



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



SENEGAL Naatal Mbay

Cereal Value Chains

CONTRACTING

Cereal producers now have access to open, bank-supported contractual frameworks that allow them to negotiate agreements with local mills and traders. In accordance with flexible contracting principles, producers self-organize to produce quality cereals and banks facilitate price setting and transactions with industrial scale buyers.

2019

INTRODUCTION

The Government of Senegal's plan for an emerging economy (PSE - Plan Sénégal Emergent) identified the development of cereal value chains as a priority for achieving inclusive agricultural development. The Feed the Future initiative aligned with this vision of inclusive cereal value chains. Firstly, through the USAID Economic Growth Project (PCE), then through the Naatal Mbay project, Feed the Future has worked to strengthen rice, maize, and millet smallholder farmers' organizations so they are able to become part of competitive value chains and lucrative markets. Reinventing the contractual framework between buyers and smallholder producers in the particular context of the local cereals market was at the heart of this process.



BACKGROUND

Historically, in Senegal, contracting in the context of smallholder farmers was associated with the major processing and export sectors, in which para-governmental or private organizations created a framework to facilitate access to inputs, technical supervision, mechanized services, and marketing activities. In the case of cotton, the Society for Development and Fiber Textiles (SODEFITEX) offered producers a package of inputs and services in return for their harvest. For industrial tomatoes, factories, producer organizations, technical support services, and banks have been able to create a functional framework to support production and marketing.

However, these models operate in markets where informal trade is structurally limited. In the case of cotton, there is one buyer and local marketing opportunities are minimal. In the case of industrial tomatoes, because of their perishable nature and a relatively short harvesting period, producers have to sell to factories immediately, as alternative markets are quickly saturated.

The traditional marketing framework for cereals in Senegal is quite different. The informal market plays a dominant role, with the result that there are significant price fluctuations. The low prices at the beginning of the harvest period force producers to sell off their crops to cover their urgent needs. Generally, prices are higher at the end of the harvest season, and this is beneficial for producers who are able to speculate on their surplus stock. Tripartite agreements involving buyers, banks, and producer organizations have been tried out to organize marketing and stabilize prices. They have shown the fragility of pre-season agreements with the majority of sales occurring in the informal market.

In this context of a dominant informal market, cereal value chains appeared less competitive and difficult to consider as a reliable supplier for industrial processors and urban markets in Senegal.

Exchange Rate : Financial data originally presented in this note has been converted at the standard project exchange rate of US\$ 1.00 = 500 FCFA.

PHOTO. PAGE 1

A win-win partnership: Seynabou Fall, President of the Wack Ngouna millet producers Economic Interest Group (GIE) and Pierre Ndiaye, Manager of the agro-industrial company Mamelles Jaboot. Today their annual contract level has reached 1,000 tons.

PHOTO. PAGE 2

Delivery of millet by the Mabo Economic Interest Group (GIE) to an industrial producer. The capacity of a group to ensure the consolidation of a quality product is the key to success.

TECHNOLOGY DESCRIPTION

The contractual framework promoted by Feed the Future aims to ensure that producer organizations become active players in the value chain. They must self-organize, define for themselves the rules of the game, and ensure that their members follow these rules. This approach is based on guiding principles that govern capacity building activities and guide stakeholders towards the joint creation of resilient contractual structures.

Producer Group Self-Organization

Producer networks need to be able to plan, monitor, and evaluate their production programs in order to interact professionally with input suppliers, banks, mechanized services providers, and ultimately their customers, the industrial mills. Mastery of computer tools thus becomes a strategic skill for the producer networks.

Split Contracting of Production

It is necessary to recognize a smallholder producer's need to feed her/his family and the convenience of a local market close by when defining contractual commitments. At the beginning of the season, the principle of a minimal commitment limited to reimbursement of credit for inputs is preferable to drawing up a contract for all surpluses.

Formulas for Establishing Selling Prices

Formulas for setting selling prices must be flexible, reflect market conditions at harvest time, and be based on production costs, calculated on precise yields and all costs incurred by producers. The initial price is often limited to the sales intended to reimburse bank loans. Beyond this threshold, the market for cereal surpluses must be open to competition from industrial processors, village traders, and regional wholesalers.

