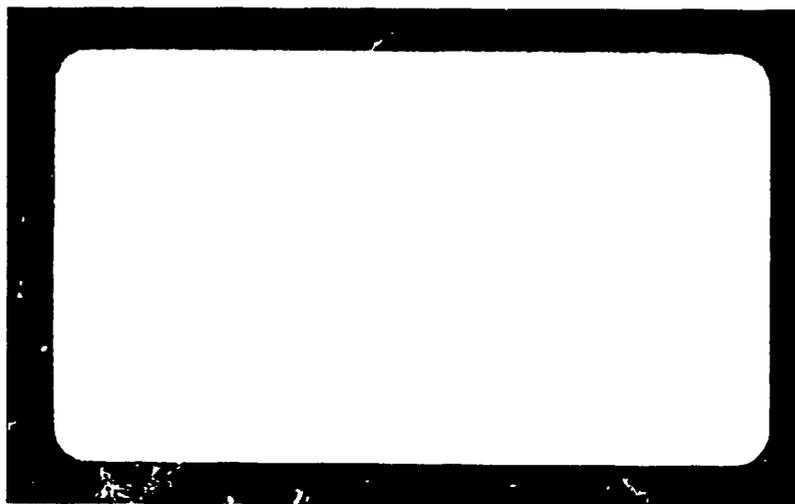


MINISTÉRIO DA AGRICULTURA

Direcção Nacional de Economia Agrária

Relatórios Preliminares de Pesquisa



República de Moçambique

**A Socio-Economic Survey in the Province of
Nampula: Agricultural Marketing in the
Smallholder Sector**

**By
MOA/MSU/UA Research Team**

**Working Paper NO. 4E
January, 1992**

W

NATIONAL DIRECTORATE OF AGRICULTURAL ECONOMICS

Working Paper Series

The working paper publication series is designed to provide users with timely research results while refinements and longer term synthesis are completed, and final reports are available. The preparation of working papers and their discussion with those who design and influence programs and policies in Mozambique is an important step in the Directorate's overall analysis and planning mission.

Comments and suggestions on these working papers by interested users help identify additional questions for consideration in further research and help refine major reports being written by Directorate researchers. Users of these working papers are encouraged to submit comments and inform us of on-going information and analysis needs.

Paulo F. Zucula
Vice-Minister
Ministry of Agriculture

Ragendra Berta de Sousa
Director
National Directorate of Agricultural Economics
Ministry of Agriculture

ACKNOWLEDGEMENTS

The National Directorate of Agricultural Economics is undertaking collaborative research in the food security area with Michigan State University (the Department of Agricultural Economics) and with the University of Arizona (the Department of Agricultural Economics and the Bureau of Applied Anthropology Research).

We wish to acknowledge the financial and substantive support of the Ministry of Agriculture of Mozambique and the United States Agency for International Development (USAID) in Maputo to complete food security research in Mozambique. Research support from the Africa Bureau and the Bureau of Research and Development of AID/Washington have also made it possible for Michigan State University researchers to participate in this research, and to help conduct field activities in Mozambique.

Leopoldina Dias
Markets and Pricing Division
Ministry of Agriculture, Mozambique

Raul Jorge G. Varela
In-Country Director, Food Security in Africa
Cooperative Agreement Activities in Mozambique
Department of Agricultural Economics,
Michigan State University

MOA/MSU/UA RESEARCH TEAM MEMBERS

Paulo F. Zucula, Vice-Minister
Ragendra Berta de Sousa, Director
Leopoldina Dias, Project Coordinator and Analyst
Higino Francisco De Murrule, Research Associate
Ana Paula Manuel Santos, Research Associate
Mathias Isac Mugabe, Research Associate
Raul Jorge G. Varela, MSU In-Country Project Director
David Tschirley, MSU Analyst
Michael T. Weber, MSU Analyst
Paul Strassberg, MSU Research Assistant
Cynthia Donovan, MSU Research Assistant
Tim Finan, UA Analyst
Mark Langworthy, UA Analyst
Roger Fox, UA Analyst
Catherine Tucker, UA Research Assistant

CONTENTS

I.	INTRODUCTION	1
II.	PROBLEM DISCUSSION	1
III.	CURRENT DEBATE	2
IV.	METHODOLOGY	2
V.	RESULTS	3
	Marketing Behavior of Smallholders	3
	Perceptions Regarding Farmer Behavior	5
	Periods of Sale	8
	Producers' Perceptions of Changes in the Commercial System	10
	Market Entry and Prices Paid	12
VI.	CONCLUSIONS	15
VII.	FURTHER RESEARCH	16

