

# Fact Sheet • MOZAMBIQUE PROJECT POLICY ANALYSIS AND RESEARCH SUPPORT

► FOOD SECURITY COOPERATIVE AGREEMENT ◄  
between  
► U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT/ MOZAMBIQUE MISSION & MICHIGAN STATE UNIVERSITY ◄  
► TIME PERIOD: JULY 2002 - SEPTEMBER 2004<sup>1</sup> ◄

## 1. Cooperating Institutions

Directorate of Economics, Ministry of Agriculture and Rural Development, Mozambique (MADER/DE)  
Agency for International Development, Mozambique Mission (USAID/Mozambique)  
Agency for International Development, Bureau for Economic Growth, Agriculture and Trade, Office of  
Agriculture and Food Security (AID/EGAT/AFS)  
Department of Agricultural Economics, Michigan State University (MSU)

## 2. Researchers Involved

**Ministry of Agriculture and Rural Development:** HE Helder Muteia, Minister of Agriculture and Rural Development; HE João Carrilho, Vice-Minister of Agriculture and Rural Development; Carlos Mucavele, National Director, Directorate of Economics (DE); Arnaldo Ribeiro, National Director, National Sugar Institute (INA) and Head, Office of Commercial Agricultural Sector Promotion Office (GPSCA); Erasmo Muhate, National Director, Mozambique Cotton Institute (IAM); Calisto Bias, National Director, National Institute of Agronomic Research (INIA); Victorino Xavier, MADER Institutional Reform Coordinator; Higino de Marrule, Coordinator, Department of Policy Analysis (DAP); Aurelio Mate, Head, Department of Statistics (DEST); Domingos Diogo, National Coordinator for TIA 2002; Eulalia Macome, Environmental Specialist (DE); Jaquelino Anselmo Masingue, Arlindo Rodrigues Miguel, Olívia António Govene, Líria Alfredo Sambo, Benedito A. Cunguara, Maria de Lurdes Selemane, Maria Pequenino Tanque, Natércia Gertrudes Tomás de Sousa, and Zélia Machai, Policy Analysts (DAP); Acubar Paulo Batista and Luis Alexandre Osvaldo, Policy Analysts (Planning Department) .

**Market Information System Collaborators:** António Manuel Paulo, Acting National Market Information System Coordinator; Pedro Arlindo and Anabela Mabota, Senior Analysts; Innocêncio Banze and Argentina Balate (Analysts); Simão Capito Nhane, Abel Frechaut, and Francisco Monteiro (Central Team support staff); Anli Falume (Cabo Delgado Provincial MIS); Julião Augusto Nhanquila (Inhambane Provincial MIS); Mário Armando (Manica Provincial MIS); Francisco Guerra (Nampula Provincial MIS); and 50 market enumerators distributed throughout the country's 10 provinces.

**Private Sector Collaborators:** Sergio Chitará, Executive Director, Federation of Mozambican Business Associations (CTA); and Paulo Negrão, CITRUM.

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<sup>1</sup> Note: These Fact Sheets were used to record project activities from 2002-2004. Starting in 2004, on-line reporting of activities was initiated using the FS-III Web site. Obtaining a complete picture of project activities therefore requires taking into consideration both the Fact Sheets and the on-line reporting system. See <http://www.aec.msu.edu/fs2/mozambique/index.htm>.

**MSU In-Country Researchers:** Rui Benfica, Jan Low, Ellen Payongayong (Survey Training Coordinator), Tom Walker (Policy Training Coordinator), and Duncan Boughton (Country Coordinator).

**MSU Campus Backstop:** David L. Tschirley, Cynthia Donovan, Margaret Beaver, and Michael T. Weber.

### **3. Project Objective**

The principal goal of MSU assistance is to increase the Ministry of Agriculture and Rural Development's (MADER) capacity to formulate and implement facilitative agricultural sector policies, programs, and institutional reforms based on sound empirical analysis of rural household livelihood strategies. The project seeks to achieve this goal through formal and on-the-job training in the identification of priority policy issues, collection and timely analysis of relevant information, and prompt dissemination of actionable results to managers and policy makers within and beyond MADER.

