

Innovations in the marketing of agricultural produce: the case of the FASO JIGI cooperative in Mali

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Abstract: Substantial numbers of smallholder co-operatives in Africa fail each year due to their inability to be self-sustaining. Liberalization of Mali's cereal sector in the 1990s resulted in transition from a cereal deficit to self-sufficiency. However, problems like credit, poor marketing and low prices hindered real development of the sub-sector. In 1997, the FASO JIGI Cooperative marketing project, a union of cooperatives with regional coverage was set up, focusing on the collective management of cereal marketing, allowing producers a more active role, resulting in better product prices and income stabilisation. Key issues this paper addresses include members' attributes and what they derive and contribute to its sustainability. The study involved 250 members and 27 extension officers randomly sampled and data analysed using simple cost calculations, frequencies and percentages. Members' active involvement, good social climate, conformity and control, communication patterns, monitoring, indigenous management systems, funds generation, training and regional government support were key sustainability factors.

Keywords: cereal, credit, cooperative, farm, financing, marketing

Introduction

Grain marketing innovations in West Africa

An important constraining factor to increased agricultural productivity in Africa is "poor market access". Many small-scale farmers who rely on agriculture for their livelihoods sell most of their farm produce to traders soon after harvest to either meet immediate cash needs or avoid high grain storage costs (Berg and Kent 1991). At this time, prices are at their lowest and the income received is barely adequate to meet the myriad needs of the households. Consequently, little or no cash is reserved for the purchase of farm inputs the next season. During the lean season when all crops have been planted and new ones are yet to be harvested, grain prices are highest and invariably rural farm households run out of grain stocks and are compelled to purchase from market traders. All the storage and financing costs absorbed by the traders are passed onto the consumers (including the farmers who are now consumers). This system compromised farmers' livelihoods, resulting in shrinking farm sizes, diminished demand for inputs such as seed and fertilizer and thereby decreasing agricultural productivity (Coulter 2005).

Access to reliable markets, therefore, is a prerequisite for increased input demand, growth in the agricultural sector and subsequently improved rural livelihoods. The problem is how might farmers be brought closer to better markets? In most parts of Africa, market infrastructures are poorly developed. Governments lack the capital and motivation to improve road networks, warehousing, stores, grading and standards in the rural communities. This suggests that for farm households to improve their livelihoods there is the need for alternative interventions.

Market-oriented initiatives

Francophone experience: Francophone Africa has seen some of the most notable achievements with collective marketing. Starting in Mali in 1974, 'Associations Villageoises' (AVs) and similar producer organizations (POs) became a major component of contract-farming systems in the burgeoning parastatally-controlled cotton sectors of francophone countries. The parastatals were able to devolve much of the responsibility for input and equipment supplies and primary marketing of seed cotton down to these all-village institutions in a mutually beneficial manner. The AVs worked in a linkage dependent relationship with the parastatal cotton companies, which oversaw their operation and had a stake in their survival (Coulter and Tyler 1992; Bingen 1998).

Mali and other francophone countries have also witnessed large numbers of producer organizations (AVs and 'groupements') being organized in conjunction with irrigated rice schemes (DNA 2000). While often playing an important role in service provision, they have encountered many serious governance and management problems. In 2005, farmers were largely bypassing them in favour of other support mechanisms, including micro-finance institutions and moneylenders. One knowledgeable commentator (Kwadjo 2000) estimated that only 2 percent of all POs working in the zone were operating correctly; most of the others were highly indebted and technically bankrupt.

The cereal market in Mali was liberalized early in 1990. This reorganization resulted in the change from State monopoly to an active participation of the private and associative actors. The new situation led to an increase in production from most farms, thus changing the country from a cereal deficit nation to a self-sufficient nation, despite a population growth rate around 3% a year. However, despite the progress and the improved environment, several factors continued to hinder the development of the cereal sub sector (Coulter & Tyler 1992). They are mainly:

- price distortions on the market and high seasonal price variability (low price in the harvests period and high in shortage period),
- bad quality of marketed cereal,
- weak organization of actors namely producers for product marketing,
- individual cereal supply not allowing individual producers to obtain a higher price in the market,
- difficulty of access to credit by the producers.

Facing these development problems in the cereal sub sector, the Canadian cooperation and the "Programme de Restructuration du Marché Céréalière" (PRMC) initiated, in 1995, an 18 month pilot project to support the rural sector. This project focused on the collective management of cereal marketing (rice, millet and sorghum) and was known as the "Cereal Marketing Support Project in Mali" (PACCEM).