Autonomous Management of Seasonal Credit and Risk Coverage

Producer networks must be able to enter into contracts directly with banks based on reliable data, and without the requirement of a counter signature with a leading company. They must manage the reimbursement process efficiently. They must also be able to insure their credit against risks beyond their control.

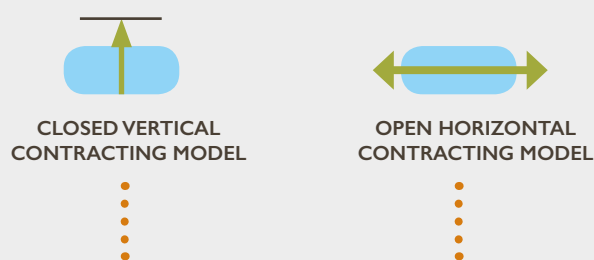
Quality Standards Defined by Agreement between the Parties

Value chain stakeholders must define a normative framework that defines quality control criteria and appropriate measurement methods. These standards must be adopted by producer network members and incorporated into contractual agreements with banks (inventory financing) and buyers.

Contracting the Provision of Services

Producer networks optimize their competitiveness and resilience through their ability to contract bulk purchases of inputs, mechanized land preparation and harvesting services, access to financial services, etc., within a diverse ecosystem of private providers. Producer networks benefit indirectly from activities facilitating the emergence of an open market for inputs and the provision of financial and post-harvest services.

CLOSED VERTICAL CONTRACTING VS OPEN HORIZONTAL CONTRACTING



BUYER	
A single buyer (often a governmental entity)	Several buyers of the production
REPAYMENT METHODS FOR ADVANCES OR LOANS	
Largely In-kind Reimbursement	Several buyers of the production In-kind and Cash Reimbursement
TYPE OF SALE	
Total sale to single buyer	Split sale
DATE OF CONTRACT	
Pre-season contract	“Open” price, pre-season contract with the Bank Closed price contract at harvest time with the buyer
QUALITY ASSURANCE	
Quality controlled by the buyer at delivery	Verification controls by the producer networks, banks, and buyers at different stages
PRICE SETTING PROCESS	
Meeting and advocacy with a single buyer	Negotiation based on costs and the market Competition among multiple buyers of the product

Source : USAID, LEO 2016

RESULTING CHANGES

The capacity building and facilitation actions of Feed the Future's programs in Senegal have led to the emergence, stabilization, and scaling-up of new contracting models in the rice, maize, and millet value chains.



IN THE MILLET VALUE CHAIN,

a transfer of skills and responsibilities to producers has strengthened the productive, organizational, and managerial capacity of producer networks. They manage a variety of financing arrangements ranging from group savings to pre-season advances, bank loans, and microfinance. A considerable number of producers have adopted index-based agricultural insurance. However, given the narrowness of the market, currently focused on Thiakry (a millet/yogurt snack) brands and processed cereals, these organizations have chosen to establish stable commercial links with specific industrial scale buyers. Producer networks obtain a price level that values the quality of the product and they are involved in the logistics of batch consolidation on behalf of the buyers.



IN THE MAIZE VALUE CHAIN,

producer networks such as the Federation of Saloum Maize Producers (FEPROMAS) negotiate their own fertilizer supply with suppliers and are self-sufficient in certified seeds. The producer networks manage annual bank loans worth US\$ 1 million (FCFA 500 million) with the banks and microfinance institutions (MFIs) active in their areas. They negotiate insurance policy distribution agreements with the Senegal National Agricultural Insurance Company (CNAAS). Due to the low price of imported maize, accessible to manufacturers in Dakar, maize producer networks are turning to the local market outside of Dakar, where prices are more attractive. They regularly negotiate lines of marketing credit with their banks to buy members' production, repay their loans, and market products on the wholesale market.



