SOUTHERN AFRICA:
FOOD SECURITY
POLICY OPTIONS

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A RESEARCH PROPOSAL
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AGRICULTURAL MARKETING AND TRADE POLICIES TO PROMOTE FOOD SECURITY IN THE SADCC REGION: A RESEARCH PROPOSAL

K. Mlambo, D. Kingsbury, and J. Rusike

INTRODUCTION

In recent years, the nine member states of SADCC have voiced great interest in expanding intraregional trade as one strategy to increasing food security within the region. The fact that six of the nine countries are landlocked, transport costs are high, and dependence on trade with external countries (including South Africa) is viewed as precarious, has contributed to a sense of urgency which resulted in the funding of prefeasibility and feasibility studies to investigate establishing a regional food security scheme based on local grain reserves.

Historically, levels of intraregional trade have been quite low. The proportion of intra-SADCC trade in overall trade for SADCC nations is only 4-5% (Michelsen, 1986). In 1982, the value of this trade was US$295.7 million. Food and live animal trade (SITC section 0) accounted for approximately 23% of intra-SADCC trade (only US$66.7 million). In grain trade, concessional food aid shipments have increased in importance over the years for a number of SADCC countries as economic conditions have worsened, civil strife has grown, and droughts have periodically occurred.

Within the region, there is considerable variability in aid receipts. In Mozambique, dependence on food aid has recently grown to crisis proportions. Over the 1979-81 period, food aid as a percentage of total cereal availability was roughly 16% and commercial imports constituted 30% of total availability (FAO, 1986, p. 39). For 1987-88, the FAO estimates total cereal import requirements at 750,000 mt while local production is forecast at only 350,000 mt (FAO, 1987, p. 42). This situation is exacerbated by the fact that Mozambique has almost no capacity to import on a commercial basis. On the other hand, in Zimbabwe and Malawi the combination of attractive

1Department of Economics, University of Zimbabwe; Research Associate, Michigan State University; Department of Agricultural Economics, University of Zimbabwe, respectively.
producer prices and good weather have led to the build-up of maize stocks\(^2\). Recently, heavy storage costs and export sales at prices below marketing board acquisition costs have created a substantial financial burden. This coexistence of stocks and deficits within the region has resulted in an increased interest in the use of trilateral food aid transactions to simultaneously reduce the financial burden of stockholding countries and to supply imports to food deficit nations.

Currently, the dominant actors in SADCC grain trade are the grain marketing boards of the individual countries, related governmental institutions (primarily ministries of agriculture and finance), the various bilateral and multilateral development agencies that finance food aid flows, and private firms which engage in agricultural commodity and input trade.

### RESEARCH OBJECTIVES

This proposal describes research to identify agricultural marketing and trade policies which have the potential to significantly influence the availability of basic staple foods for groups most vulnerable to both transitory and chronic food shortages. It is anticipated that this will contribute to identifying marketing and trade policy strategies which have the potential to improve food security in the countries of the SADCC region.

The general objectives of the research project are to:
- describe current and historical patterns of agricultural trade within the SADCC region; between SADCC countries and South Africa; and between SADCC countries and the rest of the world, with particular emphasis on maize, wheat, and inputs such as fertilizers, seed, and agricultural machinery;
- determine the extent to which an economic basis for trade exists within the SADCC region, given current prices and transportation costs;
- evaluate alternative domestic agricultural and macroeconomic policies which impact on trade and food security;
- identify constraints to expanding trade in commodities relevant to food security (both intraregionally and internationally), focusing on transactions costs and risk; and
- analyse the potential for a number of policies and programmes to ex-

\(^2\)Malawi is currently in a maize deficit position and has requested food aid assistance from the international community for 1987-88.
pand trade in agricultural commodities, thereby improving food security in the SADCC region.

