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**The Regulation and Organization of
Cereal Markets in Senegal: Report
on the Marketing Campaigns
of 1983/84 and 1984/85**

by

P. Alassane Sow and Mark D. Newman

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SPECIAL NOTE FOR ISRA-MSU REPRINTS

In 1982 the faculty and staff of the Department of Agricultural Economics at Michigan State University (MSU) began the first phase of a planned 10- to 15-year project to collaborate with the Senegal Agricultural Research Institute (ISRA, Institut Sénégalais de Recherches Agricoles) in the reorganization and reorientation of its research programs. The Senegal Agricultural Research and Planning Project (Contract No. 685-0223-C-00-1064-00), has been financed by the U.S. Agency for International Development, Dakar, Senegal.*

As part of this project MSU managed the Master's degree programs for 21 ISRA scientists at 10 U.S. universities in 10 different fields, including agricultural economics, agricultural engineering, soil science, animal science, rural sociology, biometrics and computer science. Ten MSU researchers, on long-term assignment with ISRA's Department of Production Systems Research (PSR, Département de Recherches sur les Systèmes de Production et le Transfert de Technologies en Milieu Rural) or with the Macro-Economic Analysis Bureau (BAME, Bureau d'Analyses Macro-Economiques) have undertaken research in collaboration with ISRA scientists on the distribution of agricultural inputs, cereals marketing, food security, and farm-level production strategies. MSU faculty have also advised junior ISRA scientists on research in the areas of animal traction, livestock systems and farmer groups.

Additional MSU faculty members from the Department of Agricultural Economics, Sociology, Animal Science and the College of Veterinary Medicine have served as short-term consultants and scientific advisors to several ISRA research programs.

The project has organized several short-term, in-country training programs in farming systems research, farm-level agronomic research, and field-level livestock research. Special training and assistance has also been provided to expand the use of micro-computers in agricultural

research, to improve English language skills, and to establish a documentation and publications program for PSR Department and BAME researchers.

Research conducted under this collaborative project was originally published only in French. Consequently, the distribution of results has been limited principally to West Africa.

In order to make relevant information available to a broader international audience, MSU and ISRA agreed in 1986 to publish selected reports as joint ISRA-MSU International Development Paper Reprints. These reports provide data and insights on critical issues in agricultural development which are common throughout Africa and the Third World. Most of the reprints in this series have been professionally edited for clarity; maps, figures and tables have been redrawn according to a standard format. All reprints are available in both French and English. A list of available reprints is provided at the end of this report. Readers interested in topics covered in the reports are encouraged to submit comments directly to the respective authors, or to Drs. R. James Bingen or Eric W. Crawford, Co-Directors, Senegal Agricultural Research II Project, Department of Agricultural Economics, Michigan State University, East Lansing, MI 48824-1039.

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*In December 1987 MSU, ISRA and USAID/Dakar negotiated a 2 1/2 year contract (Contract No. 685-0957-C-00-8004-00) to extend MSU's program of research support and training in the social sciences, agronomy, forestry and research planning.

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**THE REGULATION AND ORGANIZATION OF CEREAL MARKETS
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INTRODUCTION

Promoting the production and consumption of locally-grown cereals (millet/sorghum, corn) is an important objective of the New Agricultural Policy (MRD, 1984) defined by the Government. The NAP takes note of the fact that locally-grown cereals are by and large destined for on-farm consumption, thus remaining outside of the monetary circuit. Since farmers cannot market their surplus production, they generally limit themselves to producing that which is needed for subsistence (pp. 67, 68).

Figures show that the quantities marketed through public channels have always been low. From 1960/61 to 1984/85, state and parastatal marketing agencies were able to purchase, on average, only 2.08% of the national millet/sorghum production, with a maximum of 13.5% purchased in 1978/79. However, parallel to public marketing channels there also exists a private channel, where activities (from buying from producers to selling to consumers) are highly regulated (Sow, 1985, forthcoming). Yet the activities of this channel are not clearly defined. For example, in attempting to determine the portion of the local cereal production marketed through this channel, estimates have been made for only a limited number of geographic zones (Ndoye, 1984). It is believed, nonetheless, that the quantities of millet/sorghum bought and sold through this channel are very sizable, at least in comparison with the public channel. Within the framework of the ISRA/BAME surveys of cereal marketing in the Groundnut Production Basin, conducted during the 1984/85 season, the quantities of millet marketed by a sample of 63 wholesalers were estimated at more than 9,000 metric tons. During the same period, the public channel marketed only 1,752 metric tons nationwide.

The policy of promoting local cereals, as proposed in the NAP, focuses on: 1) making finished local production commercially available at prices sufficiently competitive when compared with imported products; 2) liberalizing the cereal markets with the simultaneous intervention of the Government and the private sector. According to the NAP, the free movement of cereals throughout the country and free competition among merchants can only have a positive effect on prices, greatly to the benefit of producers (p. 68).

Achieving these NAP objectives requires, among other things, regulations ensuring that the various participants in the cereal chain receive "equitable" remuneration. It also requires that the Government not be obliged to finance activities that are too expensive. Commercial regulations and the manner in which they are enforced will thus have a critical impact on the accomplishment of the NAP objectives. Accordingly, studying the commercial regulation of the cereal markets has been an important component of the cereal marketing study program of ISRA's Macro-Economic Analyses Bureau.

The purpose of this paper is to:

- a) Describe existing cereals marketing regulations;
- b) Analyze and discuss the effects of regulation on the market participants (producers, private merchants, consumers, state or parastatal agencies) and the contribution of such regulations to the achievement of the government objectives outlined in the NAP.
- c) Present alternatives in the area of regulation policy that are likely to facilitate the accomplishment of the NAP objectives.

CURRENT ORGANIZATION OF CEREAL MARKETING

The desire of the Senegalese government to control the marketing of agricultural products (cereals and groundnuts) dates back to the early years of national independence. Until recently, cereals marketing has been under state control.

The principles that determine the organization of the marketing campaigns for local cereals (millet/sorghum, corn, paddy rice) are established annually by executive order. These decrees designate the agents

and institutions authorized to participate in the marketing process and define the prerogatives or limits of their respective commercial activities. In this section, we will first present the principal agents and institutions involved in marketing cereals. We will then provide a description and analysis of the regulatory mechanisms which governed the marketing campaigns of 1983/84 and 1984/85.