### **4. Project Approach**

- The project approach to capacity building uses a collaborative model of policy dialogue, applied policy research, and in-service and formal training. This model emphasizes 1) joint definition of policy issues and research problems with host country analysts and policy makers, 2) participation of local analysts in the entire research and policy analysis process thereby generating local capacity and increasing local ownership of the results, and 3) timely dissemination of policy analysis and research findings through short internal policy memos for senior decision makers, research notes and policy syntheses, meetings and seminars, and in-depth research reports.
- To reflect the expanded capacity-building needs to implement the agricultural sector investment program (PROAGRI), MSU's proven collaborative model has been *broadened* in terms of number of participants and range of content areas, and *strengthened* through short-term formal and long-term graduate training activities. The project works in a fully integrated manner with two key departments of the Directorate of Economics:
  - the Policy Analysis Department (DAP), having a direct impact on policy formulation and dialogue; and
  - the Statistics Department (DEST) to support implementation and analysis of the national agricultural sample survey (TIA) and the national agricultural market information system (SIMA).
- Joint activities are also developed with DE's Department of Planning, as well as provincial directorates of agriculture and rural development (DPADRs). These linkages help to ensure MADER's ability to quantitatively monitor key agricultural sector variables over time, and improve the responsiveness of MADER planning to the needs of rural producers and the private sector.

### **5. Results and Outputs**

#### **5.1. Overview**

The principal focus of project efforts during the first 18 months of the new Cooperative Agreement has been to achieve tangible results in five areas:

## Mozambique Project

- field implementation, data processing, and analysis of the first national agricultural sample survey (TIA) since 1996, with pilot testing of field-based data entry and cleaning;
- recruitment and training of nine new policy analysts for the Economics Directorate of MADER, and graduate-level training for three Mozambican analysts;
- collaboration with the MADER vision working group to develop a vision and strategic objectives for the second phase of the sector-wide investment program;
- launching of new applied policy research activities with an emphasis on the poverty reduction impact of agro-industry; and
- consolidation of the national market information system (SIMA) and the pilot provincial market information system in Nampula.

Important results have been achieved in each of the focus areas, although frequent ruptures in PROAGRI operational funds and lengthy delays in salary payments to Mozambican staff throughout 2003 have undermined effectiveness and sustainability. Examples of key results include:

- A national agricultural sample survey (TIA), using a rural household economy approach, was undertaken in 2002. The results provide the first measurement of changes in income levels and composition in the rural sector since the beginning of the national agricultural development program, PROAGRI. Results have been disseminated to MADER, INE, donors, and a series of working papers is under preparation. Examples of fora where results have informed high-level debate are the FAO conference on HIV/AIDS in November 2003, the World Bank video conference on rural poverty reduction strategies in January 2004, and the USAID/IEHA Southern Africa regional workshop, also held in January 2004. The dataset is available on CD in both SPSS and Stata formats for further analysis.
- Eight out of nine new policy analysts successfully completed a rigorous formal in-service training program February-August 2003. The program included food policy (production, markets, consumption), macroeconomic and trade policy, benefit-cost analysis, price and survey data analysis, regression analysis, and personnel time and work plan management. Graduates are currently engaged in applied policy research and analysis in commercial agricultural sector development, nutrition, trade issues, rural income determinants analysis, and the 2003/4 national agricultural sample survey. One of the new graduates has been allocated to the national agricultural marketing system (SIMA), while another has been promoted to take over the position of PROAGRI environmental coordinator. In the run-up to the second phase of PROAGRI, two DAP analysts have been reallocated to the Planning Department of the Economics Directorate to assist with planning, monitoring, and evaluation.
- Throughout 2003, senior DE and MSU staff participated in the work of the MADER vision group coordinated by the GPSCA. One output of the work was the identification of strategic objectives for the next phase of PROAGRI's contribution to a market-driven agricultural sector. These objectives include market development, productivity, natural resources, and rural financial services, with gender and HIV/AIDS as cross-cutting themes. The formulation of strategic objectives paved the way for a joint MADER/private sector consulting team to develop a strategy document for the next phase of PROAGRI. Staff continued to work with this team at provincial and central level, with a focus on planning and policy. The strategy document endorsed the concept of agricultural policy stakeholder groups at provincial and national level to improve the national agricultural policy process.
- Mozambican Ph.D. candidate Rui Benfica began a study on the impact of agro-industry on poverty