LIST OF TABLES

Table 1.	Smallholder Food Market Behavior in Three Districts in the Province of Nampula (Angoche, Monapo, and Ribaué) . . .	4
Table 2.	Percentage Breakdown of Total Sales Value, by Village . . .	6
Table 3.	Net Kilocalorie Availability per Adult Equivalent by District and Food Market Behavior Classification	7
Table 4.	Total Value of Agricultural Sales of Sampled Households, by Season and Village (Mt)	9
Table 5.	Breakdown of Total Sales Value, by Crop, District and Season	10
Table 6.	Volume of Purchases and Average Price Paid to Sampled Households by Type of Trader, in Monapo, Ribaué, and Angoche in the Province of Nampula	13
Table 7.	Percentage Distribution of Total Sales by Type of Trader and Village	14

A Socio-Economic Survey in the Province of Namupa: Agricultural Marketing in the Smallholder Sector

I. INTRODUCTION

A ten year civil war, along with a long history of tight control over the operation of the private sector, has had a profound impact on Mozambique's rural agricultural marketing system. Heavy destruction of infrastructure, continuing risk of attacks, and uncertainty regarding the content of political reform have hindered the ability of farmers and merchants to respond to the more liberalized policy environment which has been instituted under the Economic Rehabilitation Program (ERP). But in spite of these limitations, preliminary survey analyses indicate that Mozambican smallholders participate to a surprising degree in food and cash crop markets, primarily as sellers, but also to some extent as buyers.

The objective of the present study is to use data from a rural survey of smallholders carried out in July/August of 1991 to evaluate the nature and degree of problems faced by these farmers during the transition from a highly controlled to an increasingly market oriented economic system.

II. PROBLEM DISCUSSION

The structure, conduct, and performance of agricultural marketing systems are substantially influenced by the policy and legal environment and the basic conditions (physical infrastructure, levels of risk, and others) in which the system operates. Basic conditions in Mozambique have, over at least the past ten years, been extremely unfavorable for the establishment of an economic system based upon efficient and effective markets. The policy environment for such a system has been characterized by the following:

- a. For 15 years the prevailing system was a centralized economy based on market and price controls. Participation of traders in the market was strictly controlled by means of a system of legal monopolies; transport of products outside their district of origin was prohibited without prior authorization.
- b. Official prices were set without reference to real scarcity values. Particularly after the launching of the ERP and the consequent market liberalization, so-called parallel markets ("dumbanengues") have accounted for an ever increasing volume of products at prices that bear little or no relationship to official prices.
- c. These policies, along with the war, prevented the development of a stable and effective private marketing system, and have diminished incentives for production and marketing of agricultural goods.

The thrust of the ERP in the agricultural sector has centered on removing barriers to entry in the trading system, allowing free movement of products across administrative boundaries, and allowing prices to fluctuate with supply and demand. The principal objective of these steps was to increase

production incentives for farmers, especially smallholders, with a view towards reducing the country's heavy dependence on imports and food aid.

Four years after the launching of the program there is still great doubt and uncertainty regarding its impact. At certain levels there are signs of resistance to the implementation of the reforms, together with the belief that market liberalization will make smallholders more vulnerable and less food secure.

III. CURRENT DEBATE

Several hypotheses may be raised regarding the changes in rural markets and their potential effects on the smallholder sector. One of these is linked to the behavior of different types of buyers of agricultural products. The role of the traveling merchant, or "ambulante," in the marketing of products in rural areas, and his impact on producers, is much debated in Mozambique in spite of the limited amount of empirical information on the matter. An argument commonly heard is that ambulantes reduce the level of control which authorities have over the marketing process, even generating "anarchy" and destabilizing the market where they operate. Others argue that these merchants bring expanded competition, and that such change favors producers because the merchants must offer - and have been offering - better prices in order to attract product away from competitors such as AGRICOM and rural "lojistas" (store owners).

Yet another hypothesis concerning the impact of the liberalization of rural markets argues that such changes enable smallholders to diversify their marketing strategies. Thus, instead of having to sell all of their products during the harvest period, they may be able to save part of the production to sell at a later time, when prices may be more attractive given the existence of several buyers and the reduction of restrictions on marketing.

It is an empirical question whether there are indeed producers who follow this strategy, or whether they cannot store their products because of safety reasons, or even if the changes in centralized policies have trickled down to the rural areas.

IV. METHODOLOGY

During June, July, and August, 1991, a smallholder survey was conducted in three districts of Nampula. Overall, 343 farming families were interviewed (mostly in Macua, the local language) by 15 local interviewers specifically trained for the task. The analyses in this document were based on data from the survey. For more details on the survey methodology, refer to "Relatorio Preliminar de Pesquisa n 3" from DNEA - "Inquérito ao Sector Familiar da Provincia de Nampula: Observações Metodológicas" (also available in English as Working Paper No. 3E).