Organizations and Agents Involved in Cereal Marketing

The marketing of the cereal products mentioned above is conducted by three distinct groups of participants: state and parastatal agencies, cooperatives, and private merchants.

State and Parastatal Agencies

State and parastatal agencies include the Price Equalization and Stabilization Fund ("Caisse de Péréquation et de Stabilisation des Prix" - CPSP) and the Food Security Commission ("Commissariat à la Sécurité Alimentaire" - CSA), as well as Regional Rural Development Companies ("Sociétés Régionales de Développement du monde Rural" - SRDRs) such as SODEVA, SAED, SOMIVAC, SODEFITEX and SODAGRI.

Price Equalization and Stabilization Fund (CPSP)

The role of the CPSP in cereal marketing is to supervise the distribution of rice, and sometimes imported sorghum, to consumers. The importation of rice, which accounts for more than 75% of total rice consumption in Senegal, is conducted or supervised by the CPSP. Local rice is collected from producers by the SRDRs, which dehusk the product before delivering it to the CPSP. Imported and local rice are thus centralized at the CPSP level. The CPSP is then responsible for distribution of the product within the country. For this purpose, the Fund relies on the assistance of a mixed enterprise, SONADIS, as well as private, so-called "quota agents" (see Quota Merchants).

In addition, the CPSP is also involved in the marketing of wheat, which is an imported product. The importation of wheat is handled by two private-capital millers, Dakar Mills (Grands Moulins de Dakar) and Sentenac Mills (Moulins Sentenac). But actual importation only occurs after discussions between the millers and the CPSP, at the conclusion of which import quotas are established for the millers. The millers themselves are responsible for distributing the wheat flour, at prices set by the government.

The SRDRs: SAED, SOMIVAC, SODAGRI, SODEFITEX, SODEVA

The shared role of the SRDRs is to provide extension services to small farmers (the introduction of improved cropping practices, the distribution of inputs on credit, etc.) in order to stimulate the production of certain agricultural products. At the same time, the SRDRs participate in the marketing of local rice and corn. One important reason for their involvement in the marketing of these products is to recover farmer debts. The quantities of cereals collected by the SRDRs are resold to the CPSP (in the case of rice) or to the CSA (in the case of corn). The SRDRs play no role in the marketing of millet/sorghum.

The activities of each SRDR are limited to a specific geographic area. SAED operates in the Saint-Louis region (irrigated rice), SODEVA in the Groundnut Basin (groundnuts, millet/sorghum, corn), SODEFITEX in the former region of Eastern Senegal (cotton, corn, rice), and SOMIVAC and SODAGRI in the former region of Casamance (rice, corn).

In the NAP, measures are delineated for the reorganization of the SRDRs. The NAP states that "the impact of SODEVA is scarcely evident. Its staff is far from introducing improvements and generally performs only routine tasks. The company is living on credits from the state budget which are increasingly smaller . . . The company's personnel will be reduced by 75%" (NAP, pp. 38-39). As for SOMIVAC and SODAGRI, the NAP anticipates that they will be fused into a single company with an overall staff reduction of 60%. The NAP emphasizes the need to: reduce government involvement in the agricultural sector, increase responsibility of farmers with respect to their own activities, and improve the performance of the SRDRs. In this regard, certain measures have been taken within the

framework of the Sixth Plan for Economic and Social Development. Contractual relations have been set up through program contracts to delineate the reciprocal obligations of the government and the SRDRs; these contracts would define the objectives and the programs of action, as well as the contributing human and financial resources. This measure represents an attractive alternative in that it makes the SRDRs more responsible for their activities.

Cooperative Organizations

The establishment of agricultural cooperatives in Senegal predates national independence. Until 1983, Senegalese cooperatives were the primary marketing agents for groundnuts; they also managed the credit for fertilizer and seed and distributed these inputs. The effectiveness of the cooperatives was lessened by poor management and limited participation of farmers in the decision-making process.

Following the dismantling of ONCAD (1980) and the Agricultural Program, a law was enacted in 1983 to restructure cooperatives. According to the NAP, the goal of the cooperative reform, as defined by the new law, is to progress from the stage of the former conventional cooperatives, where the involvement of state agencies was considerable, to a stage of so-called integrated cooperatives, where the government's role is limited to establishing a legal framework, monitoring, educating and training. Increased participation by the rural population in the activities of these cooperatives is considered to be a very important element.

In 1983, 337 new cooperatives and 4,403 village units ("Sections Villageoises" - SVs) assumed the place of the former cooperatives. Each cooperative covers one Rural Community and integrates the activities of all the village units within its territorial jurisdiction. In theory, the unit should take into account all the activities of its members and handle specific functions such as: the supply of inputs and consumer goods; the primary transport of what is produced; the provision of savings, credit and mutual insurance, and the design and implementation of small projects, education, training and management. The role of the cooperative is to plan, coordinate, monitor and evaluate the activities of its village units. With

respect to each unit, the cooperative should conduct operations for: identifying and distributing production inputs, collecting repayments on farmer debts, arranging the transportation of products to the urban centers, marketing all production, and identifying projects for the units (NAP, p. 33).

The variety of activities granted to the cooperatives and the SVs demonstrates that the government attaches great importance to the cooperatives. The NAP notes that the cooperatives are designed to be both the framework and the relay point for governmental action in the area of agricultural development.

However, the results attained by the cooperatives during preparations for the 1984 rainy season (the distribution of agricultural inputs) were very modest. The salient factor in that particular campaign was the late distribution of fertilizers (Crawford and Kelly, 1984). In addition, for 1984/85 the predictions for the purchase of millet/sorghum amounted to 16,000 metric tons. In reality, less than 8.5% of this tonnage was collected by the cooperatives and SVs.