reduction in Tete and northern Sofala. The study is being undertaken in collaboration with MADER's commercial sector promotion office (GPSCA), and involves policy analysts from GPSCA and DAP. Tete Province is interesting from a national point of view because of the much higher levels of agricultural input use. Benfica is also collaborating with the Directorate of Planning and Budget at the Ministry of Plan and Finance, who are responsible for the analysis of the national expenditure survey (IAF), on the preparation of an agriculture-disaggregated Social Accounting Matrix (SAM) that will enable a better understanding of the impact of policies affecting the agricultural sector on rural poverty reduction.

- The Nampula provincial market information pilot program, under the leadership of Pedro Arlindo, was completed in December 2003 with 66% of smallholders receiving market information (twice the national average). As part of the initiative, a Memorandum of Understanding was prepared between the Provincial Directorate of Agriculture and Rural Development in Nampula and PVO partners, to collaborate on preparing and disseminating a single joint information bulletin. Nampula provincial market information staff also collaborated with the national market information staff to better understand the causes and implications for urban poor of changes in urban cereal consumption patterns. Provincial market information system efforts are also evolving with DPADR ownership in Cabo Delgado, Manica, Inhambane, and Maputo.

## **5.2. Capacity Building for Policy Analysis and Research**

- Tom Walker joined the project as Policy Training Coordinator in October 2002. Dr. Walker brings 20 years of experience with the International Research Centers, most recently as head of the Social Sciences Division of the International Potato Center (CIP). He is responsible for the short-term formal in-service training program of DAP, and also works closely with the rice policy working group, and the new Mozambican Agricultural Research Institute (IIAM) on socio-economic analysis for technology development.

### **Short-term In-service and Long-term Graduate Training**

- Eight out of nine new policy analysts successfully completed a rigorous formal in-service training program February-August 2003. Following a two-week introduction that brought trainees into direct contact with senior decision makers (including the Minister, Vice Minister, and National Director for Economics), policy analysts, and advisors, the program included a series of training modules on food policy analysis (including food production, markets, and consumption), macroeconomic and trade policy, benefit-cost analysis, price and survey data analysis, regression analysis, and personnel time and work plan management. Trainers included a broad range of MSU faculty (Walker, Payongayong, Beaver, Donovan, Tschirley, Low, and Boughton) as well as several visiting speakers.
- Policy Analysis Department analysts Raúl Óscar Pitoro and Danilo Carimo Abdula began M.S.-level training at MSU. Ph.D. candidate Rui Benfica completed comprehensive examinations and returned to Mozambique to undertake thesis fieldwork on the impact of agro-industry investments on rural poverty reduction. M.S. candidate Pitoro made a visit to Mozambique as part of his master's thesis research on the potential impact of the adoption of Bt cotton.
- Two Mozambicans conducted field research for their M.S. theses on a collaborative research project between the National Cotton Institute (IAM), the Policy Analysis Department, MSU, and Wye College, UK. Anabela Mabota conducted field research on cotton farmers' awareness and use of pesticide safety practices, and has now graduated with a M.S. in Agricultural Economics from Ohio State University. Afonso Osório Ofiço is a M.S. candidate in Agricultural Economics at the University of Pretoria and a staff

member of INIA, and conducted research on contractual relations between cotton ginners and farmers.