The survey covered the districts of Angoche, Ribaué, and Monapo. Since these districts were not chosen at random, the extrapolation of results to include the whole province is not recommended. Nevertheless, we believe that these districts are representative of the three principal ecological

zones which, moreover, exhibit distinct socioeconomic features within the province.

When traveling east-west in the province of Nampula, there are sharp agroecological contrasts. Along the coastal zone, agro-climatic features account for an agricultural pattern that is clearly distinct from that found in the interior. Likewise, a transition zone lies between those two zones; this becomes evident both in terms of soil and in terms of rain patterns. Thus, together with some crops of relative economic importance such as peanuts and manioc, perennial cash crops (cashews and coconut) and rice predominate along the coast. On the other hand, grains, particularly corn and beans, prevail in the interior to the extent that this region is often referred to as the breadbasket of the provinces in the north of the country. The intermediate zone, however, with its vast expanses of red soil plains suitable for mechanized tilling, is used for cotton growing. Based on these facts, the survey sample was structured to reflect physical differences. Therefore, the selection of sites pointed to Angoche as representative of the coastal zone; Monapo, as transition zone but mainly as a relevant cotton-growing region; and Ribaué, as representative of a "breadbasket" district of the interior.

The survey instrument included sections on household structure, purchase and sale of labor, land areas and cropping patterns, production, sales, livestock stocks and flows, expenditures and consumption (24 hour recall), as well as "diagnostic" questions at the household level regarding farmer perceptions of their situation.

The authors believe that the results of the survey offer representative information regarding the socioeconomic problems and opportunities encountered by smallholder farmers in Nampula, although in a strictly statistical sense, the quantitative results are not representative of the entire province.

V. RESULTS

The present document will examine three themes linked to the current debate:

- a. Marketing behavior of the smallholder with special emphasis on purchases and sales of food.
- b. Perceptions of the producers regarding changes in market structure and in government agricultural policies in the last five years.
- c. Empirical information regarding these structural changes, especially with respect to new participants and prices paid to producers.

Marketing Behavior of Smallholders

Table 1 shows four groups of producers in each district, classified according to their behavior relative to the sale/purchase of foodstuffs. These groups are mutually exclusive, and each will be affected differently by government policy, especially price policy.

Should there be policies stressing price increases as a means to encourage agricultural production, those farmers who only buy, and those who buy more

Table 1. Smallholder Food Market Behavior in Three Districts in the Province of Nampula (Angoche, Monapo, and Ribaué)

Smallholder Market Behavior	Districts		
	Monapo	Ribaué	Angoche
	% of Family Farmers in each Category		
Buy only	7.3	4.2	2.6
Buy and Sell	13.8	5.0	5.2
Sell only	53.2	63.0	83.5
Neither Buy nor Sell	25.7	27.7	8.7

NOTE: Food crops are corn, manioc, beans, rice, peanuts, and sorghum
 Source: MA/MSU/UA Smallholder Survey

than they sell will see their income reduced, at least in the short-run. In contrast, farmers who only sell and net sellers (selling more than buying), will enjoy increased income. Farmers not participating in the market will remain largely untouched by price policy. But policies and investments which result in increased competitiveness, efficiency, and efficacy in the market will help all farmers who are already active in the market. They will also encourage participation on the part of those who, for whatever reason, currently remain outside the system. In the long run, this would result in the improvement of the commercial system, which in turn is a "sine qua non" for improvement of the welfare of rural populations.

The table at hand shows, first, that the great majority of producers participate in one way or another in the marketing of agricultural products. Angoche exhibits the highest level of participation, with over 90% of farmers who buy or sell foodstuffs. Monapo exhibits the highest percentage of buyers, with 21% classified in the "buy only" or "buy and sell" groups. Clearly, however, the great majority of farmers who are participating in the food market are doing so only through sales, not purchases.

Nevertheless, the importance of food purchases for those who make them should not be underestimated. Those who buy foodstuffs but do not sell (the first group in Table 1) buy an average volume equal to 124% of their production. In terms of averages, then, this group relies more on market purchases than on production for its food supply. Thus, the food security of this group depends greatly on the effectiveness of rural food markets. It is also worth noting, however, that only 5% of the sample had a volume of purchases greater than 50% of their production. Thus, we may conclude that purchases of foodstuffs are quite important for some households, but that these account for a very low percentage of the rural population in the study area.