Private Merchants

The role that private merchants play in the marketing of cereals is an important element in cereal transactions. The activities of the merchants may be either legal, which is to say in conformance with regulations, or illegal. But, in effect, considerable confusion exists concerning the regulations. Determining which activities are permitted for private merchants is less of a problem than determining which private merchants are authorized to participate in permitted activities. In other words, it appears that, so far as commercial regulations are concerned, "liberalization" does not imply "free" entry into the commercial profession. According to an official of the Ministry of Commerce, not every seller and buyer is a merchant in the legal sense. Furthermore, not every merchant is universally authorized to market all products. In effect, the regulations provide for several legal categories of merchants, including wholesalers/small wholesalers, chartered merchants, quota merchants and retailers. This paragraph will present these different categories of merchants.

Wholesalers/small wholesalers

To be authorized to market locally-produced goods at wholesale, whether in large quantities or small, the merchant must enjoy the status of wholesaler/small wholesaler. For the marketing of agricultural products such as cereals, bananas and potatoes, additional provisions are applied (see below).

The conditions for qualifying as a wholesaler/small wholesaler include: a) the provision by the merchant of a bank statement indicating a balance of three million CFA francs, b) the availability of storage facilities approved by the Economic Monitoring Directorate of the Ministry of Finance, and, c) the provision of a certificate of proper accounting procedures.

A commission which relies on the Price and Economic Monitoring Directorate for secretarial services is responsible for approving or rejecting requests made by all candidates. A card bearing photo identification is issued to those whose requests are accepted. We should note that, in theory, the status of wholesaler/small wholesaler is not limited to a certain time frame, provided that the merchant conforms to the provisions contained in the law 65-25.

Chartered merchants

The status of wholesaler/small wholesaler is a necessary, but not sufficient, condition for receiving authorization to market certain agricultural products. Thus, with respect to the marketing of millet/sorghum and corn, for example, generally only the chartered merchants are involved. Chartered merchants are wholesalers/small wholesalers who fulfill certain additional conditions, in particular the provision of a bank statement showing a minimum balance of five million CFA francs. Also, the status of chartered merchant is a temporary status. For example, to be chartered to participate in marketing millet/sorghum for two successive crop years, in theory the merchant must file a request for each year.

Quota merchants

To be authorized to market certain products such as husked rice, a merchant must be recognized as a quota agent. The quota agents are wholesalers/small wholesalers selected by the Ministry of Commerce, with selection based on the advice of a commission chaired by one of its representatives. Each quota merchant is granted a certain amount of rice to be marketed over a period of three months, during which one-third of the total amount must be marketed each month. The quota merchant is supplied from the CPSP warehouses. The CPSP itself is required to maintain at all times a security stock of rice equivalent to two months of national consumption.

Like the chartered merchant, the quota merchant has a temporary status. This status can be renewed at the merchant's request. Also, should the merchant fail to meet his quota, in theory the quota will be reduced or eliminated. The conditions required of a quota agent include, among other things, the possession of a wholesaler/small wholesaler card, and a commitment on the part of the merchant to personally take delivery of his quota and to resell it to retailers at official small-quantity wholesaler prices.

Retailers

To be able to retail most of the products available in local markets, the merchants must be recognized as a retailer. In theory, if he fulfills the conditions required by the regulations, he will receive authorization to sell at retail, and he can then be supplied by wholesalers/small wholesalers, quota agents or chartered merchants. In addition, as in the case of the wholesaler/small wholesaler, the status of retailer is not restricted to a particular time frame.

**Official Organization of Local Cereal Marketing
Campaigns: The Current Situation**

This section presents the regulatory provisions established for organizing marketing campaigns for local cereals (millet/sorghum, corn, paddy rice) in 1983/84 and 1984/85. The simultaneous presentation of the two marketing campaigns is justified by the fact that the decree defining the organization of the 1984/85 campaign was issued three months after the harvest, in other words during the marketing period. Thus, as regards the legality or illegality of certain commercial activities, the perceptions of both the participants and the government workers responsible for compliance were greatly influenced by the nature of the regulatory provisions defined during the previous campaign, i.e., in 1983/84. A comparison of the provisions adopted in 1983/84 and 1984/85 with the actual progress of marketing during these two campaigns will follow.

Section 3 will be devoted to a discussion of alternative approaches to commercial regulation that could provide a better framework for attaining governmental objectives in the cereal subsector.

The regulatory measures presented below are drawn from the text of decrees 84-053 and 84-1512, which define the official organization of the cereal marketing campaigns of 1983/84 and 1984/85, respectively, and specify the official opening date of the marketing campaign, the authorized purchase and sale prices, the conditions for transporting products, and the qualifications of the merchants authorized to participate in marketing, for example. Regarding the actual implementation of these marketing campaigns, reference will be made to preliminary results derived from surveys conducted by ISRA/BAME in the Groundnut Basin during the period from September 1983 to April 1985 and to discussions held with CSA and Ministry of Commerce officials. Finally, we will distinguish between two areas of cereal marketing: private marketing and state marketing.

State Marketing

State marketing refers to transactions conducted by the CSA or the CPSP, which operate at the level of the producers, the cooperatives/SVs or the SRDRs.

Millet/sorghum and corn

According to the decree of 1983/84, the CSA was not authorized to purchase directly from producers of millet/sorghum, but in time of need and on the instructions of the Ministry of Rural Development (MDR), the Commission would be supplied by wholesalers/small wholesalers. However, in the case of corn, it was stipulated that the quantities collected by the SRDRs must be resold to the CSA and the wholesalers/small wholesalers. During the campaign, the CSA bought no millet/sorghum or corn. CSA officials indicate that the Commission did not have necessary funds for the purchase of cereals. As a result, all marketing of millet/sorghum and corn during this campaign was conducted by private merchants.

In 1984/85, CSA participation was clearly planned. The campaign decree states that the quantities of cereals purchased by the CSA would be, by order of priority, resold to millers for industrial processing, resold for cash in areas experiencing shortages, or distributed free of charge to distressed populations.