**APPROACH**

The central assumption guiding this research is that increases in intra-regional trade among the SADCC countries, if managed correctly, can benefit all parties and enhance food security. To address the general question of how to improve food security through regional trade and marketing, this question is best broken into components and dealt with at both the regional and country level.

**Regional analysis**
Due to resource constraints, it is impossible to examine food security issues in depth in all nine SADCC countries. Instead, the following general issues will be addressed at the regional level to provide a context for the country level analysis: historical trade patterns in agricultural commodities and inputs; the evolution of food aid dependency; historical patterns of production and consumption of major food crops and projected trends; the types of exchange rate regimes currently in place; the foreign exchange position of SADCC countries; and the effects of these on agricultural performance.

The regional analysis will be implemented by reviewing previously published studies and consultant reports. In addition, descriptive and statistical analysis will be undertaken related to production, consumption, trade, food aid, and exchange rates.

**Country level analysis**

**Criteria for country selection**
Detailed analysis will focus on three of the nine SADCC countries—Zimbabwe, Zambia, and Botswana. These countries were chosen for several reasons.

First, each of these countries is in a different position with regards to agricultural trade. Zimbabwe traditionally exports maize after good seasons and many experts feel that Zambia has the agroclimatic potential to eventually export grain to other nations in the region, although it has usually imported. No other SADCC country except Tanzania is judged to have much potential for significant grain exports in the near future. Botswana, on the other hand, is a persistent net importer of cereals. The country has been plagued with severe drought for the last six years.

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3See Appendix 1 for a detailed set of questions to be addressed at the SADCC/Southern Africa level.
Second, the countries are interesting to compare with regard to production. Zimbabwe and Zambia are among the nations which dominate Southern African agricultural production in terms of volume of production and consumption (Table 1). Over the 1984-86 period, Zimbabwe and Zambia accounted for 26.7 and 11.2% of total SADCC staple cereal production, respectively. Although Tanzanian production accounted for 35% of SADCC production, Tanzania has traditionally been considered more a part of the East African, rather than the Southern African market. Malawi is another important food producer. It should also be noted that South African agricultural production dwarfs that of any single SADCC country. In contrast, Botswana has contributed the least to SADCC cereal production with an aggregate average volume of only about 13,000 mt.

Third, these three countries dominate what little intraregional trade that exists in the region. Table 2 identifies 1982 source and destination values of exports and imports of food and live animals. Zimbabwe and Botswana lead in food exports (Botswana's exports of US$7.6 million consist primarily of cattle) while Zambia leads in imports.

Finally, the three countries have had very different experiences with macroeconomic policy reform. From October 1985 to May 1987, Zambia instituted a comprehensive structural adjustment programme which included a foreign exchange auction system. The auction contributed to large devaluations of the kwacha, but greater availability of capital and consumer goods in domestic markets. Agricultural marketings and exports also grew substantially.

Zimbabwe has largely resisted liberalisation while at the same time pursuing some potentially beneficial programmes for coping with its severe foreign exchange shortage, including an export incentive scheme and revolving funds for industry, mining, and agriculture.

While the foreign exchange constraint is very serious for both Zambia and Zimbabwe, Botswana is in the unique situation of having a surplus of foreign exchange reserves due to their large diamond deposits. This, plus the fact that Botswana is a member of the South African Customs Union (SACU), means that Botswana's barriers to expanded trade are quite different than those facing the other two countries. Therefore, study of Botswana should yield some interesting comparative insights.