IN THE IRRIGATED RICE VALUE CHAIN,

the contracting system has made it possible to structure the raw material supply from producer networks in the Senegal River Valley and from Anambé. This has resulted in an open market, linking producer networks comprised of more than 20,000 producers with more than 60 industrial milling units, 14 of which have access to major marketing credit lines. This system, in which competition among buyers benefits producer organizations by stabilizing prices at harvest, now facilitates annual contracts of more than 150,000 tons of paddy rice valued at close to US\$ 37.4 million (FCFA 18.7 billion) at the level of producers' warehouses. White rice marketed by manufacturers has become competitive because of quality control, which is a standard requirement of contracts.

A STRUCTURAL TRANSFORMATION BENEFITING ALL STAKEHOLDERS IN CEREAL VALUE CHAINS

Stabilization in Producer Prices and Co-existence of Industrial Buyers with the Informal system

Contracting only a portion of the production at harvest time, for example, for the repayment of an input loan in a multi-buyer framework has had the effect of stabilizing prices for producers and helped eliminate price drops at the start of the season.

Improved Competitiveness for Industrial Buyers

Empowered producers who effectively manage grain quality and arrange the logistics associated with preliminary crop aggregation, also facilitate the job of industrial millers. When producers are engaged in this process, fewer crop collection teams are needed, raw material transport capacity is maximized, and yields of the finished factory product and commercial quality of the product are higher.

Service Delivery Development

Empowered producer networks are better able to enter into a

contract for external services, thereby creating sound markets for input suppliers and mechanized service providers.

The Role of Banks in Guaranteeing Sound Contracts

The open system places banks in the strategic position as intermediary between producer networks and millers, as well as service providers. By setting up appropriate credit lines, banks guarantee producers the payment of the stocks they deliver to factories.

Strong Producer Networks

The development of producer networks with negotiating autonomy based on increased professionalism makes them strong interlocutors at the level of civil society, and local and national governing bodies.

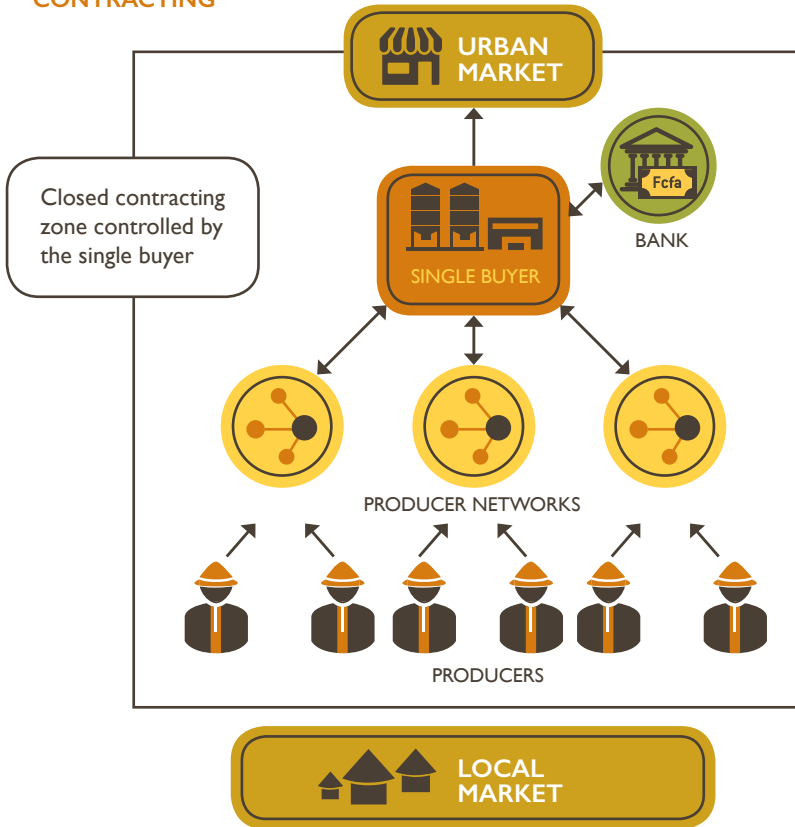
Buyer Networks Add Value for Producer Groups

The competition created by the open system encourages industrial millers to improve their relationship with the most efficient producer groups through technical support services or co-investments in infrastructure and equipment. Producer networks can choose to accept or not accept such arrangements.