Table 2 examines the importance of food relative to other agricultural sales in the total sales income of farm households. It shows great variation between districts and villages in the importance of different products. For instance, in Angoche, corn represents only 3%, while in Ribaué it reaches almost 40% of the total value of sales. Similarly to corn, beans are more important in the farming economy of this district than in any other. This is especially true in villages located near the train station (providing a market outlet to Nampula City) such as Moçambique Novo (18%), and Mucú (21%). Manioc is the third crop of importance for cash earnings in Ribaué, though it is relatively unimportant in two of the five villages surveyed. Overall, two-thirds of all cash earnings from agricultural sales in Ribaué come from crops traditionally viewed as pillars of the "subsistence" small-holder economy - corn, beans, and manioc.

Manioc, rice, and peanuts hold a similar though less preponderant position in Angoche. This district's dependence on food crop sales is mitigated by the importance of cashew nut, which accounts for nearly 30% of all sales. A point worth noting in Angoche is the relative homogeneity of the five surveyed districts in terms of their portfolio of sales. Sales in all villages are dominated by the three food crops and cashew, with each of the four playing an important role (except for peanuts in Monari). Ribaué and Monapo show much greater variability of income sources across villages.

Villages in Monapo tend to specialize in cotton and therefore do not depend to as great an extent on the sale of foodstuffs. For instance, the village of Mecutine shows 84% of its sales in cotton, contrasting with 3% in corn, and 2% in beans. There are exceptions, however, such as Muelege, where 33% of sales were corn, 20% were manioc, and only 16% were cotton; and Mutarauatane, with 13% of sales from manioc, 14% from rice, and only 10% from cotton. Together with cashews, this product represents 62% of total sales in Monapo.

Perceptions Regarding Farmer Behavior

A frequently voiced concern in Mozambique is that market liberalization would promote excessive sales of foodstuffs by farmers, thus compromising their food security. A related concern is over "distress sales", in which farm households may sell food at harvest to meet pressing cash needs and then not be able to purchase it back during the hungry season.

Table 2. Percentage Breakdown of Total Sales Value, by Village

District/Village	Product							
	Corn	Beans	Manioc	Rice	Peanuts	Cotton	Cashew Nuts	Sugar cane liquor
	----- % of Total Sales Value -----							
MONAPO	10	4	8	2	4	41	21	4
Netia	3	7	3	0	0	46	39	0
Muelege	33	1	20	1	0	16	21	2
Mpatha	0	9	3	2	13	40	20	3
Mecutine	3	2	0	0	1	84	3	4
Mutarauatane	8	0	13	14	10	10	27	12
RIBAUE	37	11	19	4	0	6	1	16
Mocambique Novo	23	18	41	7	0	2	3	7
Mucu	21	21	9	11	0	0	0	32
Natere	57	2	11	2	1	8	0	6
Tanheia	46	3	27	1	0	14	0	10
Mape	37	14	9	0	0	6	1	25
ANGOICHE	3	3	22	16	13	0	28	0
Napruma	6	2	18	15	15	0	29	0
Namapuiza	1	3	31	24	20	0	16	0
Namitoria	5	1	25	14	12	0	20	0
Macogone	1	5	18	11	14	0	41	0
Monari	0	3	22	21	6	0	30	0

Source: MA/MSU/UA Smallholder Survey

Table 3 sheds some light on this issue. It contains data on net household calorie availability per adult equivalent, broken down by food market participation.¹ In the districts of Ribaué and Angoche, the data are clear: farmers who only sell and those who buy and sell retain more calories per adult equivalent than other groups. In Monapo, the group that only sells shows a greater supply of calories, while those who buy and sell

Table 3. Net Kilocalorie Availability per Adult Equivalent by District and Food Market Behavior Classification

District	Food Market Behavior				Mean
	Buy only	Buy and Sell	Sell only	Neither Buy nor Sell	
	----- Kilocalories/Adult Equivalent -----				
MONAPO	2421	2235	2901	1987	2527
RIBAUE	2173	3564	2591	2178	2495
ANGOICHE	1898	2288	2069	1390	2015

NOTE: Food crops are corn, manioc, beans, rice, peanuts, and sorghum.
Source: MA/MSU/UA Smallholder Survey

place third. As expected, the group that does not participate in the market, neither to sell nor to buy, retains less calories in all of the districts, with net availability varying between 1390 and 2178 calories per adult equivalent.

¹Net availability is calculated as follows:

$$K_a = K_P - (K_S + K_D + K_L) + (K_R + K_B)$$

Where, K_a = net calories available for consumption,
 K_P = calories produced,
 K_S = calories sold,
 K_D = calories used for seed
 K_L = calories paid in-kind to hired labor,
 K_R = calories received in-kind for work off-farm, and
 K_B = calories purchased (bought).