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4However, for the first time in many years, Tanzania has an exportable surplus of maize from its bumper 1986-87 season. This is in contrast to poor 1986-87 harvests for Zimbabwe, Zambia, and Malawi. As such, there may be new possibilities for trade.
Table 1. Staple Cereal Production in Southern Africa, 1984-85 averages 1'000 mt.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Botswana</th>
<th>Swaziland</th>
<th>Lesotho</th>
<th>Angola</th>
<th>Mozambique</th>
<th>Zambia</th>
<th>Malawi</th>
<th>Zimbabwe</th>
<th>Tanzania</th>
<th>SADCC</th>
<th>S.Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>1.1</td>
<td>107.6</td>
<td>86.1</td>
<td>246.7</td>
<td>340.0</td>
<td>1069.7</td>
<td>1375.8</td>
<td>2263.0</td>
<td>2080.7</td>
<td>7570.6</td>
<td>6709.3</td>
</tr>
<tr>
<td>Sorghum</td>
<td>9.5</td>
<td>1.9</td>
<td>40.7</td>
<td>0.0</td>
<td>183.3</td>
<td>26.4</td>
<td>149.7</td>
<td>106.5</td>
<td>629.0</td>
<td>1146.9</td>
<td>503.3</td>
</tr>
<tr>
<td>Rice paddy</td>
<td>0.0</td>
<td>2.9</td>
<td>0.0</td>
<td>21.3</td>
<td>56.7</td>
<td>10.6</td>
<td>37.9</td>
<td>0.4</td>
<td>495.1</td>
<td>624.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Millet</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
<td>50.0</td>
<td>5.0</td>
<td>14.8</td>
<td>0.0</td>
<td>161.7</td>
<td>280.1</td>
<td>512.7</td>
<td>15.0</td>
</tr>
<tr>
<td>Wheat</td>
<td>1.0</td>
<td>1.3</td>
<td>15.5</td>
<td>10.0</td>
<td>5.3</td>
<td>22.4</td>
<td>1.1</td>
<td>187.2</td>
<td>76.3</td>
<td>320.3</td>
<td>2015.3</td>
</tr>
<tr>
<td>Total</td>
<td>12.8</td>
<td>113.6</td>
<td>142.3</td>
<td>328.0</td>
<td>590.3</td>
<td>1143.9</td>
<td>1564.5</td>
<td>2718.7</td>
<td>3561.2</td>
<td>10175.2</td>
<td>9245.0</td>
</tr>
</tbody>
</table>

Source: FAO Production Tapes and authors calculations

* Percent of total Southern African production
Table 2. Intra-SADCC trade in food and live animals, 1982.

<table>
<thead>
<tr>
<th>Exports from:</th>
<th>Value (mill. US$)</th>
<th>Imports to:</th>
<th>Value (mill. US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimbabwe</td>
<td>51.5</td>
<td>Zambia</td>
<td>19.8</td>
</tr>
<tr>
<td>Botswana</td>
<td>7.6</td>
<td>Mozambique</td>
<td>16.1</td>
</tr>
<tr>
<td>Malawi</td>
<td>5.2</td>
<td>Botswana</td>
<td>14.8</td>
</tr>
<tr>
<td>Angola</td>
<td>1.1</td>
<td>Tanzania</td>
<td>7.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.6</td>
<td>Zimbabwe</td>
<td>4.5</td>
</tr>
<tr>
<td>Mozambique</td>
<td>0.5</td>
<td>Angola</td>
<td>3.3</td>
</tr>
<tr>
<td>Swaziland</td>
<td>0.1</td>
<td>Malawi</td>
<td>0.4</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.1</td>
<td>Swaziland</td>
<td>0.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66.7</td>
<td>TOTAL</td>
<td>66.7</td>
</tr>
</tbody>
</table>

Source: Adapted from Chr. Michelsen Institute (1986).
aData from Lesotho unavailable.

The relevance of grains and agricultural inputs to food security
As a first step in the focus country analysis, national household budget survey data will be examined to determine which food commodities make up major portions of rural and urban household expenditures; and which of these are most important for poor households. Similarly, on the agricultural input side, farm management data from national agencies, farming systems research projects, and other available sources will be reviewed to assess the relative importance of various purchased inputs as a percent of cash expenditures for both large scale commercial and smallholder farmers. This will provide a context for assessing the significance of staple grains such as maize, wheat, and sorghum; and inputs such as fertilizer, seed and machinery.