- One recent policy analyst graduate began thesis research in Zambezia on nutritional indicators under the supervision of Jan Low.

### **Policy Analysis**

- Policy analysis staff have participated in meetings of the Biosafety Working Group set up by MADER to develop policies and procedures in the context of the Cartagena Protocol. A priority task for the working group was to develop transitional procedures for the transport and utilization of genetically modified food aid. DAP staff undertook web-based research to provide the working group with objective information on all genetic modification events that could be included in U.S. food aid maize, including approvals by third countries. In collaboration with the Southern Africa Regional Biosafety Working Group, DAP analysts have encouraged Mozambique's Biosafety Working Group to consider an interim approval process to allow research on genetically modified seed pending completion of an overall biosafety framework.
- Project staff and collaborators worked closely with the GPSCA as part of a national rice task force. Using data from the recently completed national agricultural sample survey and data compiled on rice import trends, it was concluded that the immediate introduction of import duties on rice would be premature as it would have a significant negative impact on the welfare of poor urban consumers without necessarily resolving the constraints faced by domestic rice producers. The question of import tariffs will be reviewed as part of a comprehensive study of constraints to harnessing Mozambique's rice production potential and ability to compete in domestic and regional markets.
- DAP analysts have become increasingly involved in trade issues over the past year as members, together with the GPSCA, of the external market task force coordinated by the Ministry of Industry and Commerce (MIC). Project staff also participated in bilateral negotiations between MADER and Malawi's Ministry of Agriculture and Irrigation. Issues under discussion included cross-border trade in tobacco, access to improved technology for tea production, and trans-shipment of genetically modified food aid.
- Project staff and collaborators assisted the Minister of Agriculture and Rural Development in preparing a presentation on Mozambique's experience with the recently implemented Land Law at a seminar on property rights as part of the World Summit on Sustainable Development in South Africa in 2002. Staff also assisted the Minister in preparing a keynote welcoming address at the Berlin Conference on Food Aid in 2003, as well as preparation of background material for interviews with international media.
- Project staff and collaborators provided policy analysis and advice in four key areas:
  - on WTO agricultural trade negotiations (Non-Trade Concerns);
  - investment options for grain storage;
  - investment options for agricultural mechanization; and
  - the proposed cashew marketing regulation.

### **Policy Research**

- The primary focus of policy research efforts has been understanding the determinants of rural household incomes using TIA 2002 data. Despite impressive aggregate economic growth in recent years, income poverty is still widespread and deep in rural Mozambique. Returns to education are significantly higher from the pursuit of off-farm income-generating activities than from agriculture. Farm households with extension contact had marginally higher net crop income, but they were as poor as the other households.

The insignificance of education and agricultural extension in contributing to crop and livestock income strongly suggests static technological change and underscores the ongoing need to invest in adaptive agricultural research to generate more locally relevant messages.

The TIA 2002 rural income data also attest to several sources of dynamism. Growing tobacco was significantly associated with an increase in household income, a reduction in income poverty, and an improvement in the perception of economic condition. The high altitude north-central agro-ecology also performed strongly on these criteria of rural welfare. Ownership of chickens was an important marker of household welfare. In terms of land utilization, graduating the medium farm-size group to the largest farm-size category (of 5 hectares or more) is accompanied by 3-4 times more impact in reducing the severity of poverty than moving the smallest farm size group (0-0.75 ha) to the next level (0.75-1.75 ha). Therefore, growing the commercial smallholder sector is critical at this stage of Mozambique's economic development, not only for economic growth, but also for poverty alleviation.