This pilot project was implemented in Segou region by a commission formed by the union of agricultural producers and international development (UPA DI) and "Développement International Desjardins" (DID). The project goal was to allow producers to play an active role in the cereal marketing sub sector, so that they could obtain better prices for their products and stabilize their income. The project purpose was to set up tools to establish a collective cereal marketing system supported by a simple and credible democratic structure able to represent member producers. The objectives of the project were to:

- Development a democratic organization of farmers, for better representation at the sub sector level.
- Train farmers as well as help them have easier access to credit and to make farmers responsible and autonomous.
- Work together with various stakeholders within the cereal marketing sub sector so as to meet the country's reliable demand.
- Empower farmers in the marketing of their product by creating awareness on various market signals like the price, volume and quality.

Establishment and development of FASO JIGI

The FASO JIGI project was launched in September 1995. The first activity of the project consisted of the selection of farmer organizations (GP) through whom producers would market collectively. The selection exercise was democratically done and the selected organization was representative of all the member organizations. Previously, an organization grouping together all the Farmers Organizations within a region did not exist. The project thus had to work, in association with the Regional Board of Agriculture (CRA) of Segou, on the implementation of the Transitory Committee of Farmer Organization (BPOP). During the pilot phase, besides the numerous sessions of sensitization/training/information implemented at the grass roots level, two general assemblies were held and it was during the third assembly held in November 1996 that the rules and regulations of the organization were adopted and the organization was legally recognized as FASO JIGI.

A financial viability survey, conducted in January 1997, (18 months after launching the pilot phase) gave the green light confirming the originality of the idea as well as the merits of the intervention and its sustainability. The viability implies, on one hand that the operation is financially profitable in the medium term, on the other hand, that the organized farmer organization is able to take care and to execute all the activities connected with the collective marketing system.

Following the results of this survey, the Canadian Cooperation for Development (ACDI) agreed to finance the project's first phase of five years from 1997 to 2003. This phase was essentially dedicated to the development of FASO JIGI in terms of membership, of the volume of the loans, the quantities of marketed cereal and also particularly in term of relations with partners.

In 2001, FASO JIGI was equipped with its first strategic plan, with its main objective as "autonomy in the organizational and financial management". To achieve this, the organization requested a second phase. Following the project and the farmer organization's positive results,

a second phase (2003-2009), implemented by UPA DI was granted to strengthen the achievements of FASO JIGI and, eventually, make the organization autonomous.

The second phase of the project, which was launched in 2003, considered the concerns of women shallots producers as well. During this phase, FASO JIGI had its own staff and the farmer organization worked in a well-structured frame with an annual work plan as well as running and marketing budgets. FASO JIGI was financially audited every year to ensure a complete transparency, its credibility with all the partners and the respect for democracy. PACCEM's role completely changed during the second phase. Instead of it being directly involved in the field, it acted as an adviser around five main axes:

- The consolidation of FASO JIGI achievements
- The integration of the women within FASO JIGI
- The strengthening of FASO JIGI organizational and financial level of autonomy
- The transfer of all the activities to FASO JIGI
- The achievement of a training, information and sensitization program conceived and adapted to FASO JIGI members' needs, from the grass root to the summit.

The project actions were focused on three main areas of intervention of the ACDI namely:

- *basic human needs*, through the implementation of activities favouring higher volume of cereal production and consequently, the achievement of food security,
- *private sector development*, through the implementation of farm produce marketing structures organized by Malian farmers of both genders,
- *women and the development*, through the support brought directly to OPs of Malian women farmers, such as adult education programmes, autonomy and self-management classes to improve their incomes.

FASO JIGI has been active for over ten years in Mali and it is the intention of this paper to investigate its activities as well as assess the acceptability and viability of its farm produce marketing structures. Specifically, the paper will investigate and discuss:

- membership and benefits to members
- factors in the sustainability of FASO JIGI
- constraints to its operations.