Two points should be emphasized regarding this calculation. First, it does not consider calories given or received through traditional exchange mechanisms such as "okhalihana" and "ovahewa." These were frequently mentioned in the survey, and could be important sources of calories for those households with the least food available. Second, the calculation does not include changes in food stocks, thus implicitly assuming that there was no change. This assumption is probably acceptable for most households, but may not be for all.

The calorie retention levels of this non-participant group are quite low, reaching only 56% (Angoche), 79% (Monapo), and 87% (Ribaué) of the 2500 daily calories considered by FAO to be required for "normal" activity levels. The extremely low value recorded in Angoche may be due to the fact that the survey failed to fully document all food purchases, such as fish, which in that coastal district may play a considerable role in the dietary habits of the people.

Periods of Sale

Farm households typically have some important consumer good needs which can be satisfied once a year. Thus, it is usual to see some concentration of sales immediately following the main harvest. An outstanding example in Mozambique is clothing, which absorbs a significant portion of cash income and tends to be purchased during the harvest season. Taxes and school fees also follow this pattern.

But households also have certain recurrent needs, often for food items not produced on the farm. Too, food needs may increase substantially during the hungry season (approximately December through April). In the absence of food stocks or credit, these needs must be met either by sales (of products and/or labor) throughout the year or, less likely, by unspent cash from harvest season sales.

Table 4 shows the value of sales of the sampled households at different times of the year by district and village.² Based on the interpretation of variations in product availability and commercial dynamics during a production and marketing year, four distinct periods were established. As expected, the majority of sales in any district take place during harvest time. Nonetheless, there are variations in amounts and values of sales between villages and districts throughout the year. Angoche shows a cash income that is much higher than any of the other districts; Ribaué has roughly half of the cash revenues of Monapo.

When compared to the other two districts, Angoche has higher revenues during planting season, possibly due to the volume of sales of cashew nuts during that period. Cash earnings are relatively high in all villages of the district, especially in Namitória, Macogone, and Monari, which can be classified as actively commercial villages. With the exception of Mecutine, the villages in Monapo had more sales during the hungry period than the villages in other districts. Overall, harvest season sales as a percent of total sales are 60% in Monapo, 57% in Ribaué, and 69% in Angoche.

The high level of cash earnings in Angoche is striking in light of the relatively low level of net calorie availability. Clearly, smallholders in Angoche are not using their cash income to purchase significant volumes of food (this was confirmed in Table 1, which showed that Angoche had the lowest proportion of food buyers of any of the districts). This situation is likely due in part to the general unavailability of food for sale in rural markets. This is not a problem unique to Angoche. It has been observed during field visits in Ribaué and also to a lesser extent in

² These figures have not been expanded, and thus do not represent total sales figures for each village.

Monapo. It is a cause for concern from at least two perspectives. First of all, a lack of food for purchase limits the ability of smaller farmers to meet their family's food needs. Second, farmers are very unlikely to put more resources into the production of cash crops (which earn much needed foreign exchange for the country) if they cannot be assured of a reliable supply of food (along with consumer items) to purchase with their cash earnings. Thus, the lack of effective rural food markets can strongly inhibit the modernization of the smallholder sector.

Table 4. Total Value of Agricultural Sales of Sampled Households, by Season and Village (Mt)

District/Village	Sales Period				Total
	Planting	Hungry Season	Harvest Season	Various	
MONAPO	----- Total Value of Agricultural Sales -----				
NETIA	83,733	1,150,917	1,568,100	55,250	2,858,000
MUELEGE	379,167	690,317	2,198,960	54,000	3,322,443
MPATHA	143,958	317,000	1,124,300	95,000	1,680,258
MECUTINE	117,000	126,667	4,065,650	416,000	4,725,317
MUTARAUATANE	439,333	492,833	981,250	1,560,000	3,473,417
Total	1,163,192	2,777,733	9,938,260	2,180,250	16,059,435
RIBAUE					
MOC. NOVO	120,000	3,000	271,975	90,000	484,975
MUCU	15,000	3,000	496,620	358,000	872,620
NATERE	25,000	120,000	914,600	769,500	1,829,100
TANHEIA	7,500	28,000	1,661,350	14,530	1,711,380
MAPE	110,500	124,000	1,460,800	1,828,600	3,523,900
Total	278,000	278,000	4,805,345	3,060,630	8,421,975
ANGOICHE					
NAPRUMA	861,960	186,500	2,067,583	165,500	3,281,543
NAMAPUIZA	127,000	146,500	1,569,399	53,000	1,895,899
NAMITORIA	1,092,900	556,000	2,877,458	418,000	4,944,358
MACOGONE	1,046,900	923,500	4,354,107	89,400	6,413,907
MONARI	481,800	224,000	3,976,096	146,900	4,828,796
Total	3,610,560	2,036,500	14,844,642	872,800	21,364,502