1. See the capitalization note on "Integrated Financing"

**FROM A CLOSED VERTICAL MODEL TO AN OPEN HORIZONTAL MODEL:
MORE AUTONOMY AND RESPONSIBILITIES FOR PRODUCERS**

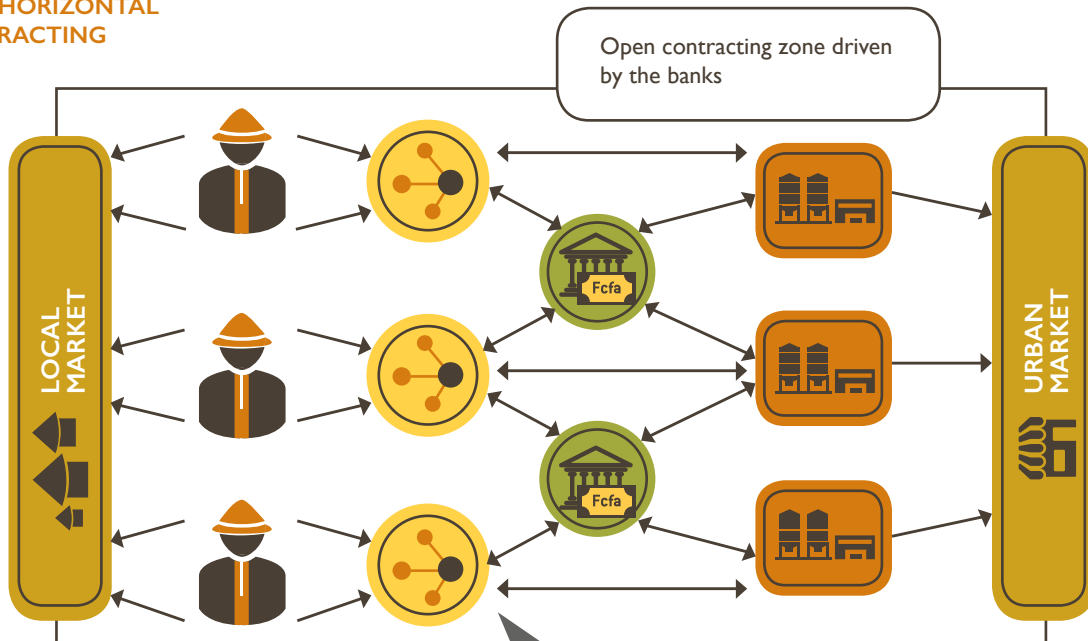
CLOSED VERTICAL CONTRACTING



FRAGILITY: Prospect of a more lucrative local market but no transfer of skills to producers and less autonomy and responsibilities for producers.

Excessive concentration of functions on a single buyer destabilizes the system but the resulting crisis creates the opportunity for the emergence of an open framework.

OPEN HORIZONTAL CONTRACTING



IMPROVEMENT: Bottom-up, participatory approach with the transfer of skills, responsibilities, and autonomy to producer organizations.

FACILITATION APPROACH

SYSTEMIC, INCLUSIVE APPROACH FOCUSED ON COMPETITIVENESS

Throughout the USAID/Economic Growth Project (PCE) and Naatal Mbay projects, Feed the Future's approach to developing contracting models went beyond establishing linkages and brokering commercial transactions. The development of a sustainable contracting model incorporated capacity building activities at all levels. After initial awareness-raising efforts around the concept of win-win agreements that brought together the first group of players, activities were quickly refocused on strengthening technical and managerial skills, particularly those of producers and their organizations.

Producer Technical Training

To ensure an increase in marketable surplus grain, the training programs implemented by Feed the Future (more than 150,000 trained producers) focused on essential skills to achieve high productivity gains, that cover household food needs while generating trade surpluses in line with buyers' specifications. Given the importance of ensuring continued access to certified seeds by producers to improve the productivity and quality of cereals, initiatives also targeted producers involved in seed multiplication and seed certification schemes.