The role of grains and inputs in trade will then be determined. Analysis will examine the approximate ratio of foreign currency to domestic currency contained in inputs, the extent to which foreign exchange is recovered through commodity exports, and incentives and disincentives created by agri-
cultural policy and macroeconomic factors such as foreign exchange management and exchange rate policies.

**Economic basis for trade**
The key question which then needs to be answered is whether an economic basis for trade in agricultural commodities and inputs exists which could contribute to food security. Recent analysis of secondary data indicates conflicting evidence as to the existence of a basis for intraregional trade. Koester (1986) compares composition and variability of agricultural production and trade and concludes that expanded trade based on comparative advantage is possible. Stackhouse’s review (1987) of the literature and analysis of trade statistics suggests that there may be a basis for trade in agricultural commodities, but there is little solid evidence that significantly expanded trade makes economic sense or is feasible—given existing production and consumption patterns, economic policies, and transport constraints. Further analysis is needed at both the intraregional and international trade levels.

One can assess the economic basis for trade by comparing import parity prices with actual market prices. For example, if the export price of Zimbabwean white maize plus transportation costs (the import parity price) to Lusaka is higher than the actual Lusaka market price, one could then hypothesize that trade potential exists which was not realized, due to prohibitively high transactions costs.

One can also examine whether domestic market prices fluctuate more

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5Transactions costs include costs which arise from immobile or "specific" assets, limited information about the general economic environment, and the need to safeguard against opportunistic behaviour by other market participants (Williamson, 1981). These costs are not purely financial and are often hard to quantify. However, by observing the difference between the actual Lusaka price and the import parity price cited as an example above, it is possible to identify an approximate lower monetary limit.

In the Southern African context, transactions costs commonly include costs arising from submitting documents required by government, complicated payments methods, and the need to convert local currencies into convertible currencies.
widely than international prices, both seasonally and between years. If this is the case, a potential may exist to even out price swings through trade and food aid, thus contributing to food security. This opportunity is conditional on imported commodities being released onto the market at appropriate times and in quantities which guarantee that prices will not fall precipitously, thus damaging local production and storage incentives.

There is anecdotal evidence that unrecorded trade between some of the SADCC states is quite substantial. Certainly the full story does not emerge from officially published statistics. Incentives for cross border parallel trade created by uncoordinated official pricing and exchange rate policies will be assessed, at least for maize and fertilizer.

**Institutional analysis of market behaviour and performance**

In most cases, applied trade research has focused exclusively on relative resource endowment and pricing issues. To understand existing trade patterns in Southern Africa and realistically assess the possibilities of expanded trade, one must also closely examine other important functions which facilitate the matching of supply and demand in agricultural markets. Major coordinating functions for agricultural commodity and input subsectors are shown in Figures 1 and 2. As can be seen, "getting prices right" is only one factor which sends signals to market participants. Inadequate coordinating mechanisms may lead to prohibitively high transactions costs which in turn stifle trade.

To examine these issues more closely, a survey of private firms engaged in agricultural commodity and input trade will be carried out in the three focus countries. These data will be analysed to assess traders’ perceptions about which coordinating mechanisms need to be altered to improve performance. Analysis will also be focused on potential activities which donor agencies could support to alleviate some of the problems arising from ineffective coordinating mechanisms.

Because parastatal marketing boards dominate agricultural marketing activity at the national level, the researchers will also analyze their role in sending market signals. As well as examining price incentives, the study will

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6In highly regulated agricultural markets where prices are controlled (such as in Zimbabwe and Zambia) and do not fluctuate greatly, it is more appropriate to look at changes in subsidy outlays aimed at maintaining a given price or a set of floor and ceiling prices.
Figure 1. Role of coordination in matching supply and demand for a community sub-sector.