Source: MA/MSU/UA Smallholder Survey

Table 5 shows the relative importance of different crops for each period's sales. In general, sales outside of the harvest season do not come from stocked products but rather from manioc and cashew nuts harvested between September and December.³ In all districts, these two crops represent between 95% and 100%, respectively, of sales during those periods. Manioc occupies a prominent sales position during the hungry period in Ribaué and

³See "A Socioeconomic Survey of Nampula Province: Smallholder Survey Methods" for more detail on crop calendars and the timing of different crop harvests.

Table 5. Breakdown of Total Sales Value, by Crop, District and Season

District/Period	Other Crops	Manioc	Cashews	Vegetables/Fruit	Cotton
MONAPO					
	----- % of Total Sales Value -----				
Planting (Aug-Dec)	0	29	71	0	0
Hungry Season (Dec-Apr)	0	16	83	1	0
Harvest Season	21	1	1	1	68
Various	0	100	0	0	0
RIBAUE					
Planting (Aug-Dec)	0	58	36	6	0
Hungry Season (Dec-Apr)	0	100	0	0	0
Harvest Season	70	13	0	2	14
Various	0	0	0	100	0
ANGOCHÉ					
Planting (Aug-Dec)	0	32	67	1	0
Hungry Season (Dec-Apr)	0	67	30	3	0
Harvest Season	32	7	53	3	0
Various	0	0	0	100	0
Total	10	35	28	18	7

Source: MA/MSU/UA Smallholder Survey

Angoche, while cashews are relatively more important than manioc during the two periods in Monapo, and during planting season in Angoche. Thus, cashew and manioc, with harvest periods that differ from those of other crops, appear to play a key role in allowing some smoothing of income flows over the year.

Producers' Perceptions of Changes in the Commercial System

One of the main goals of the ERP is to increase competition in rural markets. This, along with improvements in marketing infrastructure and agricultural research and extension services, will be a key determinant of the smallholder supply response in post-war Mozambique. And given the current structure of production it is the response of these millions of

¹Off-farm labor also allows some temporal income smoothing. See "A Socioeconomic Survey of Nampula Province: Determinants of Smallholder Household Income and Food Availability (forthcoming)" for more detail.

smallholders that will determine ultimately whether the country is able to realize its vast agricultural potential.

Expectations and consequent responses depend greatly on producers perceptions regarding the opportunities available to them. These perceptions are in turn strongly influenced by farmers' understanding of government policy and the acceptable roles for private and public market participants. This stresses the importance of making available to producers in the smallholder sector a constant flow of information about new marketing policies, especially regarding the free participation of traders; the understanding and objectives of minimum and fixed price policies; free movement of products and improvement of transport networks. The impact of the reforms will depend greatly on the rate at which information reaches the rural sector, and the rate at which it is assimilated by farmers.

Based on informal interviews, it is apparent that traders and producers believe the minimum prices for corn and other products represent fixed (legally mandated) prices. This perception is a residue from the period of a controlled economy, when prices were preestablished and did not reflect real market prices. In spite of substantial policy reform declarations out of Maputo, this system remains largely unchanged in rural areas. Farmers have not received correct explanations about the meaning of a policy of minimum prices as opposed to one of fixed prices, and most traders also appear to be operating according to the old rules. At this point, the main source of this continuing perception may be AGRICOM, which during the marketing campaign sends out a price table to every corner of rural Mozambique with the prices it intends to adopt that year. Many rural traders then pay, and producers expect, only these prices.

Nevertheless, reforms have shown some encouraging results. The majority of farmers interviewed (82% and 95% in Monapo and Angoche, respectively) share the opinion that the marketing of agricultural products became easier in the last five years. The same does not hold for Ribaué, where 64% of farmers answered that marketing had become more difficult during the same period. This does not come as a surprise for those who are familiar with the district, having observed the destruction of many rural stores and the lack of basic products in those still operating.

Those who stated that marketing had become easier gave as main reasons the existence of "more buyers" (51%), and "more attractive prices" (36%). Those who said that marketing had become more difficult cited several reasons, including transportation problems, the war, and delays in payment by traders.

Producers were also asked if they had increased the marketing of certain food crops during the last five years. Their answers bear some relationship to the aforementioned perceptions. In all districts, the majority said they had not increased the marketing of any food crop. Of the affirmative answers, the highest percentage came from Monapo (29%), while in Ribaué the smaller percentage (16%) answered affirmatively.

