above the triggering threshold for an insurance indemnity. The average was 15 tonnes per hectare, which is close to normal.

"Yields were very irregular though, varying between 3 and 30 tonnes per hectare, regardless of the location of the plots. Generally, there were gaps in terms of compliance with the technical itinerary: sowing dates were not respected, prescribed fertilizations and treatments were not carried out, and there was a high rate of grass cover in the plots, which caused production problems (diseases and loss of quality onions).

"Information collected from the implementation of the insurance program has helped inform decision-making for the area. Several lessons have been learned: (1) There is a need to strengthen technical monitoring. The ability to finance and utilize the complete set of inputs will enhance the management of production risks for non-climatic and uncontrollable events, which are not covered by insurance; (2) Financial education must be continued, emphasizing the collective nature of crop insurance. There is no compensation for individual losses. For there to be compensation, there must be a loss affecting all producers in the area. It is a difficult concept to accept for someone who has had a difficult year and sees that they are not the only one affected.

"Because last year's results were disputed by some producers, actions have been taken to ensure that the insurance program generates a higher level of satisfaction in 2019-2020. The insurance area has been subdivided into 9 subsectors and the assessment of returns will be carried out independently for each of these subsectors. In addition, the number of surveyed farmers is increasing from 52 to 108 in order to obtain an evaluation closer to the reality experienced by each producer."

#### FARM helped women access fertile land and agricultural inputs.

The project contributed to access and control of resources such as land and agricultural inputs. Some women saw their income increase as a result of a better harvest during the 2018 season.

Connecting and negotiating with stakeholders in the value chain

During the survey period, four major challenges that interfere with onion cultivation were identified:

- 1) timely access to quality inputs;
- 2) mastery of cultivation management techniques;

- 3) lack of resources to allocate agricultural inputs and tools; and
- 4) poor access to remunerative markets.

Increasingly, women onion farmers are seeking support from the FARM project to acquire quality seeds and to connect with onion buyers. To address this, a commercial networking workshop was organized between 90 women farmers from 10 women's organizations and 4 companies supplying inputs to Bamako. After several negotiations, 13 formal agreements were signed and concluded with these suppliers. As a result, onion producers gained access to quality seeds and fertilizer<sup>15</sup>.

To support marketing following the harvest, women and wholesale traders were introduced. The majority of women surveyed indicated that they strongly desired to continue these relationships, but they know that this will depend on next year's harvests.

A member of a women's cooperative stated, "Before, we worked without planning. Now we do calculations before we start growing and we know if we will gain a profit or not."

Input supplier Faso Kaba reported changes and increased confidence among the women: "There has been a change in our habits; we never had a system of supplying our seeds or fertilizers on credit. With the FARM project, farmers are more confident and are also easily able to make the credit payment after their crops are sold."

#### Improved livelihoods

#### FARM enabled FOs to be formalized as women's cooperatives.

The FARM project is perceived by the population surveyed as a source of inspiration for all women's FOs. Because the project supports rural women, it has been possible to focus on the needs of women at the organizational and financial levels. This has enabled women to voice their capacity-building needs around key themes such as public speaking, managing financial stress, new farming techniques, and more. One survey respondent in Baguinéda said:

"We welcome this project because now we participate in several types of meetings in Bamako, which was not the case before. We have a better understanding of the internal workings of associations and we have gained know-how in the field of market gardening. We can better manage the financial resources made available to us. Onion cultivation is improving and we have been put in contact with banks."

Indeed, a dozen associations were supported by FARM and subsequently turned into cooperatives following the organizational diagnosis and undertaking the change process into cooperative associations. This allowed women to open bank accounts.

The women's groups interviewed for the survey recognized the value of working in cooperatives and said that an organization better helps its members through the exchange of ideas. The distribution of fertilizers and seeds for each member contributed to improved production capacity. This approach is also tailored to women's specific situations as they are now able to gain access to funding.

<sup>&</sup>lt;sup>15</sup> FSPG Case Study: Description of the Baguinéda integrated approach, FARM Project, DID, October 2019.