The CSA was to purchase cereals either directly from producers of millet/sorghum, at the official price of 60 CFA francs/kg, or through the cooperatives/SVs at a price of 68 or 66 CFA francs/kg, respectively, depending on whether the cooperative/SV financed purchases from producers themselves or received prefinancing from the CSA. The cooperative/SV would thus receive a markup of 3 CFA francs/kg, would also be paid 3 CFA francs/kg for transporting the grain from the cooperative/SV warehouse to the CSA warehouse and, finally, would receive an "incentive bonus" of 2 CFA francs/kg if it financed its purchases itself. For corn, the CSA had signed marketing agreements with SODEVA, SOMIVAC, SODAGRI and SODEFITEX. These SRDRs purchase directly from producers with prefinancing from CSA and also collect repayments in kind on debts contracted by farmers. The SRDRs

reassign the product to the CSA at the price of 68 CFA francs/kg, of which 60 CFA francs/kg represents the producer price and 8 CFA francs/kg represents the expense of delivering the product as well as the SRDR markup (see tables 1 and 2).

The marketing goal for the CSA was 32,000 metric tons of millet/sorghum and 7,500 metric tons of corn, or 15% and 13% respectively of the estimated production of millet/sorghum and corn. CSA purchase operations had already begun in October 1984, although the 1984/85 decree was not issued until late December 1984. The quantities of millet/sorghum and corn eventually purchased by the CSA during the campaign amounted to 1,752 metric tons of millet and 498 metric tons of corn, or 0.4% of the estimated production of millet and 0.5% of the estimated production of corn.

This considerable gap between the results and the goals of state marketing of millet and corn can be largely explained by the significant difference prevailing between the official producer prices for millet and corn and the prices observed at the marketplace. In most cases, market prices were higher than official producer prices (figure 1). Having understood that they could obtain a better price in the "free" market, farmers were little inclined to market their produce through the CSA, the SRDRs or the cooperatives. According to the CSA, the millet it purchased came largely from cooperatives/SVs (87%), with the remainder coming from purchases made by CSA agents at the weekly markets and from sales made by farmers at the CSA warehouses. In addition, all the cooperatives/SVs which purchased millet received prefinancing from the CSA. Nonetheless, 14% of the 50 cooperatives/SVs surveyed by ISRA/BAME indicate that they had prefinanced private merchants to purchase millet for the benefit of the cooperative/SV.

However, the participation of the cooperatives/SVs was accompanied by serious difficulties; among the 160 cooperatives/SVs which received prefinancing, 38% were declared "litigious," meaning that either they supplied no millet and failed to reimburse the CSA for funds received, or that the value of the millet delivered to the CSA was less than the funds advanced to them by the Commission.

For corn, it is not surprising that the amounts marketed by the SRDRs fell well short of projections. Indeed, in 1983/84 the official producer

TABLE 1
OFFICIAL MILLET PRICES AUTHORIZED FOR THE 1983/84
AND 1984/85 MARKETING CAMPAIGNS

Purchasers	Cooperatives		CSA		Wholesalers/ Small Wholesalers		Retailers		Consumers	
	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85
Sellers										
Producers	55	60	58	60	55	60	-	-	-	-
Cooperatives	-	-	59 ^a	58 ^b	68 ^c	66 ^d	-	-	-	-
Wholesalers, small whole- salers	-	-	-	-	-	-	67 ^e	66 ^f	73 ^e	72 ^f
Retailers	-	-	-	-	-	-	-	-	69 ^e	68 ^f
									80 ^e	78 ^f

Sources: Decree 84-053 dated January 23, 1984 and decree 84-1512 dated December 21, 1984 defining the organization of the cereal marketing campaigns.

^aIncluding delivery to the CSA warehouse.

^bIncluding delivery to the cooperative warehouse.

^cIncluding delivery to the CSA warehouse and cooperative self-financing.

^dIncluding delivery to the CSA warehouse and prefinancing granted by CSA.

^ePrices in the city of Dakar.

^fPrices in other localities.

TABLE 2

OFFICIAL GRAIN CORN PRICES AUTHORIZED FOR THE 1983/84
AND 1984/85 MARKETING CAMPAIGNS

Purchasers	Cooperatives		SRDRs		Processing Industries		CSA		Wholesalers/ Small Wholesalers		Retailers		Consumers	
	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85
Producers	50	60	50	60	-	-	-	-	50	60	-	-	-	-
Cooperatives	-	-	-	-	-	-	NS ^a	68	NS	NS	-	-	-	-
SRDRs	-	-	-	-	-	-	NS	68	NS	NS	-	-	-	-
Wholesalers, small whole- salers	-	-	-	-	61	73	61	73	-	-	61 ^a	60 ^b	73 ^a	72 ^b
Retailers	-	-	-	-	-	-	-	-	-	-	-	-	63 ^a	62 ^b
													80 ^a	78 ^b