Literature review:

Cooperative, advantages and collective marketing:

A cooperative refers to an autonomous association of persons, including natural persons, who unite voluntarily to meet their common economic and social needs through a jointly owned and democratically controlled business in terms of the Cooperative Act (91/1981)(South Africa Coop Act, 1981). The establishment of cooperatives can result in various advantages for its members. Firstly, the cooperative can supply services to its members which other suppliers are unwilling to do. Secondly, cooperatives can increase the bargaining power of individuals enabling them to obtain services and products at more favourable prices. Von Ravensburg (1999) adds that the bargaining power obtained not only contributes to the goals of individuals, but that the forming of cooperatives can also contribute to the alleviation of poverty, especially amongst the less privileged communities. The cooperative is the ideal type of business to concentrate on and contributes to the socio economic needs of its members (Bhuyan & Olson 1997). In rural communities, the cooperative can play an important role as the economic engine for creating jobs and increasing rural income. People can participate in the cooperative sector to help building a community that benefits them, as well as their neighbouring communities (Hazen, 2000). Cooperatives should actually be in a better position to contribute towards poverty alleviation because their members manage them. Any surpluses generated by their activities are available to the individual members (Von Ravensburg 1999).

The importance of the cooperative

However, not only individuals benefit from forming cooperatives. The small business sector often faces the same problems and can also use this type of business form to promote themselves. Since they have limited bargaining power, small businesses often pay higher prices for products, are charged higher interest rates and get limited credit facilities (Moolman, 1998). Economies of scale enable large businesses to dominate many markets, which can lead to the demise of small businesses. If small businesses can combine their flexibility and market knowledge with economies of scale, they will be able to compete with large businesses and survive competition (Masurel & Janszen 1998; Ropke 1992). The government, donors and business community can be more inclined to use the cooperative as an instrument for

channelling aid to the small business sector. This will not only contribute to the survival of the small business sector, but can also position the small business sector in a way that it can contribute considerably to the economic development of a region or the country as a whole. The cooperative as a business form actually serves as an instrument of development in the hands of the small business sector and the establishment of cooperatives by small businesses has become a worldwide trend (Hazen, 2000). The small business sector is supposed to keep communities alive. These businesses, however, find it hard to survive due to competition. Participation in cooperatives will help them to build these communities (Hazen, 2000).

Initiatives concerned with markets, local food security and problems:

Collective marketing schemes (CMS) are the best known POs concerned with staple foods in Sahelian countries. Thousands were organized under the auspices of NGOs and development projects in the wake of famines in the 1970s and 1980s. The objectives were to prevent farmers from 'over-selling' at low prices and then buying back at high prices, to avoid exploitation by middlemen and help surplus producing farmers to find a better market for their grain. In the main part they have proved institutionally unsustainable, tending to progressively decapitalize and disappear once outside support was removed. Drawing upon a range of sources (Gergely et al. 1990; Berg and Kent 1991; Günther and Mück 1995; Reusse 2002), one can attribute the poor performance to difficulties in competing with private trade in 'spatial arbitrage' (trading between geographic locations), frequent losses from 'temporal arbitrage' (speculative storage), providing credits in the lean season to members who do not repay, management errors (due to a mixture of inexperience, slow collective decision-making, and social pressures) and corruption.

Collective marketing schemes were particularly vulnerable to these problems because of the heterogeneous nature of their membership, including surplus producing members, deficit producing members and non-producers, and having objectives that cover both business and social functions. As such, CMS membership tends to lack a single-minded focus for its activity. Part of the problem should also be attributed to the promoting entities' limited time horizon and charitable outlook. In this regard, Günther and Mück (1995) noted that the support these entities provided during a 20-year period never included an external audit. In addition, farmers at the village level often think that since it is the outsiders who identified the problem and instituted the CMS to solve it, they (outsiders) should make sure that the CMS works. Other weaknesses of CMS included (1) lack of financial prudence due to the absence of any institutional representation on the management board, and (2) no incorporation of tools for monitoring and evaluation in the set up.

According to Coulter and Schneider (2004), Tanzania's experience with market liberalization in the 80s and 90s provides further evidence of the relative unattractiveness of collective marketing with staple crops. Generally, private traders encroached on the cereals trade earlier than they did on the trade in cash crops such as cotton and coffee. Cooperative Unions remain significant players in the coffee sector to this day, whereas their exit from cereal markets started during the 1980s. At the time this was happening, donors were busily funding the construction of primary society stores under the 'Rural Structures Programme', with the understanding that primary societies would use these to hold surplus production. Around 1,000 stores of circa 300 tonnes capacity were eventually built, and until the early 90s, the Government of Tanzania was committed to providing such stores for the majority of villages in the country. In practice, however, farmers preferred to store their surplus grain at their homes rather than entrust it to their local primary societies, and the majority of these stores have remain unutilized to this day (Coulter and Tyler 1992).

Success Factors for Effective Cooperatives:

In order to have a vibrant cooperative sector, an environment conducive for cooperative development should be created and certain aspects should be addressed. The following factors play an important role in the effectiveness of cooperatives.