Market Entry and Prices Paid

Increased market entry is fundamental if the strategy of increasing competition at the rural level is to succeed. To what extent have new agents entered the market at this level, and what prices are they paying relative to more established traders (former monopolists)?

Table 6 shows volume of purchases and average prices paid by different economic agents. Clearly, lojistas continue to dominate purchases of agricultural products. With the exception of manioc (purchased mostly by ambulantes) and cashews (almost entirely taken by lojistas) nearly 76% of total purchases are made by lojistas.

However, such commercial domination by lojistas is not complete. Indeed, for certain products and in certain areas the marketing role of ambulantes appears high. In Ribaué, this becomes apparent in the villages of Mucú and Moçambique Novo, where ambulantes account for approximately 39% and 22% of total purchases, respectively (Table 7). In certain villages of Angoche, too, this percentage is significant, reaching 32% in the village of Namapuiza, and 37% in Namitoria. Table 6 also shows the prices paid by lojistas and ambulantes. In general, prices paid by ambulantes are higher than those paid by lojistas. One exception is peanuts, in which the opposite takes place. For other crops, differences between lojistas and ambulantes are not so large. But the overall pattern lends preliminary support to the hypothesis that ambulantes are introducing some measure of price competition to the marketing system.

Table 7 shows the percentage of total purchases (except cotton) by lojistas and ambulantes in each village. It shows that ambulantes are more important in Ribaué and Angoche than in Monapo, but that, still in those two districts, lojistas maintain a strong position in the market. Ambulantes do not account for more than 40% of marketed volume in any of the villages. To a certain extent, this pattern is to be expected, given the continuing risk of violence, the uncertainty regarding the real content of economic reform, and the nearly absolute lack of credit markets where new merchants may obtain the capital needed to carry out significant purchases.

For corn and beans, prices offered by lojistas are almost identical to the government's minimum prices (190 Mt/Kg and 270 Mt/Kg, respectively). This pattern is reflected also in the weekly bulletins of Sistema de Informação do Mercado Agrícola (SIMA), in which prices paid to producers at rural stores are very close to minimum prices.

Table 6. Volume of Purchases and Average Price Paid to Sampled Households by Type of Trader, in Monapo, Ribaué, and Angoche in the Province of Nampula

Product	Total Purchases	Type of Participant in the Market			
		Lojista		Ambulante	
		Total Purchases	Price (Mt/kg)	Total Purchases	Price (Mt/kg)
Corn	22,302	17,750	195	4,552	246
Beans	4,521	2,741	268	1,780	301
Dry Manioc	46,380	14,580	107	31,800	118
Rice	10,458	8,501	299	1,958	320
Peanuts	3,799	2,389	528	1,410	428
Cashews	44,100	43,970	353	130	425
TOTAL	131,560	89,930		41,630	

NOTES: Cotton, a very important cash crop, is not purchased in any significant quantity by the two types of buyers considered in this table.

Lojistas were the only participants in the market who were officially recognized in rural commerce before the economic reforms. Ambulantes are itinerant traders, most of whom entered the market only after the launching of economic reforms.

Source: MA/MSU/UA Smallholder Survey

In summary, there is evidence that new traders are entering the market and that, to a certain point, these traders are competing with lojistas by offering more attractive prices to producers. In the case of corn and beans, however, such competition has not forced established lojistas to pay more than minimum prices. Finally, such new agents have not brought about a change to the dominant position of lojistas. On the other hand, the role

Table 7. Percentage Distribution of Total Sales by Type of Trader and Village

	Lojistas	Ambulantes
	----- % Bought -----	
MONAPO		
NETIA	82	13
MUELEGE	48	27
MPATHA	53	26
MECUTINE	31	1
MUTARAUATANE	29	7
RIBAUE		
MOCAMBIQUE NOVO	64	32
MUCU	20	39
NATERE	36	15
TANHEIA	70	14
MAPE	22	22
ANGOICHE		
NAPRUMA	71	23
NAMAPUIZA	67	32
NAMITORIA	56	37
MACOGONE	82	14
MONARI	69	27
Total	53	22

¹ Sales do not include cotton because this product is bought almost entirely by the cotton companies.

Source: MA/MSU/UA Smallholder Survey

of AGRICOM, the enterprise which monopolized until very recently the commercialization of agricultural products, has dramatically changed, to the extent that it practically does not appear as a buyer at the producer level in the smallholder sector.