- Based on TIA 2002 data on demographics, including morbidity and mortality, research efforts are seeking to fill in the knowledge gaps on the effects of premature illness and death on rural households, particularly relevant in the presence of HIV/AIDS. About 4% of rural households suffered the loss of a prime age adult in the 1999-2002 period, and these households ranged from the highest to lowest income quintiles. Analysis indicates that households are affected in different ways and develop various strategies to try to deal with the loss. Factors important in determining the effects and strategies include the composition of the household and the role of the person who died. This research seeks to provide information such that public sector agents can better design interventions or programs to lessen the negative effects of adult mortality, and help affected households remain viable and move forward.
- Donovan and Dr. Calisto Bias, Director of INIA, developed a working paper to identify the key leverage points and gaps in research, extension, and institutional development that must be filled to enable agricultural sector growth and poverty reduction (see Research Report 54). Secondary data and research findings were drawn together from nutrition, poverty, extension, markets, and a range of other fields. The working paper provides access to literature that has been available only in Portuguese to assist researchers and policy makers new to Mozambique in understanding the challenges faced for agricultural growth in the Mozambican context. Many private and public sector agents in the field helped in evaluating the best opportunities for agricultural sector growth. The report was funded by Rockefeller Foundation under their Food Security Program to provide the broad background on Mozambique, and provides a baseline for the development of a country-based strategy to support technological change, policy and market development to accelerate agricultural growth and reduction in rural poverty.
- Project staff and collaborators assisted the Vice Minister of Agriculture and Rural Development with the preparation of two papers, one on the contribution of agriculture to peace in Mozambique (to be published in a book on ten years of peace in Mozambique), and the other on the potential for development of smallholder commercial agriculture as a motor for rural development and poverty reduction. The paper on smallholder commercial agriculture was presented at a meeting of the Mozambican Association of Science and Technology in early October. An extension of this paper using data from the 2002 TIA was presented at a public debate on the role of smallholder farmers as part of the MADER vision working group.
- DAP staff member Jaqueline Massingue prepared a monitoring report on private sector seed provision as part of the PROAGRI strategic action on seed. Together with data from the national agricultural sample survey TIA, it was possible to quantify the size of Mozambique's seed market for the first time. The majority of rural households seed purchases come from the informal seed sector, while the majority of formal seed sector sales go for donor-financed relief programs.

- As part of the collaboration with Wye College, UK, on comparative analysis of cotton sector policy reform efforts in Southern and Eastern Africa, project staff and collaborators began work on two research papers:
  - a seven-country study of the contribution of cotton sectors to agricultural input market development; and
  - a comparison of cotton sector policy performance in Zambia, which has a fully liberalized sector, and Mozambique, which has retained a policy framework of geographical monopolies.

The two papers will be finalized before the end of 2003.

- MSU Department of Geography faculty member Professor Bob Walker made a one-week visit to work with PROAGRI environmental specialist Ana Menezes to review progress made on environmental mitigation and monitoring actions to date, and to explore the potential future role of remote sensing.
- The Policy Analysis Department participated as a member of the steering committee for a GPSCA-sponsored study on agro-processing investment opportunities in six provinces.

#### **Policy Process**

- To address weaknesses in the national agricultural policy process identified by the 2002 PROAGRI review mission, MSU staff worked with institutional reform coordinator Vitorino Xavier and Partnership To Cut Hunger in Africa Executive Director Julie Howard to develop a proposal for an external agricultural sector stakeholder group. The proposal was presented to the Minister and subsequently to the May PROAGRI review meeting.
- DAP and MSU staff worked closely with the MADER vision working group coordinated by GPSCA, and subsequently with the PROAGRI 2 policy working group to articulate and advocate for improvements in the policy process. The PROAGRI 2 strategy document endorses the proposal for policy stakeholder groups at the national and provincial level, as well as the need for a high-level policy coordination unit within the Ministry.
- In support of MADER's institutional reform efforts, project staff and collaborators participated in a leadership retreat to look at the issues of leadership, strategy, and discipline.