**Physical functions (Supply side)**
- Inputs
- Extension
- Production
- Assembly
- Processing
- Storage
- Transportation

**Coordinating functions**
- Prices/costs
- Market information
- Grades and standards
- Government regulation
- Property rights
- Marketing sites
- Financing

**Consumption (Demand side)**
- On-farm consumption
- Marketed output
- Effective demand
- Exportable surplus
- Carryover stocks
- Concessional
- Commercial
- Import requirements

Source: Adapted from Mighell, R.L. and I.A. Jones 1963

Figure 2. Role of coordination in matching supply and demand for an input subsector.

**Physical functions (Supply side)**
- Raw materials
- Capital equipment
- Training
- Production
- Spare parts
- Transportation

**Coordinating functions**
- Prices/costs
- Market information
- Grades and standards
- Government regulation
- Property rights (incl. contracting
- Financing (incl. FOREX availability

**Consumption (Demand side)**
- Output
- Effective domestic demand
- Exportable surplus
- Demand
- Inventories
- Import requirements

Source: Adapted from Mighell, R.L. and I.A. Jones 1963
also focus on how parastatals interact with private traders and their governments.\textsuperscript{7}

The pricing and institutional analysis discussed above will be incorporated into two case studies. One will address the question of whether potential exists for expanded intraregional trade in agricultural inputs. Several input manufacturing industries with export potential will be identified in the three focus countries. This effort will combine analysis of potential supply and demand, manufacturing profitability, and information from the trader surveys to determine what potential exists and what mechanisms need to be in place to expand trade.

The second case study will examine Zimbabwean and Zambian foreign exchange management policies. This study will examine the following questions. How was foreign exchange allocated before, during, and after the Zambian experiment with the auction system; and what was its impact on the agricultural sector? Concerning Zimbabwe, how well has the Export Incentive Scheme and the various revolving funds functioned? What particular benefits has agriculture enjoyed as a result of these programmes? Pertainning to both countries, what has been the priority given to agriculture, relative to other sectors in foreign exchange allocation? Has the sector been taxed or subsidized when one considers foreign exchange earnings generated by the sector? Do these countries provide lessons that are relevant for other SADCC nations?

**TENTATIVE RESEARCH OUTPUTS**

During the course of the research, working papers will be prepared and disseminated periodically, following the procedure established in previous work carried out under the UZ/MSU Food Security Project. These will serve as a basis for meaningful dialogue between the researcher, experts on Southern African trade, decision makers involved in agricultural trade policy, and private firms. The five general topics to be covered are:

- An Overview of Agricultural Trade, Production, and Consumption in Southern Africa. Analysis will focus on trade, food aid, and production and consumption patterns to determine the extent of historical intraregional trade; and to identify areas where a potential for expanded

\textsuperscript{7}See the last two pages of Appendix I for a detailed list of some of the questions to be addressed in the trader surveys and study of the parastatals.
trade may exist. The authors will also briefly review research which has attempted to address the basis for trade issue in Southern Africa.

- **Price Analysis of the Potential for Food Security-Enhancing Trade for Three SADCC Nations.** The researchers will assess the importance of staple grains and various purchased inputs to food security. This will involve reviewing household expenditure surveys and production cost data from the three focus countries. In addition, parity prices will be calculated, the extent of policy harmonization across countries will be determined, and comparisons of international and domestic price variability will be made.

- **Case Study of the Potential for Expanded Intraregional Trade in Agricultural Inputs.** The working paper will report on analysis of one or two input subsectors where there is a potential for expanding intra-regional trade. The research will combine price and institutional analysis to assess this potential.

- **Case Study of the Zimbabwean and Zambian Experience With Foreign Exchange Management.** Analysis will focus on the effects on the agricultural sector of the Zambian experience with foreign exchange auctioning. For Zimbabwe, the authors will examine foreign exchange management policy as well as the impacts of various export promotion programmes on agricultural performance.