VI. CONCLUSIONS

These preliminary results shed important light on the problems faced by smallholders in Mozambique as they work to ensure their survival in the midst of continuing violence and a changing policy environment. In the context of the ERP and its emphasis on developing a market oriented system for the production and marketing of agricultural goods, a number of positive and negative factors can be identified. Favorable factors include:

1. The degree of market integration of the smallholder sector is higher than might have been expected in light of the war situation. The great majority of producers utilize the food market as one key component in their survival strategies, and majorities in Monapo and Angoche cultivate and sell traditional cash crops (cotton and cashew) in addition to food crops.
2. There is little evidence to support the hypothesis of widespread "distress sales" that leave the farmer without sufficient food or purchasing power to ensure his household's survival. Specifically, as a group, households that sell food enjoy net calorie availability levels equivalent to or higher than those that do not sell.
3. Despite continuing insecurity in rural areas, some families increased their marketing of agricultural products over the past five years. Moreover, most farmers interviewed in Monapo and Angoche declared that the marketing of their products had become easier during this time.
4. The structure of rural markets reveals some change. New traders have appeared, and they tend to pay higher prices than those offered by traditional merchants (lojistas) thus providing some degree of competition.
5. Considering that the large majority of farmers surveyed sell more foodstuffs than they buy, any changes to the market that would increase prices to the producer should have a favorable impact on production and on revenues, with a consequent improvement in the welfare of smallholders.

More troubling factors identified through this survey include the following:

1. Lojistas continue to dominate marketing of all products (with the exception of manioc) in the districts surveyed. These economic agents tend to pay approximately the minimum prices set by the government, especially in the case of beans and corn.
2. The new ambulantes perform small scale operations due to their lack of capital. To move quickly toward a more truly competitive system in rural areas, the Government of Mozambique must help create

conditions favorable to the emergence and sustained growth of this sector. Principal among these conditions may be an effective rural capital market.

3. Ambulantes generally pay prices that are more attractive to farmers. Nevertheless, these prices are still very low when compared to those in urban markets.
4. In spite of the changes in national policies in the last five years, most smallholders claim not to have increased their marketing of food crops in the past five years.
5. Purchases of foodstuffs do not appear to overcome calorie deficiencies exhibited by significant numbers of smallholders. This is due in part to a lack of purchasing power, but may be attributable more fundamentally to the failure of the product market as a supply source for most farm households. The market succeeds to some extent in moving food out of rural areas, but to date plays little role in bringing it in or even redistributing it in these areas.

VII. FURTHER RESEARCH

The survey which provided the basis for this report was an important first step in attempting to understand the smallholder sector in Mozambique. Further analyses are necessary if policy makers and others are to gain the detailed insight needed to manage effectively the transition from a highly controlled economy to one coordinated largely through market means.

On the topic of marketing addressed by this paper, two areas seem especially worthy of further analysis. The emerging "informal" marketing sector has not been the focus of any formal study. Important information was obtained in this survey regarding the new rural "ambulantes", but much more is required. The impact they are currently having on farmers and consumers, their relation to the old official structure (largely lojistas and "armazenistas" - official wholesalers who held legal monopolies under the old system), the strategies by which they operate, and the challenges they must overcome to expand their operations must all be researched in more detail. The same type of information is greatly needed for new entrants at the wholesale and retail levels. In short, a great deal more information is required regarding the structure, conduct, and performance of this emerging and growing commercial sector.

A second key issue is that of regulatory ambiguity and its impacts on market reform and the response of farmers to that reform. Both formal and informal investigations reveal that local practice often differs from formal policy declarations delivered in Maputo, and that some traders and possibly most farmers remain largely unaware of the content and practical meaning of these declarations. Clearly focused research may help guide the government in reducing the ambiguity of its policy declarations and increasing the understanding of these declarations among farmers and marketing agents.

NDEA Working Papers

1. Informing The Process of Agricultural Market Reform in Mozambique: A Progress Report.
2. A Pilot Agricultural Market Information and Analysis System in Mozambique: Concepts and Methods.
3. Inquérito ao Sector Familiar da Província de Nampula: Observações Metodológicas
- 3E. A Socio-Economic Survey of the Smallholder Sector in The Province of Nampula: Research Methods (translated from Portuguese)
4. Inquérito ao Sector Familiar da Província de Nampula: Comercialização Agrícola
- 4E. A Socio-Economic Survey in The Province of Nampula: Agricultural Marketing in the Smallholder Sector (translated from Portuguese)
5. Inquérito ao Sector Familiar da Província de Nampula: O Algodão na Economia Camponesa
- 5E. A Socio-Economic Survey in The Province of Nampula: Cotton in the Smallholder Economy (translated from Portuguese)
6. A Socio-Economic Survey In The Province of Nampula: Determinants of Smallholder Household Income and Food Availability (In Preparation)
7. A Socio-Economic Survey In The Province of Nampula: Smallholder Land Access and Utilization (In Preparation)