### **5.3. Capacity Building for Data Collection and Analysis**

- Ellen Payongayong joined the project as Survey Specialist and Training Coordinator in September 2002. Ms. Payongayong has ten years of experience as a survey specialist with IFPRI, and joined the project because of the opportunities it provides for effective capacity building. She has worked closely with DEST's computer service group for TIA 2002 on data entry, cleaning and analysis, and on all phases of survey design and implementation for TIA 2003. A comprehensive training program is under preparation by DEST management for staff involved in future annual surveys.

#### **Improved Agricultural Survey Methods and Data Processing**

- The initial focus of project efforts under the new Cooperative Agreement has been to support the successful implementation of the first national agricultural sample survey (TIA) since 1996. Specific activities on which project staff and collaborators were involved included:

- 1) preparation of training manuals for enumerators and supervisors;
  - 2) training of trainers workshop in Maputo, followed by regional and provincial-level training for enumerators and supervisors;
  - 3) technical backstopping of field-based data entry and cleaning in two pilot provinces (Gaza and Nampula);
  - 4) participation of project-trained Policy Analysis Department analysts and/or project staff in continuous fieldwork supervision in four provinces (Gaza, Nampula, Tete, and Zambezia);
  - 5) technical support to central data entry and cleaning operations in Maputo; and
  - 6) preparation of data tabulation plans and syntax for SPSS analysis of cleaned data.
- With the successful completion of TIA 2002 and diffusion of results and data, attention has increasingly been given to capacity building of DEST staff to undertake similar exercises in the future. The implementation of TIA 2003 provided an opportunity to consolidate skills learned in the classroom.

### **Short-term In-service Training for Agricultural Survey Personnel**

- In February 2003, David Megill of the United States Bureau of Census gave a four-day course that covered the (1) review of the sampling and weighting methodology for the *Trabalho de Inquérito Agrícola 2002* (TIA 2002), (2) weighting and estimation issues for TIA 2002 analysis, (3) tabulation of sampling errors, (4) sampling and weighting procedures, and (5) sampling consideration for TIA 2003. Course attendees included DEST and DAP staff.
- In February and March 2003, Beaver conducted a two-week comprehensive course in SPSS cross-sectional data analysis, and Payongayong followed up by discussing selected topics in more detail and using a sub-sample of the data from the TIA 2002 for exercises. Course attendees included DEST and DAP staff.
- In March and April 2003, Ruben Hume of SERPRO International gave a three-week course on CSPRO programming. CSPRO was the data entry program used for the *Trabalho Inquérito Agrícola 2002* survey. The course content included the writing of complex data entry applications, as well as batch applications. Participation in this course allowed the DEST staff to prepare the data entry application for this year's TIA with minimum support from outside consultants. The course was pitched at a programmer's level. Course attendees included staff from the *Comissão de Informatica* of the *Departamento de Estatística* within the *Direcção de Economia* as well as staff from the *Comissão de Informatica* of MADER. Three programmers from the *Instituto Nacional de Estatística (INE)* were also invited to attend.
- During the period April to June 2003, emphasis was placed on pretesting questionnaires for TIA 2003 as an integral part of survey preparation. The TIA 2003 questionnaire was pretested in 13 districts in the provinces of Maputo, Inhambane, Zambezia, Tete, and Nampula and was carried out by DEST staff. Attention was focused on improved modules for cassava production and land utilization.
- In early 2004, a systematic review of capacity building progress and remaining needs will be undertaken by senior DEST and project staff, together with implications for future staff recruitment and long-term training.