Managerial Reinforcement of Producer Networks

The sustainable adoption of production technologies has been consolidated by strengthening the capacity of producer networks to independently provide agricultural advice to members and to plan and monitor the crop year. To do this, Feed the Future supported more than 120 producer networks through performance contracts, in conducting annual extension programs, complemented by organizational reinforcement activities. Key skills acquired by these producer networks included input supply and distribution management for members, relations with financial services (banks and MFIs), technical monitoring of producers, forecasts and harvest management, and coordination of marketing initiatives.

Shared Quality Control Systems

The conformity of products to specifications is the foundation upon which all value chains are built. It is essential that all stakeholders have a good command of the quality specifications and can carry out independent checks to verify quality. To ensure this principle of redundancy of controls, Feed the Future took a consultative approach to defining specifications and to trained all stakeholders (producers, millers, and banks) as a central program activity.

Modified Credit Systems

The value of a contract depends on the solvency of the parties. Banks play a central role in facilitating the financing and payment of transactions between value chain stakeholders. The Feed the Future program therefore worked with banks to develop and oversee the emergence of structured, integrated credit systems to facilitate monetization of inventories and transactions between value chain stakeholders.

Financial Risk Reduction Tools

To ensure that the system is built on a solid foundation, Feed the Future activities were launched without credit-risk hedging mechanisms other than those already available at bank level. Subsequently, however, the program strongly supported the development of financial risk mitigating services such as agricultural insurance or documented cereal stock monitoring systems in order to secure credit.