- Effective management- Cooperatives should be managed effectively. Conflict between members and management, including the board of directors, must be avoided (Von Ravensburg (1998). The advantages of cooperatives will only be realised if the cooperative continues to operate as a sustainable form of business.
- The initiative for the cooperative must come from its members: Those who will eventually enjoy the advantages of the cooperative must initiate the establishment of the business. Therefore, a bottom-up approach should be followed. (Bhuyan & Olson 1998).
- Member support and commitment: The cooperative will only succeed if continuous commitment and support by its members exist. (Randall 2001). Members must realise that the cooperative basically depends on them for its existence.

- Entrepreneurial mindset: A factor often ignored when addressing cooperative success is the entrepreneurial mindset of members (Röpke 1992). Environmental factors influencing the business sector also apply to cooperatives. In order to address the changing needs of members, all role players (including members, management and directors) must be creative and innovative.
- Cooperative education: The cooperative form of business must be completely understood and education should also deal with business, marketing and financial issues (Haskell 2003, Campbell 2003).
- Government support: Although a cooperative is member- driven, government support is indispensable. Government should provide the policy conducive to cooperative development (Von Ravensburg 1999).

Methodology:

This paper consists of secondary reports, interview schedules and questionnaires supported by qualitative interviews with 250 randomly selected members (100 members from cereal, 100 members from rice and 50 members from the shallot group) of the FASO JIGI cooperative groups. According to Duvel (1999), interviews and questionnaire methods of data collection are one of the few techniques available for the study of opinions, attitudes, importance, values, belief and motives.

Various reports were available at the secretariat of FASO JIGI in Segou (FASO JIGI Reports 2003-2008). These reports include activity reports, sales reports, financial reports and membership reports. The reports were all up to date at the time of data collection. Data collected from the activity reports included training reports, seminars and conferences organized and memorandum of understanding with other partners. Sales reports provided data on sales and revenues for over ten years while the financial reports gave information on loans and loan recovery rates. Membership reports gave the evolution of members in the scheme and their gender orientation.

The questionnaire developed for the study was divided into two parts namely: importance of FASO JIGI on members reasons for its success; and problems encountered as members of FASO JIGI. Data were analysed using simple frequencies, means, percentages and simple cost and loan repayment analysis.

Findings

Membership of FASO JIGI:

Considered as one of the strongest farmer organizations in Mali, FASO JIGI had 5 108 members grouped together in 134 cereal producing cooperatives (consisting of 71 rice cooperatives and 71 dry cereal groups), and has recently included in its membership 12 groups of women shallots producers. The initial groups that registered with the FASO JIGI scheme were the rice and dry cereal cooperative groups up till the year 2005 when the women shallot cooperative groups were absorbed because of the important quantity, quality and the demand for shallots.

Table 1. Members of FASO JIGI

Commodity	Cooperatives (#)	Members (#)
Rice	61	2 364
Dry cereal	61	1 173
Shallot (exclusively women)	12	571
TOTAL	134	5 104

Cooperative members interviewed as to the reasons for becoming members of FASO JIGI scheme claimed that:

1. It provides better marketing services for farmers and consumers at the village level and regional level (98%);
2. Reduced post-harvest losses (100%);
3. Strengthen village-level organizational capacity (92%);
4. Creates village-level emergency food stocks (100%);
5. Ensures efficient supply of production inputs at the right time (100%).

Apart from addressing both food security and market access, FASO JIGI also attempts to deal with the issue of market traders exploiting farmers and consumers in rural settings. In many cases, they also serve as social activities in bringing buyers and sellers within the community together.

Factors that enhanced the sustainability of FASO JIGI cooperatives:

Organization and management of FASO JIGI:

As presented in Table 3, good management and organisation contributed to the success of the cooperative. FASO JIGI is a union of cooperatives. It possesses its rules and regulations in agreement with the law and is structured to ensure the fair representation of the areas of intervention as well as the identified cereals for the collective marketing (rice, dry cereal and shallots). The regional coverage includes Bla and Segou districts as well as the Office of Niger and specifically Macina and Niono districts.