This strategy also helped women better cope financially. Before the project, they often experienced a lack of resources at the time of payment. Some women said that now in these situations, the organization uses money from the fund that is replenished by members who consistently give their approval for disbursement. FARM's approach is therefore a lifeline for women who generally do not have sufficient resources to meet production needs and, above all, who do not have the necessary collateral to access credit. A member of one cooperative affirmed: "The money we have must be used to manage our field. If we use it for seeds, what will we do next?"

The support from OPIB has enabled ten female FOs to be transformed into associations. Additionally, the local NGO COCECM supported associations to be transformed into cooperatives. These cooperatives are now supervised by women organizers from OPIB, who are seen as primary partners supporting ongoing activities on a daily basis. Women are also encouraged throughout the year to provide input on cropping schedules, choice of agricultural inputs, and phytosanitary treatments for crops.

Similarly, women farmers spoke of the need to familiarize themselves with the practices and principles of cooperative operation and management according to OHADA standards. If good governance principles already exist, then there is a desire for more training in cooperative management.

Despite the many benefits of cooperatives, women cited disadvantages such as a lack of farming equipment, a shortage of collective land and processing centres<sup>16</sup>, and an inability to preserve agricultural products to better manage production.

They also reported that there was no adequate place to meet, for example a hangar with chairs, that would allow them to share and learn together. The women who participated in the survey also requested the implementation of security measures for their land to avoid equipment theft, improved water supply, and greater value for their products.

To further improve FARM's interventions, and give more visibility and increase legitimacy to Baguinéda cooperatives, it was important to make quality seeds and fertilizer available, since they had been requested by the women. The women surveyed also emphasized the importance of timely access to inputs.

#### FARM improved the supply chain.

Through the FARM intervention, the supply chain has been simplified because women have connected directly with input suppliers as well as financial and insurance services. They have also gained a better understanding of the operations of cooperatives and of the benefits of crop insurance. This approach has been beneficial for women's groups who say that they now have access to credit<sup>17</sup>. In fact, they also now receive onion seeds and fertilizer from suppliers, who in turn are in contact with banks, in particular BNDA, which grants credit to women's cooperatives to cover their agricultural input needs, as was done in November 2019.

In 2019, arrangements were made to address any challenges cooperatives were experiencing in the input supply chain from the year before, such as changing suppliers and reviewing harvesting

<sup>&</sup>lt;sup>16</sup> A processing centre or unit for onions (drying, smoking, etc.)

<sup>&</sup>lt;sup>17</sup> Thanks to better knowledge of farming techniques and the supply of agricultural inputs on credit

schedules. FARM's approach has helped build trust between new suppliers and groups of women who are unable to obtain inputs on credit from their usual suppliers.

### FARM has substantially increased income for women.

Increasing income for women onion farmers is the reason the project was initially implemented. In 2018, the FARM project increased the income of some women farmers, who saw their production increase by more than 50% in the same year<sup>18</sup>.

In Mali, especially in rural areas, an increase in a woman's income can only have positive effects. The women who participated in the Kobalacoura survey said:

"At home, it is the woman who takes care of child care and food needs. Earning more income allows women to help their husbands cover family expenses. The woman's income provides greater financial independence, promotes family harmony and helps take care of children."

#### FARM has ensured sustainable access to the market.

FARM has ensured market access for women onion farmers; however, they were not satisfied with the prices offered by buyers. One woman farmer explains:

"If we sell our onions at low prices, there would be no foreign interest in our products. If we keep them, our onions will rot because we don't have a preservation system and we don't have access to foreign markets."

Another woman farmer from Kognimba said:

"FARM must continue to put us in contact with markets and wholesalers."

Agricultural production flow should be strengthened and conservation tools such as warehouses and drying and processing tools should be introduced, says another woman farmer.

## Practices related to the environment and climate change

#### FARM promotes good agricultural and environmental practices.

The FARM project encouraged women to follow and monitor technical itineraries, production costs, production, post-production techniques, and to use reference tools. This information was shared during a workshop organized in October 2018, to which more than sixty onion sector stakeholders were invited, including women leaders, farmers' organizations and OPIB leaders. It is essential that this knowledge be shared through other workshops like the one in October 2018, and that the impact of these practices be assessed as soon as possible to tailor the information to local conditions.