- **Trader Assessments of Barriers to Trade: Zimbabwe, Zambia, and Botswana.** An effort will be made to identify the risks private firms face and how they attempt to avoid or reduce these risks to tolerable levels. Analysis will centre on the coordinating mechanisms discussed earlier. In addition, the research will examine the key variables which distinguish firms that have developed effective coping strategies from those which are having trouble coping.

The final report will include a summary of material presented in working papers and further analysis of preliminary results. In addition, it will consider marketing and trade policies and specific programmes which could be implemented to enhance food security. Exchange rate and foreign exchange management policies, revolving funds, clearinghouse arrangements, and various insurance schemes are some of the mechanisms that may be examined.

**REFERENCES**


Manaungo, W.L. 1986. Recent changes in the international monetary system and the implications on developing countries. Unpublished M. Phil thesis, Economics Department, University of Zimbabwe, Harare.


## Appendix I. Research matrix for the AG. marketing and trade study.

<table>
<thead>
<tr>
<th>Component/Sub-component</th>
<th>General research question</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SADCC/SOUTHERN AFRICA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>What have historical trade patterns been in major cereals and inputs for SADCC countries?</td>
<td>Trade matrices for grains; USDA, FAO, CSO's</td>
</tr>
<tr>
<td></td>
<td>How have special trading arrangements for ag goods (countertrade, barter, etc.) evolved over time?</td>
<td>MOA, Min of Trade</td>
</tr>
<tr>
<td></td>
<td>What are the main bilateral/multilateral trade agreements</td>
<td>Secondary documents</td>
</tr>
<tr>
<td></td>
<td>What have been the effects of these agreements on intraregional trade in ag goods?</td>
<td>Interviews, secondary documents</td>
</tr>
<tr>
<td><strong>Exchange Rate Policies</strong></td>
<td>What exchange rate regimes are followed by the SADCC states?</td>
<td>IMF publications</td>
</tr>
<tr>
<td></td>
<td>How has industrial country currency realignments affected foreign exchange (FOREX) fluctuations in SADCC countries?</td>
<td>IMF data on exchange rate movements</td>
</tr>
<tr>
<td></td>
<td>How have these policies influenced ag producer incentives?</td>
<td>World Bank, IMF</td>
</tr>
<tr>
<td><strong>Foreign Exchange</strong></td>
<td>What is the foreign exchange situation in the SADCC countries?</td>
<td>Government publications</td>
</tr>
<tr>
<td></td>
<td>What are main sources of FOREX earnings?</td>
<td>World Bank, IMF, CSO's</td>
</tr>
<tr>
<td><strong>Food Aid</strong></td>
<td>How has food aid dependency evolved over time?</td>
<td>Food aid data: WFP and IFPRI</td>
</tr>
<tr>
<td></td>
<td>How have trilateral transactions evolved over time?</td>
<td>WFP and FAO, Trilateral evaluations</td>
</tr>
<tr>
<td><strong>Production and Consumption</strong></td>
<td>What are the historical food crop production/consumption patterns?</td>
<td>Production data: FAO Food Balance Sheets</td>
</tr>
<tr>
<td></td>
<td>How variable is production? How correlated are intercountry fluctuations?</td>
<td>Production database Koester</td>
</tr>
</tbody>
</table>
## Focus Countries (Zimbabwe, Zambia, Botswana)

### Food Consumption

- **Which foods are important elements of consumer expenditures in rural/urban areas?**
  - HH Budget Survey
  - CPI calculations

- **What are current/historical levels of food subsidies?**
  - Parastatal accounts, other secondary data

- **What are inflation rates for staple foods?**
  - CPI

- **What are seasonal retail market price patterns?**
  - Retail price data: CSO, EWS

- **Do domestic prices fluctuate more seasonally/between years than world prices?**
  - FAO Food Outlook, IMF exchange rate data

- **Do comparison of import parity prices with actual prices reveal unsatisfied effective demand?**
  - Retail and world prices, transport costs

### Food Prices

- **What are the historical patterns?**
  - Official producer price, SER and CPI

### Producer Prices

- **Has government price policy taxed/subsidised the ag sector/individual crops?**
  - Official producer price, SER and CPI, parity prices

### Inputs

- **What are typical production costs for major food/cash crops for commercial/small farms?**
  - Crop budgets

- **Which purchased inputs are most important for commercial/smallholder agriculture?**
  - Crop budgets

- **What has been the inflation rate?**
  - MOA?