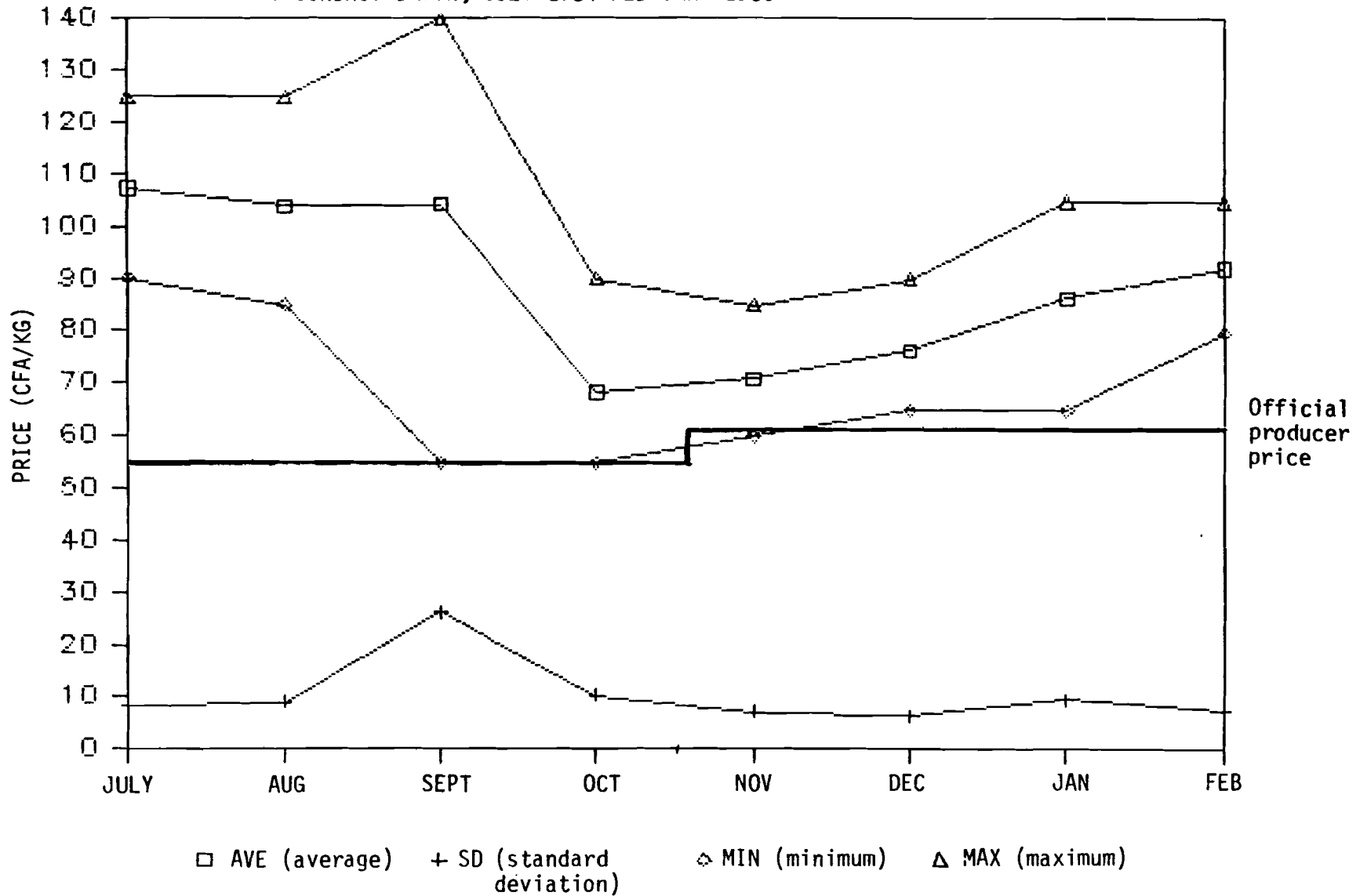
Sources: Decree 84-053 dated January 23, 1984 and decree 84-1512 dated December 21, 1984 defining the organization of the cereal marketing campaigns.

NS = Not specified.

^aPrices in the city of Dakar.

^bPrices in other localities.

FIGURE 1. AVERAGE MILLET PURCHASE PRICE
GROUNDNUT BASIN, JULY 1984-FEBRUARY 1985



Source: ISRA/Bureau of Macro-Economic Analysis Surveys.

price for grain corn was lower than the official price for millet. In 1984/85, the prices of the two products were placed at the same level. In contrast, the surveys conducted by ISRA/BAME showed that, in the different marketplaces, prices for grain corn were in all cases higher than prices for millet, even though in 1984/85 the record amount of 98,000 metric tons of corn was produced. It should, however, be noted that corn, unlike millet, is marketed in large quantities soon after the harvest in the form of green ears. This situation reduces considerably the quantities of corn marketed in grain form. Furthermore, in contrast with millet, the preparation of grain corn does not require the tedious operation of dehusking the product.

In a note on the "Preliminary Results of the 1984/85 Cereal Marketing Campaign," the CSA states that "what is important about the activities of the CSA is the encouragement and the promotion of cereal crops; the challenge was not to attain at any price the CSA marketing goals. The presence of the CSA prevented the producer price from dropping below its official level of 60 CFA francs/kg." However, the surveys conducted by ISRA/BAME indicated that, with the exception of the border regions where market prices were below official prices at the beginning of the campaign, support of producer prices was assured by the law of supply and demand.

It is clear that, from the point of view of promoting local cereals, supporting producer prices reduces, for the producer, the risks of a major decline in prices and thus facilitates the transition from cereal production for home-consumption to cereal production as a cash crop. If this objective is to be reached by means of a state agency such as the CSA, at least two conditions must be fulfilled: a) the range of objectives assigned to the agency must be compatible with its administrative, financial and other capacities; b) the different objectives must be clearly ranked in hierarchical fashion in order to guide more effectively the agency's operations, in effect by taking into account the principal objectives that are established. For example, if the primary objective of the CSA is to collect 32,000 metric tons of millet, it is likely that CSA agents could be directed to prohibit merchants from purchasing millet at prices higher than the official price in order to facilitate building up millet supplies. Such cases were pointed out to us at certain markets in the Groundnut Basin during the 1984/85 campaign. On the other hand, if the chief concern of the

CSA is to support producer prices, the CSA can only be delighted to see market prices above official prices, even if it buys no grain itself.

Local rice

The marketing of locally produced husked rice remains under the official monopoly of the CPSP. During the 1983/84 and 1984/85 campaigns, only SAED, SODAGRI, SOMIVAC and SODEFITEX were authorized to purchase paddy rice from producers. The collection of paddy rice by private merchants was thus considered to be illegal. Paddy rice is purchased by the SRDRs at the official producer price established by the government.

There is, however, a parallel private channel for local rice. This channel is very poorly understood. It is comprised of merchants who purchase paddy rice from the producer, dehusk it by machine (with a decorticator) or with a pestle, then distribute the product to the consumer. According to Morris (1985), the development of this marketing channel is a relatively recent phenomenon. Of the 141 decorticators he counted in the river region during the month of February 1985, more than 60% were less than 18 months old. Thus they were put into operation at the time of the 1983/84 harvest. In spite of its illegality, this marketing channel is very dynamic. Morris estimates that private decorticators have been used for 70% of the 7,700 metric tons of paddy rice dehusked each month in the river region since the 1984/85 harvest.

The key element which favored the development of this parallel channel during the 1984/85 campaign was the increase in the consumer price of rice. Indeed, in mid-campaign the government raised the consumer price of rice by 23%, to 160 CFA francs/kg. Yet, at the same time, the official producer price for paddy rice was held at 66 CFA francs/kg. The effect of this situation was to stimulate parallel marketing of local rice once the merchant could profitably purchase paddy rice from the producer at a price higher than the official price and/or resell husked rice at prices below the official consumer price.