In the communities that participated in the survey, certain practices related to climate change were adopted, like increasing the use of organic manure, seeking out quality local seeds, and using adapted phytosanitary treatment products<sup>19</sup>.

<sup>&</sup>lt;sup>18</sup> Interview with Sidy Lamine Coulibaly, crop insurance analyst, FARM team, Bamako, November 2019.

<sup>&</sup>lt;sup>19</sup> Interview with Maiga Mariame Togo, gender equality advisor; FARM team, Bamako, November 2019.

The project has increased the capacity of cooperatives to restore and protect degraded lands with the increased use of organic manure. This has made it possible to create partnerships with potential suppliers of organic manure, such as the companies *Éléphants verts* and PROFEBA.

OPIB leaders made it clear that it is essential to have timely access to seeds, nurseries, and organic manure. They said that with proper monitoring of OPIB guidelines for good farming techniques, women were able to harvest good crops. Concrete examples abound of the positive changes made through FARM: training sessions according to the farming calendar, new seed access techniques, setting up nurseries, and transplanting techniques until harvest, to name a few<sup>20</sup>.

#### FARM strengthens climate resilience of communities.

Some women farmers experienced poor harvests in 2018, while others were able to produce good crops, despite the fact that they were all cultivating their crops in the same area. This was mainly due to climate change effects on soil quality and the lack of skill related to cropping schedules. Fortunately, FARM sponsored crop insurance for the farmers, which enabled the women involved to benefit from the crop insurance premium payment in 2019.

FARM has also contributed to the protection of women in the context of climate change through the establishment of crop insurance. Despite some challenges at first, the women have now adopted sustainable farming practices, like producing and using organic manure, seeking out local quality and soil-adapted seeds, and treating crops at the times indicated on the farming calendar, all the while knowing that insurance was in place. It is important to note here that the preventative measures taken, such as crop insurance, combined with sustainable practices, give women the confidence and skills to mitigate the effects of climate change on the onion sector.

## **Contributing to food security**

FARM's activities have better equipped women to withstand climate shocks and financial stress, among other things, and to expect better yields because they have mastered farming techniques and cropping schedules. Women onion farmers have seen their incomes increase and they now have more control over their resources. Through the production and marketing of onions, women have been able to save money to support their families and meet their own needs.

One woman in Massakoni says: "The women who harvested well last year made a lot of money: it goes without saying that they can keep their children in school, meet health care costs and better feed their families." Another woman explains: "Household food costs rest mainly on us women. Men contribute what they can, but we are the ones who supplement the cost of food purchases and we use all our income to feed our families."

Therefore, the fact that FARM is targeting the economic empowerment of women also impacts household food security.

<sup>&</sup>lt;sup>20</sup> Focus group with sector facilitators 1, 2, 3, and 4 from OPIB, Baguinéda, November 2019.

#### **Lessons Learned**

• Men are effective agents of change in women's economic empowerment in patriarchal cultures.

Interventions that prioritize enhancing roles for women succeed in environments that support women's empowerment. Bringing education and awareness to both men and women is also key to changing attitudes that hinder the successful participation of women in agriculture, especially in the onion sector. By changing attitudes, women gain access to productive resources, like land, and they are supported in their endeavours. This gives women the opportunity to engage in other productive activities to support their families. One of the main lessons to be learned is that the participation of men is important for projects and initiatives that seek to advance women.

 Interventions that target barriers to women's economic emancipation succeed when capacity development and long-term sustainable partnerships are rooted in local market conditions.

Improving women's financial knowledge enables their economic empowerment and strengthens their leadership in the local community. The FARM project has contributed to improving the capacity of women farmers through the training offered. Women are now equipped to speak in public, apply new farming techniques, calculate production costs and profits, source organic manure and better manage their income. Likewise, the women of Baguinéda better understand the member's role in an organization.