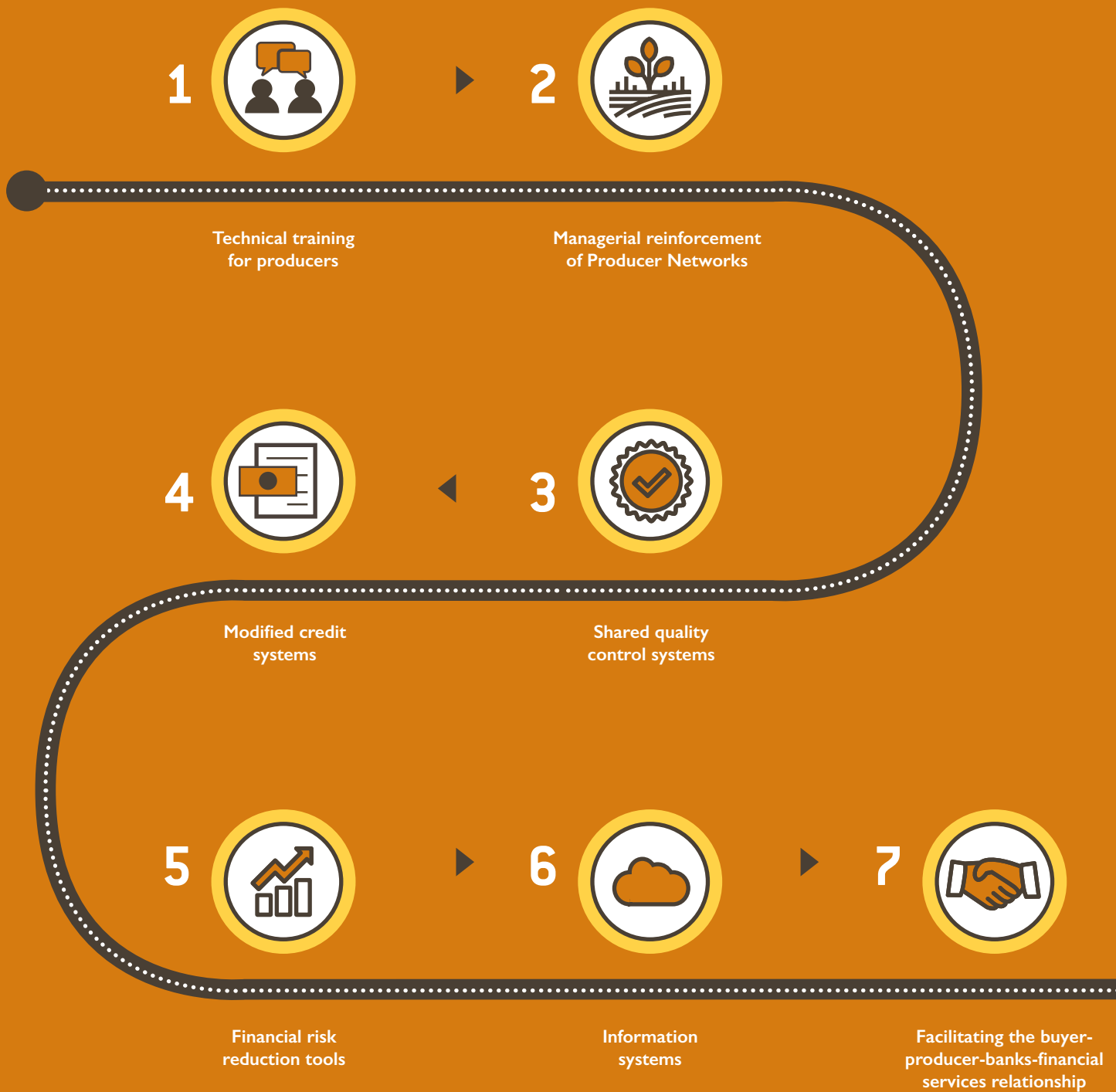
Information Systems

Contracting is based on transparency, precision, and the timely communication of information, qualities that are often missing among value chain stakeholders, particularly producer networks and small-medium-sized manufacturing concerns. Feed the Future therefore strongly supported the adoption of information technologies via network managed databases and the development of cloud-based platforms for production activity monitoring and stock management.

Facilitating the Buyer-Producer-Bank-Financial Services Relationship

Inclusive solutions were facilitated through stakeholder participation during periodic meetings for training and validation of financing, insurance, and pre-harvest pricing models. Adding to this, procurement workshops and business meetings were organized, aimed at making stakeholders aware of the risks and obligations linked to contracting. Little by little, the stakeholders have assumed leadership of these meetings and the project's involvement was gradually reduced to a technical advisory role.

A SYSTEMIC APPROACH FOR IMPLEMENTING ELEMENTS THAT ARE INDISPENSABLE FOR CHANGE



PARTNERSHIPS AND SYNERGIES

For Feed the Future, the development of contractual frameworks adapted to cereal value chains was a process that, above all, must be driven by the stakeholders directly concerned. Consequently, close collaboration with leading private organizations for the design and piloting of innovative approaches is a basic requirement.

Producer networks such as the Federation of Saloum Maize Producers Cooperative (FEPROMAS) in the maize sector, the millet groups of Wack Ngouna, Mabo, and Thiare, the Kissal Patim GIE in the rainfed rice sector, and the Federation of Producers from the Anambé Basin (FEPROBA), as well as the Federation of Self-managed Rice Perimeters (FPA) of the Senegal River Valley in the irrigated rice sector have led to the development of management and contracting tools adapted to the farmer context.

In addition, leading companies such as Mamelles Jaboot for millet, Vital Agro-Industries for irrigated rice and SEDAB, the Sahel agrobusiness distribution company, in the fertilizer and seed

sector have conducted pilot contractual operations that were then adopted within their respective sectors of activity.

In the financial sector, the Senegal National Agricultural Credit Bank (CNCAS) took the lead and provided leadership in the development of innovative integrated credit schemes that supported the growth of the cereals sector. Simultaneously, the Senegal National Agricultural Insurance Company (CNAAS) was able to adapt its products to meet the needs of producers and banks in securing credit.

Finally the emergence of a new category of players, mechanized service providers, supported by LOCAFRIQUE to access heavy equipment, facilitated technological modernization in the cereals sector, and more specifically, irrigated rice production.