The main problem in the marketing of local rice lies in the difficulty of simultaneously attaining two important but irreconcilable objectives. Indeed, the official monopoly on marketing paddy rice granted to the SRDRs

can be largely explained by the government's concern that the SRDRs furnishing extension services to farmers be able to collect on claims against the farmers and also that the SRDR rice mills be allowed to process as much rice as possible. At the same time, however, the legalization or the encouragement of the private sector with respect to marketing paddy rice would serve to enlarge the range of commercial opportunities open to producers. For producers, the lost opportunity for doing business is significant, especially when prices in the private market are higher than official prices and when the progress of the SRDR collection funds is well behind schedule.

Private Marketing (Millet/Sorghum and Corn)

The private marketing of cereals (millet/sorghum, corn) has always played an important role in the circulation of these products in Senegal (Van Chi Bonnardel, 1978). This type of marketing remains highly regulated. Even when marketing is authorized, the participants must fulfill certain conditions, products must be purchased and sold at established prices, and marketing must begin on a specific date.

Yet the government expects the private sector to make an important contribution towards attaining many objectives of the NAP. For this contribution to be effective, commercial regulations must be of such a nature as to encourage private agents not only to participate in marketing but also to take an interest in investing in the subsector. However, if the activities of the merchants are conducted in an atmosphere of risk and uncertainty (with respect to prices to be applied, regulations governing the transportation of cereals, etc.), then it is unlikely that the private marketing of cereals will obtain the expected results. The principal factors which led to a great number of difficulties in the operation of the marketing system during the marketing campaigns of 1983/84 include: the period of definition of regulatory provisions, the qualifications of the agents authorized to participate in marketing, the official prices of products and the official markups for private merchants.

Period of definition of regulatory provisions

The provisions which defined the official organization of the millet/sorghum and corn marketing campaigns for 1983/84 and 1984/85 were issued on January 23, 1984 and December 21, 1984, respectively (decrees 84-053 and 84-1512), in other words three to four months after the harvest of these products. As a result, from the time of the harvest until the decrees were issued, there was no legal basis for confirming or invalidating the legality of the commercial operations conducted during this period. For example, during the first months following the 1984/85 harvest, many merchants claimed that either their products were seized by government inspectors or that they were obliged to pay a fine because they were engaged in transporting millet/sorghum without carrying purchase invoices. Yet it wasn't until 1983/84 that merchants were asked to carry purchase invoices. Moreover, this had posed major practical problems insofar as it is difficult for the merchant to obtain an invoice from each farmer from whom he has purchased millet. This is why, in 1984/85, it was no longer required of merchants that they have invoices prepared for them. But since the decree was issued late, the government inspectors continued to refer to the provisions for 1983/84. Furthermore, after making it through the difficult period preceding the harvest, it is hard for a farmer not to market a portion of his production at harvest time. His cash needs are substantial during the period following the harvest.

Assuring the producer that he may legally sell a portion of his production at any time following the harvest (or at least for a clearly specified period) represents an important companion measure for the promotion of local cereals. Moreover, if private merchants are to handle the bulk of local cereal marketing, one might well question the need for establishing a date for officially opening the marketing activities. If at harvest time farmers have an urgent need for cash and may therefore find themselves at the mercy of private merchants who offer low prices for their cereals, postponing the start of the marketing activities by means of regulatory provisions hardly solves the problem. In effect, when marketing is officially suspended for three or four months after the harvest, the farmers' need to make sales is not similarly suspended. At the same time,

some merchants refrain from participating in marketing in order to avoid the risk of a fine, or else conduct their transactions discreetly without the knowledge of the government inspectors. In either case, the immediate effect would be to reduce the commercial opportunities open to the farmer.

Merchants authorized to participate in marketing

In order to purchase millet/sorghum and corn from a farmer and resell it wholesale in large or small quantities, a merchant must possess a wholesaler/small wholesaler card, which means that he must, among other things, provide a bank statement showing a balance of three million CFA francs.

Nonetheless, the surveys conducted by ISRA/BAME during the two marketing campaigns showed that an important portion of what was collected from farmers resulted from the purchase of quantities smaller than 100 kg, very often in the 3 to 20 kg range. The merchants conducting these transactions have a very limited credit standing. The quantities collected daily (300 to 800 kg) are generally resold the same day to official and unofficial wholesalers/small wholesalers. This style of operation translates as a rapid movement of produce and allows those involved to market many tons of cereals in a few weeks. The merchants acquiring the produce offer an important sales opportunity to farmers, because their system of marketing is adapted to the strategy of selling small quantities which many farmers favor. It is through these merchants and the official and unofficial wholesalers/small wholesalers that the regions with shortages are in large part supplied (Sidebe, Newman, Sow, Ndoye, 1985).

As a result, requiring that all purchases of millet/sorghum or corn directly from producers must only be made by wholesalers/small wholesalers effectively reduces to a considerable degree the range of commercial opportunities open to the producers. An easing of the conditions required for purchasing from producers would probably increase the amount of competition among merchants and, at the same time, limit the likelihood of corruption between merchants and government inspectors. This last point is very important. If it proves to be too expensive (in terms of time and money) to obtain a bank statement showing a balance of three million CFA

francs, or to arrange for storage facilities approved by the Price and Economic Monitoring Directorate, or to file monthly statements of purchases and sales with the Economic Monitoring services, it may make more sense for the merchant to conduct his activities illegally, in other words without fulfilling the requirements, by agreeing instead to give occasional payoffs to government agents during inspection periods. Facilitating entry into the commercial profession thus serves to reduce, on the part of the merchant, the appeal of conducting secret transactions or of seeking to strike "compromises" with the authorities responsible for monitoring commercial activities.

Official prices

In Senegal, establishing official prices for cereals is a tradition which dates back at least as far as national independence.

Sow (1983) estimates that during the decades of the 1960s and 1970s the official consumer prices for husked rice evolved (in real terms) in close relation with world market prices, even though the government taxed or subsidized Senegalese rice consumption, depending on fluctuations in the world market price of this product. Apart from rice, there are official prices for the principal cereals consumed in Senegal. But effective enforcement of official prices in the marketplace, especially for millet/sorghum and corn, represents an exception.