• Cooperatives offer the possibility to mobilize communities and to better direct women members.

Investments in women's farmers' organizations support the capacity of local farming communities to adopt new technologies and entrepreneurial skills. Women now have the opportunity to share their skills and successes. In addition, women's farmers' organizations that have been transformed into cooperatives should be equipped with knowledge to manage the cooperative, necessary agricultural products, and suitable meeting places.

• Improving beneficiaries' access to markets and ongoing assessment ensure that activities generate local demand for market garden produce including onions.

Connecting with buyers at local and national levels is a challenge in allowing women to reap the benefits of their hard work. Providing women opportunities to sell their products is necessary to increase their economic empowerment. This requires an ongoing assessment of local supply and demand in the onion sector.

• Projects can have a lasting impact when they take into account the political context and the risks of the targeted project area.

Baguinéda faces the same peace and security challenges as Mali's other regions. In this context one sees increasing poverty, rising food prices, loss of human life, and the mistreatment of women, who often must become heads of families out of necessity rather than by choice. Baguinéda did not receive humanitarian aid in 2018 and 2019, but did in 2017, when grains were distributed to compensate for lost crops. Onion production, which is the main income-generating

activity for rural women in the area, is an asset to be protected in a context of socio-political and economic instability.

• Educating and raising women's awareness is helping to change attitudes that hinder the successful participation of women in the agricultural sector.

With the new knowledge gained through the FARM project, women have become agents of change in their respective communities. They now understand the basics of farming activity and have gained confidence for public speaking. This has increased their self-esteem and self-expression when communicating in public, especially when communicating with men who are ready to support them in everything they do.

• Investments in women's farmers' organizations support the ability of local communities to address climate change.

Thanks to FARM, women farmers have acquired new climate resilience skills to adapt to an environment normally susceptible to climatic variations. Following cropping schedules and technical itineraries, adopting good environmental practices, using appropriate inputs, and applying phytosanitary treatment techniques have all given women's organizations (cooperatives) the ability to minimize the effects of climate change on their crops.

• Improving women's financial abilities fosters household food security.

FARM's support has enabled many women farmers to harvest better crops and benefit from marketing their produce. The income from this has a direct effect on "the housewife's food basket."<sup>21</sup> Women farmers were able to obtain additional income to meet family expenses, particularly food for their families.

20

<sup>&</sup>lt;sup>21</sup> Expression to indicate the financial resources that allow women to buy the food necessary for their families. In Malian society, women receive money from men to buy and cook food, and often they have to fend for themselves.

#### Conclusion

The FARM project has spearheaded several innovative approaches, notably the transformation of women's FOs into cooperatives, the participatory distribution of quality seeds, the financial education of women farmers, and the establishment of connections with banks and insurance companies. Now, women are more familiar with the farming calendar and are learning more and more about best agricultural practices.

Women admitted that before the FARM intervention, they did not fully understand the farming calendar or cultivation techniques, and they did not know how to calculate or assess the benefits of a harvest. Some women described the time before the project as "darkness" and reported that FARM helped them discover "the light" of knowledge. Today, there are women who are proud to speak in public when, just a short time ago, this relatively simple act was a source of anxiety and stress for them. The FARM project has had many undeniable benefits among women farmers, including successfully learning good agricultural practices, gaining financial education, acquiring leadership skills and being able to manage financial stress. Prior to this, these women had no opportunity to receive this kind of direction. Furthermore, the creation of the CIFO credit product is very promising, and the financial partner, BNDA, now wishes to continue in this direction, financing more FOs during the next campaign.

Notwithstanding the sustainability of FARM's interventions and the expertise that has been acquired by women farmers, certain recommendations have been made.

#### Recommendations

Based on discussions with beneficiaries and observations of the research team, the following recommendations are being made to civil society organizations wishing to carry out similar interventions in the field:

• Engage men as "champions" in rural communities committed to gender equality.