The Organization chart plays a very important and strategic role at the board of directors' level and the information flow from the bottom to the summit and vice versa. The general assembly consists of the supervision committee that ensures that all activities are duly implemented and reports to the board of directors. The board of directors are elected on a biannual basis from the three different professional cooperative group types namely: dry cereals groups, shallots groups and rice groups; and lastly the orientation committees from the three groups of cooperatives that help manage the business affairs of the various groups. This is in agreement with Röpke, (1992) who believed that for a cooperative to be successful, the management must have an entrepreneurial mind set. All of the members emanate from the various cooperatives registered in the FASO JIGI scheme. FASO JIGI has its own paid staff that consists of: an executive secretary, a marketing agent, an accountant, a jurist, and a store man. FASO JIGI works in a well-structured frame with an annual work plan as well as running and marketing budgets. Von Ravensburg (1998) agrees that a cooperative should be managed effectively to succeed. FASO JIGI is financially audited every year to ensure a complete transparency, its credibility with all the partners and the respect for democracy. Its annual turnover is 1.2 billion CFA francs, and its functioning is self-financed up to 65 % due to contributions from members.

Activities organised for its members

Credits to members: FASO JIGI's collective system of marketing includes a financing program specific to the organization and is supported by a multidisciplinary team of 25 persons from the PACCEM. The financial system is based on the principles of prepayments. These prepayments include advances of income granted to producers before production and marketing of their cereals. All the members fill the inquiry form specifying their production projections and volume that they will market within their union and all members provide correct information which to a large extent shows their commitment; which is an important factor in the success of a cooperative according to Randall (2001). From these data, every member receives payments that are made in two instalments:

Table 2. Items in the sustainability of FASO JIGI by members (N= 250):

Items	Rice coop. Members(%)	Dry cereal coop. Members (%)	Shallot coop. Members (%)
Good Managerial & organisational capacity	89	92	81
Various activities organised for members (credit, marketing ,conflict resolution, purchase of farm inputs etc	96	98	87
Monitoring of farming activities (quantity and quality) and cereal marketing for members	88	77	90
Self financing programme	100	100	91
Regional government support	100	100	100
Commitment and support of all members and partners	93	97	87
Training for its members	90	93	67
Good environment for production and marketing	86	84	72
Participation and involvement of members	100	100	100
Social climate	78	68	82
Social conformity and control	71	88	64

Source: Data collected in 2009 survey.

- *The first pre-payment:* represents 60% of the cereal transfer price (fixed by the Board of Directors) and is granted to producers during the first week of June of the current campaign. It is financed by the foreign partners and acquired on the 31st of December

through a credit line granted to FASO JIGI by the National Bank for Agricultural Development (BNDA). This system insures a 100% repayment with the foreign partners which assume no risk; and the entire inquiry and recovery work is done by the organization.

- *The second pre-payment:* this represents 40% of the transfer price and is granted to producers after the delivery of the projected quantities (December to February). It is paid through the same credit line granted by the BNDA. The producer at this stage has paid off in kind his credit and this is before the beginning of the new campaign.

This pre-payments system established with the support of the PACCEM since the first year of the project made it possible to grant in ten years more than 4 400 000 000 CFA francs (~9.5 million USD) to producers.

The outstanding payments of producers are internal debts, which FASO JIGI recovers with its faulty members. All the loans with the obtained are entirely paid off since 1996. This situation has made it that FASO JIGI is a financially credible and stable structure. Lawyers engaged by FASO JIGI since July 2005 makes the follow-up of the repayments of outstanding payments. He follows individually owing members in agreement with concerned villages technical committees and the board members.

Table 3. Loans and repayment situation from 1996 to 2008

Campaign	Total Loans Granted (CFA fr.)	Repayments	Unpaid	Repayment Rate
1996 - 1997	71 234 382	71 234 382	0	100.0%
1997 - 1998	112 644 000	112 549 430	94 570	99.9%
1998 - 1999	150 589 800	150 585 055	204 745	99.9%
1999 - 2000	299 135 150	296 987 354	2 147 796	99.3%
2000 - 2001	546 065 500	540 371 698	5 693 802	99.0%
2001 - 2002	561 484 500	551 972 776	9 511 724	98.3%
2002 - 2003	680 630 000	669 581 715	11 048 285	98.4%
2003 - 2004	977 863 160	929 782 528	48 080 632	95.1%
2004 - 2005	1 056 612 211	1 001 358 649	55 253 562	94.8%
2005 - 2006	1 400 000 000	1 378 200 000	21 800 000	98.44%
2006 - 2007	1 721 000 000	1 711 000 000	10 000 000	99.41%
2007 - 2008	1 950 000 000	1 900 000 000	50 000 000	97.43%

Source: Data collected by FASO JIGI Cooperatives, 2008

Group purchase of inputs: This concerns mainly fertilizers needed by producers for their crops. Having the cash, producers organize group purchases of fertilizer every planting period to obtain moderate prices and good quality products on time. FASO JIGI, during the 2007-2008 campaign, made purchased 2 900 tons of fertilizer for its members. The professionalism of the organization in negotiations has made it possible to obtain a price reduction up to 32 % in the "Office du Niger", thus creating precedence in the country and this is quoted as an example by the Malian government.