- **What is the FOREX value of imported components?**
  - MOA sources, industry documents

- **Are official fertilizer prices harmonised across adjacent countries? Have cross-border leakages occurred?**
  - MOA, input price indices

- **What potential exists to expand input trade? Case study of Zimbabwe fertilizer, machinery, and seed?**
  - Trader survey, industry studies, interviews
What are FOREX earnings of exported crops?  
MOA, parastatal accounts, statistical yearbooks

What administrative procedures are required to export/import?  
Min of Trade, trader survey, parastatal interviews

What are FOREX allocation procedures to import ag commodities/inputs  
Min of Trade, central bank

How has devaluation affected inflation/budget deficit/the ag sector?  
CSO, GMB, MOA, CFU

How is FOREX allocated?  
Reserve Bank data and interviews

Are allocations adequate/timely/predictable for ag sector?  
Reserve Bank, trader survey, MOA

How does system affect:  
Min of Trade, MOA, trader survey, CSO, Reserve Bank, CFU
- commercial farm income/employment levels;  
- producer/trader incentives;  
- sectoral resource flows;  
- composition of sector's exports/imports?

What innovative arrangements exist to cope with the FOREX problem (revolving funds, etc.)?  
MOA, Min of Trade, donors

What are their relevance to food security?  
Secondary documents, interviews

What were procedures for obtaining FOREX before/during/after the auction system?  
Reserve Bank, CSO, Min. of Trade

Which sectors had FOREX allocations increased/decreased during the auction?  
Min of Trade, trader survey, secondary documents, interviews

How did the auction affect the availability of ag goods?  
MOA, CSO-CPI

How did the auction affect food/ag input prices?
### PARASTATAL MARKETING BOARD

**Parastatal Characteristics**
- What is the composition/volume of current operations?  
  - Parastatal accounts
- What are procedures for govt approval of imports/exports/in-country sales/purchases?  
  - Secondary documents, parastatal/trader surveys
- What are procedures for selecting private firms to participate in ag commodity import/export?  
  - Secondary documents, parastatal/trader surveys
- What are major costs/subsidy levels by commodity?  
  - Parastatal accounts, annual commodity reports
- How much do parastatals deal with other marketing boards in SADCC region? What problems occur?  
  - Parastatal interviews

**Trading Strategies**
- What are market information sources?  
  - Parastatal/trader surveys
- What are major areas of risk? What risk reduction strategies are used?  
  - Parastatal/trader surveys
- What are major barriers to more effective trading? How does the parastatal deal with them?  
  - Parastatal/trader surveys

**Trading Potential**
- What additional market information do parastatals need to improve performance?  
  - Parastatal/trader surveys
- If major barriers were removed, what new trade potential would exist?  
  - Parastatal/trader surveys

### PRIVATE TRADERS

**Firm Characteristics**
- What is the current composition/volume of operations? Who are major clientele?  
  - Trader survey, Min of Trade
- Who holds major firm ownership shares?  
  - Trader survey, Chamber of Commerce
- Who are major competitors?  
  - Trader survey, Chamber of Commerce

**Trading Strategies**
- What are market information sources?  
  - Trader surveys
- What are major risks? What risk reduction strategies are used?  
  - Trader surveys
<table>
<thead>
<tr>
<th>Trading Potential</th>
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<td>What are major barriers? How do firms deal with them?</td>
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