FARM worked exclusively with women in the implementation of this initiative. The measures carried out in terms of awareness, however, enabled men to support their wives or mothers in carrying out production, transport and marketing activities. The implementation of production measures has revealed the need to have the support of men in the area, not only to succeed in the initiative, but also to ensure the changes are long-lasting. It is therefore necessary, in this context, to explicitly choose a few male "champions" committed to gender equality and working to implement the intended social change agenda. Their role will be to instill the importance of gender equality in other men's attitudes and to give confidence to women.

• Adopt holistic approaches to support women farmers, including access to credit, inputs, and training, and support for marketing their products.

FARM's implementation involved sharing kits, technical skills, and other important information with women in Baguinéda. This approach made it possible to achieve the project's intended outcomes: improving production, testing certain tools such as crop insurance, and delivering financial education, among others. Such an approach, even if it must be better implemented to have the maximum impact, demonstrates the need to holistically support women's initiatives both

upstream and downstream of production (in this case, onion). This approach facilitates the scaling up of outcomes. In addition to a holistic approach, support for marketing would be a beneficial addition. In fact, at the time of this report, the project is working to improve on this aspect and is investigating ways to better support women in selling their harvest and in negotiating better prices—but more emphasis on this is advised.

• Focus on increasing the competitiveness of women to improve their livelihoods.

FARM has worked to improve the financial knowledge base of women by providing them with kits and other financial tools. The purpose of this approach is to improve the competitiveness of women in onion production and marketing. Such an option makes it possible to create the foundational conditions needed to ensure that household livelihoods for women are supported in a sustainable manner, and the appropriate conditions are created to achieve this.

 Establish strategic partnerships with state and non-state stakeholders at the local level to prompt systemic and sustainable changes at the national level that challenge structural barriers to the economic empowerment of women.

FARM has fostered the conditions necessary for the creation of spaces for partnerships with various stakeholders, in particular banks, input suppliers, and training facilitators. This enhances the development of women's activities with the goal of sustained empowerment.

#### References

Case Studies Report, Greater Rural Opportunities for Women (GROW), December 2019.

DID, FSPG Case Study: Description of the Baguinéda Integrated Approach, FARM Project, October 2019.

FARM, Annual Report 2018-2019 Agricultural and Rural Financing in Mali (FARM) Project, April 2019.

MIRAS Paul ONIBON, Final report, *Analyse du marché et du développement de la filière fruit et légumes au Mali* (Market and Development Analysis of Mali's Fruit and Vegetable Sector), CNPM, May 2018.

ONATE Salif, Country report, Farmers' Organizations in West and Central Africa: High Hopes and Harsh Realities, the case of FARM Burkina Faso, IRAM, October 2012.

Annual Report of the Agricultural and Rural Financing in Mali (FARM) Project, April 2019.

Activity report, Assurance-récolte collective indicielle rendement-oignon – Crop Insurance Collective Index Yield – Onion, Ministry of Agriculture, Mali, June 2019.

Rapid diagnostic report of 10 farmer organizations involved in the production and marketing of onions in Baguinéda, September 2018.

Rapid diagnostic report of 12 FOs evolving in the production and marketing of onions in Baguinéda, October 2019.

## Appendix 1

## **List of People Surveyed**

#	Name	Role	Organization	Location	Gender
1.	Mouroucoro Niaré		FARM	Bamako	М
2.	Maiga Mariame Togo	Gender equity advisor	FARM	Bamako	F
3.	Sidi Lamine Coulibaly	Crop insurance analyst	FARM	Bamako	М
4.	Narcisse Soglohoun	Agricultural financing advisor	FARM	Bamako	М
5.	Keita Maimouna Touré	Assistant director	BNDA	Bamako	F
6.	Siaka Coulibaly	Head of training division & rural organization	OPIB	Baguinéda	М
7.	Rokiatou Samaké	Organizer Sector 3	OPIB	Baguinéda	F
8.	Safoula Koné	Organizer Sector 4	ОРІВ	Baguinéda	F
9.	Salimata Dembélé	Organizer Sector 1	OPIB	Baguinéda	F
10.	Kadia Coulibaly	Organizer Sector 2	OPIB	Baguinéda	F
11.	Alou Coulibaly	Input supplier	FASO KABA	Bamako	М
12.	Mah Diarra	President	Yiriwa Ton	Massaconi	F
13.	Sanata Kouyaté	Member	Yiriwa Ton	Massaconi	F
14.	Madeni Kouyaté	Member	Yiriwa Ton	Massaconi	F
15.	Mamou Sidibé	Member	Yiriwa Ton	Massaconi	F
16.	Ramatou Diallo	Member	Yiriwa Ton	Massaconi	F
17.	Oumou Koné	Member	Yiriwa Ton	Massaconi	F