FOR SMALLHOLDER PRODUCERS, RAPID CONSOLIDATION AND STORAGE ARE KEY IN ACHIEVING DOUBLE CROPPING

The Coumba Nor Thiam company works with more than 5,000 small holder producers under contract, consolidating their production. In 2018, this Senegalese company signed a direct partnership, Global Development Alliance (GDA), with USAID to expand its capacity to provide logistics and storage services in order to accelerate the consolidation of production by smallholder farmers so they can farm during both the dry and rain season cycles.

ACHIEVEMENTS

The promotion of contracting by Feed the Future has already generated significant gains for the continued development of cereal value chains and the integration of smallholder producers into grain markets.

Reduction in Seasonal Price Fluctuations for the Producer

The first impact of contracting, that is often forgotten, is the significant reduction in seasonal price fluctuations for the production. Typically, prices were quite low at the start of the season. Today, even if the contracts only cover a fraction of grain marketing, they have influenced local market prices and limited speculative practices that are disadvantageous for producers.

Emergence of Contracting Models Driven Independently by the Key Players

The contracting support program has facilitated the emergence of competitive and now profitable contracting models driven independently by the key players (producers, manufacturers, banks). The sustainability of these models no longer depends on a project. Competent producer networks are now capable of managing input supply, credit, insurance, training and monitoring, and marketing programs for more than 1,000 members.

Leadership of Banks and Financial Institutions

The leadership of banks and financial institutions, that are involved in financial and commercial facilitation between the contracting parties, is also a major transformation. Similarly, group empowerment and bank intermediation for monetization of in-kind payments have organized a contractual and solvent market for tractor and harvester service providers. Already put to the test by climate shocks and variations in international prices, the system will nevertheless have to strengthen its resilience over the coming years.



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TESTIMONY

SEYNABOU FALL,
President
& MADOU BÈYE,
Database Manager
of the Wack Ngouna Producers
Economic Interest Group (GIE)

Thanks to the collaboration with Naatal Mbay, Wack Ngouna's network has managed to win the trust of Mamelles Jaboot, a processing industry, with which it enters into contracts and sells pre-production. This contracting arrangement has facilitated the increase in hectareage, the number of producers concerned, and production from 2015 to 2018. The following have also been noted: a reduction in the difficulties associated with marketing, the setting up of a team of trainers, the extension of agricultural insurance, access to climate information with new technologies, linkage with banking institutions, and the availability of an insurance, credit, and marketing advisor.

PHOTO :

Mechanized harvesting and shelling of millet. The purchase agreements allow producer networks to enter into contracts for mechanized harvesting services with local providers who are encouraged to invest to acquire equipment and to maintain their equipment in good working condition.

CHALLENGES

Grain markets remain highly competitive

Agrifood marketplaces into which cereal value chains must insert themselves remain highly competitive. Growth and even just maintaining gains will depend on productivity, overall business governance, and management of agroclimate risks.

Targeted Improvements and Innovations

Maintaining small scale holdings in the marketplace alongside the large scale agro-industry requires the continued pursuit of targeted efforts at improvement and innovation in terms of productivity, quality, hygiene, and logistics. The shift to logistics (silos, bulk transport, etc.) and trading systems adapted to bulk grain sales rather than to the bag system will require new credit, trading, and pricing formulas. These changes will also require computerized solutions adapted to the growing volume of trade and the multiplication of transactions.

Storage Capacities

Improvements in storage capacities, to meet the standards in the various cereal value chains and guarantee product quality, must be viewed as a fundamental element of contracting. Financing terms for grain warehouses are a major challenge, as these installations represent substantial up-front investments for producers.

Adoption Beyond the Senegal River Valley

Despite contracting progress in areas with a strong commercial orientation such as the Senegal River Valley, for irrigated rice, people have been reticent to adopt contracting in other areas and cereal value chains. The maize and rainfed rice areas continue to face marketing problems due to non-compliance with contractual commitments. Heavy price fluctuations and the resulting speculation, as well as poor quality, are other factors favoring sales without a contract.