During the two marketing campaigns, the prices applied at each level of the marketing process (producer, small wholesaler, retailer) were established uniformly in all administrative regions of the country, except for Dakar, where prices were slightly higher. In this regard, it is interesting to note that for broken rice, most of which is imported, the official prices for each geographic region or zone are derived by adding a transportation charge to the Dakar price. The greater the distance from Dakar, the higher the consumer price in comparison with the rest of the country.

Nonetheless, the transportation of produce is an important element in the marketing of millet/sorghum and corn. In general, the production of millet/sorghum and corn is more concentrated in the South of the country.

Accordingly, consumption of these products by the populations of the North largely results from commercial transfers of the cereals from the South to the North. In 1983/84, 62% of millet/sorghum production and 48% of corn production came from the single region of Sine-Saloum, which contained only 19% of the national population in 1985.

The regulatory measures stemming from the equalization of cereal prices in all regions of the country and throughout the year (with the exception of Dakar) fail to stimulate the commercial transfer of cereals from the areas of relative surpluses (Sine-Saloum, Casamance) to the areas of clear shortages in the North of the country. Indeed, the official price structure established during the 1983/84 and 1984/85 marketing campaigns implies that if a merchant purchases millet, for example during the month of November 1984 in Kaolack or Fatick, then stores it until August 1985 before transporting it to Louga, he will have to resell his product in Louga at the same price he would have charged in November 1984 in Kaolack or Fatick. Therefore, if the official prices were to be enforced, it is unlikely that a merchant would agree to supply the areas experiencing shortages.

Consequently, one might well wonder about the objectives of the official price structure. There is a variety of objectives which a government might attempt to accomplish by means of a pricing policy, in particular the promotion of the production and consumption of certain products, the protection or improvement of the real income of producers or consumers, and the stabilization of market price fluctuations, for example. However, simply wanting to set a price at level x is not sufficient to make it happen. Appropriate companion measures must be set in place. Thus, a fixed consumer price may require either an infinitely elastic supply of the product at the stated price, or else a rationing of the product or a massive policing effort. If a government is not prepared to accept the costs of these alternatives--which can be high--including the difficult task of administering these options, the decreed price will not be adhered to.

Official markups

At the same time that it establishes the official prices for different stages of the marketing process, by implication the government also

determines the merchants' gross markup. A merchant's willingness to create commercial opportunities for producers, supply consumers, store cereals for a certain period of time, transport the cereals from one geographic zone to another and, finally, accept a given interest rate for his borrowed capital depends on the potential remuneration which these varied functions will allow him to obtain. At the present time, it is difficult to know whether the income earned by merchants is "reasonable" or "exploitative" without knowing the expenses incurred by merchants in performing these different activities.

However, if the official markups established are simply the result of the official price structure that is adopted, there is a risk that the merchants' markups will be determined independently of the costs actually sustained by the merchants. Consequently, if the official gross markup for merchants underestimates the costs they incur, merchants will either choose not to comply with the official prices, so as to avoid operating at a loss, or else they will decide against participating in the marketing of cereals. In either case, the successful completion of the government's objectives is jeopardized.

SUMMARY AND CONCLUSIONS

Harmonizing Regulatory Measures and Government Objectives

The general approach of the Senegalese government with respect to the local cereal subsector has been clear defined in many official reports and speeches (MRD, 1985). The decision in favor of liberalizing the markets is unambiguous.

Administering a general policy of this sort requires, among other things, setting up appropriate regulatory mechanisms intended to stimulate the performance of the marketing system in the direction of the government objectives. Yet what has occurred during the two most recent marketing campaigns is that, in order to be authorized to purchase millet or corn from the producer, the merchant had to provide, among other things, a bank statement showing a balance of three million CFA francs; he was not allowed

to conduct transactions until after the official opening of the marketing campaign; and he had to resell his millet or corn at the same price in surplus areas as in areas experiencing shortages (with the exception of Dakar).

These regulatory provisions can have a detrimental effect on the marketing of millet/sorghum or corn. For example, in order to collect 100 kg of millet from the producer--in other words, based on the producer price, a quantity worth 6,000 CFA francs--the merchant must deposit three million CFA francs in a bank. Further, one might wonder whether obtaining a sum of three million francs necessarily implies that the merchant is now capable of participating in the marketing of millet/sorghum or corn. Moreover, if most purchases from producers are made by private merchants, what is the point in linking the start of marketing activities to the official opening of the campaign? In 1984/85, the decree indicating the opening date for the campaign and the organizational methods to be used in the campaign was not issued until late December 1984, in other words three to four months after the harvest.

Finally, there are at least two considerations which militate against the current fixing of millet/sorghum and corn prices. On the one hand, the government does not currently possess the means for its policy of fixing prices. Indeed, ever since independence in Senegal, the amounts of millet/sorghum marketed through these channels represent, on average, 2.08% of total production. In other words, even if the market prices fall short of the official producer prices and exceed the official consumer prices, neither the producer nor the consumer has any available alternative where he can purchase or sell millet at the official price. Thus the only real alternative remains the private market. Consequently, an improvement in the functioning of the market, for example by stimulating competition among merchants, etc. (this could be achieved by facilitating the merchants' access to the marketing of millet/sorghum and corn), could greatly contribute to improving the performance of the marketing system. Expressed in other terms, the market must be conceived as an instrument for commercial regulation, rather than as the object of the regulations.

Pricing Policy for Agricultural Products

The price of agricultural products has an important impact on the amounts of local cereals which the producer intends to market, or even produce, as well as on the importance of local cereals in consumer purchasing. In addition, the different levels of cereal prices influence the willingness of the merchant to provide commercial outlets for producers and supply cereals to areas with shortages, avoiding the necessity of a costly government operation.

If the official prices for cereals are set at inappropriate levels, enforcing the prices may discourage production and consumption of these products, as well as the storage and transportation activities of private merchants. This would lead to an increase in government expenses for purchasing, transporting and storing cereals from outside the country.