Collective marketing of cereal: Producers' projected quantities of cereal are collected first in all the villages after which they are gathered in the central stores at urban and semi-urban areas: Segou and Bla. The gathering allows the organization to negotiate better sales and not scatter its efforts. Central stores, belonging to the private people are usually rented for this purpose. Cereal marketing is done with mainly wholesalers from March to September and the wholesalers have to pay cash before any cereal removal. The results, in terms of volume and cash, for the last ten years of marketing are presented in Table 4.

Table 4. Quantities of marketed cereal and respective turnover from 1996 to 2005

Campaign	Cooperatives (#)	Marketed Quantities (t)	Turnover (CFA fr.)
1996 - 1997	18	511	74 134 938
1997 - 1998	31	769	139 419 050
1998 - 1999	37	968	197 118 500
1999 - 2000	50	1 808	352 317 300
2000 - 2001	61	3 225	700 764 350
2001 - 2002	58	3 011	678 081 065
2002 - 2003	64	3 896	849 991 000
2003 - 2004	90	5 518	1 146 018 350
2004 - 2005	109	5 754	1 280 430 500
2005 - 2006	122	8 119	1 800 000 000
2006- 2007	129	9 120	2 450 000 000
2007- 2008	134	9 896	2 745 000 000

Source: Data collected by FASO JIGI Cooperatives, 2008.

FASO JIGI's self-financing programme:

The financial autonomy of FASO JIGI is projected from dues collected and sold volumes. The constant growth of the collected tonnages is in direct link with their strategic development plan. To assure its functioning and protect itself with its financial partners, FASO JIGI established and operates several funds.

The functioning fund: made up of deductions from FASO JIGI marketed bags at the rate of 7 CFA/kg for the rice, 3.5 CFA/kg for dry cereal and 4 CFA/kg for shallots; and members annual contributions which are 5000 CFA by member cooperatives. It ensures more than 65% of the functioning of FASO JIGI.

The security fund: represents a 3% deduction of FASO JIGI's turnover and serves to absorb producers' outstanding payments with financial structures during the repayment of the organization credits. This system of security fund allows FASO JIGI to have no financial debt with any financial structure as at today. The organization itself gets back outstanding payments from its faulty members.

The marketing fund: about 0.2 % of the turnover; it helps to finance the activities connected with the achievement of good marketing of cereals such as advertisements, participation in fairs or in agricultural stock exchanges organized in Mali and in the sub region.

FASO JIGI training:

The PACCEM project had organized training programmes for FASO JIGI members over 10 years on varied subjects such as the roles and responsibilities of elected members, collective marketing system, store management, and democracy and transparency within groups. A functional Alphabetization and management program was launched in 2005 for 330 persons. All the women groups are registered for this programme. Haskell and Campbell (2003) were of the view that members of the cooperative members should be given necessary and adequate training.

Constraints

The major constraints identified with the FASO JIGI scheme by the three groups of cooperative members include:

1. riskiness of grain speculation (97%, 89%, 92%),
2. providing credits on speculation, which at times results in defaults (86%, 67%,72%),
3. theft of grains from warehouses(64%, 45%, 56%)
4. natural disaster such as drought(58%, 59%, 67%)
5. poor value addition (69%, 77%, 80%)
6. social pressures on management leading to poor decisions at times concerning the timing and pricing of purchases and sales (44%, 41%, 48%)
7. non adhesion of cooperative members from other grain crops(51%, 57%, 61%)

Conclusion and recommendations:

Although the idea of the formation of FASO JIGI smallholder cooperative came from outside the scheme, FASO JIGI happened to be compatible to the local situation and it is meeting the needs

of farmers in the region. Rules and regulations are formed locally and its management allowed for full participation of farmers with some evidence of social benefits proved by the general harmony amongst members.

However, more effort should be given to members on grain market speculations, and FASO JIGI should construct its own storage facilities to reduce costs as well as acquire grain processing technologies to add value to the grains and train members on the use of these technologies.

Lessons learnt

FASO JIGI is an example of successful smallholder cooperative society in Mali and its operation could be replicated in other regions of Mali. Cooperative members, if well managed and monitored, could obtain credit and pay back on time.

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