18.	Sitan Sangaré	Member	Yiriwa Ton	Massaconi	F
19.	Minata Samake	Member	Yiriwa Ton	Massaconi	F
20.	Oumou Samaké	Member	Yiriwa Ton	Massaconi	F
21.	Minaté Kané	Member	Yiriwa Ton	Massaconi	F
22.	Fatouma Kanté	Member	Yiriwa Ton	Massaconi	F
23.	Worokia Coulibaly	Member	Yiriwa Ton	Massaconi	F
24.	Hawa Traoré	Member	Yiriwa Ton	Massaconi	F
25.	Fatoumata Samaké	Member	Yiriwa Ton	Massaconi	F
26.	Kodiè Doumbia	President	Benkola	Koyimba	F
27.	Mori mousso Kouyaté	Member	Benkola	Koyimba	F
28.	Hadjara Yossi	Member	Benkola	Koyimba	F
29.	Korotoumou Doumbia	Member	Benkola	Koyimba	F
30.	Fatoumata Yattara	Member	Benkola	Koyimba	F
31.	Djeneba Kané	Member	Benkola	Koyimba	F
32.	Rokia Traoré	Member	Benkola	Koyimba	F
33.	Oumou Samaké	Member	Benkola	Koyimba	F
34.	Hawa Sinayoko	Member	Benkola	Koyimba	F
35.	Oumou Kouyaté	Member	Benkola	Koyimba	F
36.	Mama Coulibaly	Member	Benkola	Koyimba	F
37.	Hawa Samaké	Member	Benkola	Koyimba	F
38.	Fatoumata Camara	Member	Benkola	Koyimba	F
39.	Sitan Diabaté	Member	Benkola	Koyimba	F
40.	Maimouna Traoré	Member	Benkola	Koyimba	F
41.	Hawa Konaté	Member	Benkola	Koyimba	F
42.	Fatoumata Coulibaly	Member	Benkola	Koyimba	F

43.	Djeneba Samaké	Member	Benkola	Koyimba	F
44.	Kadiatou Sinayoko	Member	Benkola	Koyimba	F
45.	Korotoumou Traoré	Member	Benkola	Koyimba	F
46.	Kadia Coulibaly	Member	Benkola	Koyimba	F
47.	Alamissa Diarra	President	Benkadi	Kobalacoura	F
48.	Oumou Samaké	Member	Benkadi	Kobalacoura	F
49.	Kadidiatou Diallo	Member	Benkadi	Kobalacoura	F
50.	Hawa Traoré	Member	Benkadi	Kobalacoura	F
51.	Hawa Diarra	Member	Benkadi	Kobalacoura	F
52.	Alimatou Traoré	Member	Benkadi	Kobalacoura	F
53.	Sokona Diarra	Member	Benkadi	Kobalacoura	F
54.	Kiyatou Coulibaly	Member	Benkadi	Kobalacoura	F
55.	Salimata Diarra	Member	Benkadi	Kobalacoura	F
56.	Oumou Traoré	Member	Benkadi	Kobalacoura	F
57.	Aminata Diarra	Member	Benkadi	Kobalacoura	F
58.	Hawa Fané	Member	Benkadi	Kobalacoura	F
59.	Yaye Guindo	Member	Benkadi	Kobalacoura	F
60.	Kadidiatou Samaké	Member	Benkadi	Kobalacoura	F
61.	Mamou Diabaté	Member	Benkadi	Kobalacoura	F