One of the key elements of the NAP involves the promotion of the production and consumption of local cereals. Successfully carrying out a policy of this sort requires that the government seek to understand the means for stimulating the production and consumption of cereals and, at the same time, for encouraging the participation of merchants in the cereal marketing process. Moreover, it is important that the government define its role and specify its objectives with respect to the cereal subsector.

In Senegal, the desire of the authorities to liberalize agricultural markets is a current reality. However, it is likely that the government will continue to employ a price fixing policy as a means to limit the uncertainty experienced by producers and consumers. At present, the traditional cash crops (groundnuts, cotton) benefit from a price guaranteed directly or indirectly by the government.

Total uncertainty with respect to producer prices for cereals would make cereal production for market a risky business, in comparison with the traditional cash crops.

In the following sections, we will evaluate various pricing policy options in light of the government's objectives. Emphasis will be placed on the actual purpose of setting cereal prices and commercial markups. This is a necessary precondition for determining an absolute and relative levels of agricultural prices.

Floor Prices, Ceiling Prices or Fixed Prices

Calling for a total liberalization of the cereal markets may compromise the accomplishment of government objectives. Indeed, during a period of very good production, the potential for a major decrease in prices could lead to a decrease in producer income. Such a situation could, in the future, cause the producer to cut back on planting millet/sorghum or corn. Similarly, during a drought a major rise in consumer prices could discourage consumption of local cereals and lead the consumer to seek out less expensive substitutes.

The concepts of floor prices and ceiling prices may offer an interesting framework for facilitating the implementation of a policy of promoting local cereals.

Floor prices

A floor price for producers is essentially a guaranteed minimum price which producers can obtain by selling their product to a private individual or a government or parastatal organization. This price is different from a uniform price because whenever the producer is able to find a more lucrative outlet for his product, he is not obliged to sell at the floor price. Thus, the floor price can be viewed as a form of insurance for producers.

For the government, setting a price involves a commitment to purchase cereals at the minimum price, institute subsidies or else initiate a system of incentives or sanctions targeting market participants (cooperatives, merchants, etc.) in order to make certain that outlets exist for the producer at prices equal to or higher than the floor price. At the same time, if the prices paid to producers are higher than the floor price, the government would not need to intervene.

Nevertheless, it is important to remember that if the government sets a floor price, it must be prepared to sustain certain costs in order to guarantee the effective existence of a minimum producer price for local cereals.

Setting a floor price for cereals can stimulate the production of these products insofar as it reduces the risk to the producer of a major drop in the price of his cereal products, both in absolute terms and in relation to other cash crops.

Ceiling prices

A ceiling price is established when the government wants to limit the risk to the consumer of paying prices higher than a determined level. Since the consumer will seek to purchase substitutes when the price of local cereals goes up, a ceiling price can be maintained through a combination of food product imports, the distribution of food assistance, subsidies and also the use of police authority. From the point of view of the government's role, the difference between a fixed price and a ceiling price is that, in the latter case, the role of the government is limited to simply monitoring the price levels. The government will need to intervene only when prices approach the level of the ceiling price.

The combination of floor prices and ceiling prices allows the government to make certain that the producer price levels and the consumer price levels remain within a specified range. Managing a price system of this sort appears simpler and perhaps less expensive than managing a system which comprises a fixed producer price, a fixed small-quantity wholesale price and a fixed consumer price.

Presently, the regulations on millet/sorghum and corn prices are characterized by considerable uncertainty on the part of producers, merchants, agents responsible for enforcing the regulations and administrative officials. For example, during the 1984/85 marketing campaign, the producer price for millet was in certain cases treated as a fixed price. This was particularly true in some rural markets where merchants were prohibited from purchasing millet from farmers at any price higher than the official price of 60 CFA francs/kg. In the opinion of many merchants, this decision greatly reduced the desire of producers to market their millet, and secret transactions, conducted away from the marketplace, had begun to occur. Consequently, if the nature of the official prices were explained even before the opening of the marketing campaign, there would be

less confusion concerning cereal marketing; at the same time, the appropriate role for the government to play in marketing would be known in advance. The announcement of the official cereal prices made recently by the President of the Republic, three months before the planting season, represents an important step in this direction. However, even though the way groundnut marketing is to be organized has been specified by the Head of State, it remains true that, in the future, the announcement of the official cereal price levels must be immediately supplemented by explanations concerning the nature of these prices (fixed, floor or ceiling prices), the agents authorized to participate in marketing and the conditions governing the transportation of products from one region to another.

APPENDIX

SELECTED OFFICIAL REGULATIONS OF MILLET/SORGHUM MARKETING: 1979/80-1983/84

Event	Periods	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Official opening dates of marketing season		Nov. 19, 1979	Nov. 19, 1980	Oct. 1, 1981	Nov. 15, 1982	Nov. 2, 1983	Oct. 15, 1984
Announcement of official prices		Nov. 19, 1979	Nov. 11, 1980	Oct. 1, 1981	Dec. 8, 1982	Nov. 7, 1983	Oct. 8, 1984
Signature of annual regulations specifying participants		Jan. 4, 1980	Nov. 11, 1980	Oct. 2, 1981	Dec. 8, 1982	Jan. 23, 1984	Dec. 21, 1984
Authorized purchasers/first handlers - producer level		- Authorized licensed wholesalers (agrees)	- Producer cooperatives	- Producer ¹ cooperatives	- Producer cooperatives - CAA - Authorized licensed wholesalers	- Licensed wholesalers - Producer cooperatives	- Licensed wholesalers - CSA - RDAS - Producer cooperatives
Authorized purchasers from first handlers above		- Authorized licensed wholesalers	- CAA - Processing industries - Authorized licensed wholesalers	- CAA - CPSP - Authorized licensed wholesalers	- CAA - Authorized licensed wholesalers	- Licensed wholesalers - CSA eventually	- CSA - Licensed wholesalers - Rural development agencies

¹In March 1982, another decree was signed stating that, besides producer cooperatives, the CPSP, the CAA and authorized licensed wholesalers were allowed to purchase millet from producers.

References: Decrees 80-808 of Jan. 4, 1980; 80-1135 of Nov. 11, 1980; 81-889 of Oct. 2, 1981; 82-967 of Dec. 8, 1982; 84-053 of Jan. 23, 1984; 84-1512 of Dec. 21, 1984.

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