CONTRACTING: A NEW FRONTIER FOR RICE PRODUCERS IN THE SOUTH

Traditional women rice growers had to spend hours threshing their meager harvest which scarcely covered a few months of their household needs. Now empowered and with a surplus at their disposal, they are ready to sign contracts with the husking mills that are appearing in Casamance, either to sell their paddy rice or to husk it for their own benefit.

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OUTLOOK

Spread of Contracting

Expansion in contracting is dependent on autonomous producer networks. It will require a change in the capacity building practices of producer networks and will stress the provision of competent services to members, and thus minimize their reliance on external frameworks. Without these capacities, producers will remain locked into limited market opportunities and will not fully benefit from the growth in urban demand.

Digitalization of Agriculture

The management of various physical, financial and information flows requires the gradual digitization of contracts, and physical and financial operations associated with them. This will facilitate the monitoring of physical transactions (inventory movements) and financial transactions (credits and payments) by stakeholders (producers, manufacturers, banks, and government). Once costs have been covered for the development of applications and stakeholder training, productivity and efficiency gains from this digitization should make it possible to cover recurrent costs.

Links between Infrastructure, Mechanization, and Contracting

The growth initiated by contracting must be accompanied by the simultaneous development of infrastructure (warehouses, roads) and private investments in equipment (soil preparation, harvesting, logistics, and processing). If the contracting mechanism is based solely on short-term credit, there is a risk that this will rapidly cap growth and generate adverse effects when transactions exceed existing operational capacity. It is therefore important to plan for investment programs and responsive financing tools that can support the resulting growth dynamics.



KAROLINA IS COUNTING ON ABSA BA NIANG TO SECURE ITS SUPPLY

After completing her Masters in value chain development, awarded by the National College of Agronomy (ENSA), with the support of Feed the Future, Absa was hired by CMG Agroindustries (Karolina brand of the CCSN group) to build and manage its supply network for smallholder producers and to ensure quality control. For Mafal Fall (on the left in the photo), the Manager of CMG, and the other industry leaders in the Valley, building a loyal and reliable producer network constitutes a strategic challenge for ensuring their growth. Young specialized technicians like Absa are also key to their success.



TO LEARN MORE

- Recensement du matériel agricole de travail du sol et de récolte-battage dans la Vallée du Fleuve Sénégal, Rapport final, CGERV, 2017
- Feed the Future Senegal Naatal Mbay Baseline Final Report, IPAR, 2015.
- Feed the Future Senegal Economic Growth Project (PCE) Final Report, 2009-2015. USAID, 2015.
- Profilage, cartographie et évaluation des capacités des petites unités de transformations de paddy de la VFS, CGERV, 2015
- Contract farming for cereal values chain: smallholder market integration through contract sales agreements, USAID and IRG, 2015
- Case studies on facilitating systemic change: a synthesis of cases from Ghana, Senegal, Zambia, and Rwanda, LEO Report n°49, USAID, LEO, and ACIDI/VOCA, 2016

This capitalization note and the publications mentioned are available at the following addresses :

www.usaid.gov/senegal

www.ipar.sn/chaines-de-valeur-agricoles-au-senegal

PHOTO

Consolidation in the cereal trade often begins with horse-drawn delivery coordinated by the producer networks.



The Naatal Mbay project (Flourishing agriculture in Wolof), spanning four years (2015-2019), invested nearly US\$ 24 million (12 billion CFA francs) to support the rice, maize, and millet cereal value chains. It has created business opportunities for inclusive growth and development of the agricultural sector in the Delta and the Senegal River Valley, in the southern portion of the central peanut basin, and in the southern regions of Ziguinchor, Sédhiou, and Kolda. Naatal Mbay was implemented in the context of Feed the Future, an initiative launched by the Government of the United States of America in 2011 to combat hunger and food insecurity in the world.

For more information :
www.feedthefuture.gov

USAID is the United States Agency for International Development, one of the most active agencies in the world in the field of agricultural development. In Senegal, USAID is working in close collaboration with the Government of Senegal in the fields of health, economic growth, agriculture, education, and good governance.

For more information :
www.usaid.gov/senegal

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