### **Market Information System**

- In March 2003, Donovan gave a two-week course on time-series data analysis to new policy analyst trainees. The staff was introduced for the first time to the analysis of SIMA data files. One graduate has been allocated to the SIMA team on a full-time basis.
- The Nampula provincial market information pilot program, under the leadership of Pedro Arlindo, was

completed in December 2003 with 66% of smallholders receiving market information (twice the national average). As part of the initiative, a Memorandum of Understanding was prepared between the Provincial Directorate of Agriculture and Rural Development in Nampula and PVO partners, to collaborate on preparing and disseminating a single joint information bulletin. Nampula provincial market information staff also collaborated with the national market information staff to better understand the causes and implications for urban poor of changes in urban cereal consumption patterns.

- SIMA staff undertook and published a policy brief (*Flash*) on a post-harvest windshield survey of rural traders, and presented the information in market outlook seminars for public and private sector economic agents. SIMA staff also conducted research into the extent and reasons for the shift in urban cereal consumption patterns, consequences for low-income consumers, and the implications for policy. A policy brief on this study is in preparation.
- SIMA staff continued their collaboration with Mali's market information system through a grant provided by the Center for International Private Enterprise (CIPE), a U.S.-based business advocacy PVO ([www.cipe.org](http://www.cipe.org)). CIPE's program coordinator, Katie Kampman, visited the SIMA central and Nampula pilot market information programs, and met with farmer association representatives in Nampula. A conference to exchange experiences between Mali, Zambia, and Mozambique's market information systems will be hosted by SIMA in the first half of 2004.
- Arlindo and SIMA staff made a presentation of the cost-effectiveness of the national market information system based on results from the national agricultural sample survey (TIA 2002).

#### **5.4. Presentations**

Presentations by MADER collaborators and project staff play an important part in disseminating analytical results and promoting policy debate. Increasingly, policy analysts are working closely together with policymakers in developing informed presentations. Selected presentations by Mozambican policymakers can be downloaded at:

<http://www.aec.msu.edu/agecon/fs2/mozambique/policypres/index.htm>

- January 2004. Donovan and Tschirley presented a paper on strategies to achieve agricultural growth and poverty reduction in Mozambique at a World Bank video conference on Attacking Rural Poverty in Mozambique held simultaneously in Washington, D.C. and Maputo.
- November 2003. Marrule and Mather made a presentation to MADER's management information system (SIG) working group on the implications of TIA 2002 data on rural household death and illness for agricultural development and HIV/AIDS mitigation strategies.
- November 2003. Weber, Donovan, and Mather made a presentation to the Vice Minister of Agriculture on the implications of TIA 2002 data on rural household death and illness for agricultural development and HIV/AIDS mitigation strategies.
- November 2003. Walker and Massingue made a presentation on rural rice consumption and rice import statistics to the MADER working group on the rice subsector.
- November 2003. Donovan, Weber, and Mather made a presentation on the implications of TIA 2002 data on death and illness for agricultural development and HIV/AIDS mitigation strategies to USAID staff.

- November 2003. Mabota made a presentation on the role of agricultural marketing in rural poverty reduction at a conference in Maputo on Fair Trade organized by the NGO Oxfam.
- November 2003. Marrule and Donovan made a presentation on the implications of TIA 2002 data on death and illness at a workshop in Maputo on the HIV/AIDS mitigation strategies organized by the NGO Vetaid.
- November 2003. Walker made a presentation to the MADER's National Director of Economics and DE staff on the TIA 2002 analysis of rural income determinants.
- October 2003. Diogo made a presentation, with assistance from Payongayong, on Mozambique's experience with the use of field-based data entry for agricultural surveys at a FAO Technical Workshop and African Commission for Agricultural Statistics meeting in Yaoundé, Cameroon.
- September 2003. HE Helder Muteia, Minister of Agriculture and Rural Development, gave a keynote welcome address on the role of food aid in sustainable food security at the international conference on defining the role of food aid in Berlin.
- March 2003. Boughton made a presentation on the role of commercial smallholders in rural poverty reduction as part of a series of seminars to inform the preparation of a vision statement for the Ministry of Agriculture and Rural Development.
- January 2003. HE Helder Muteia, Minister of Agriculture and Rural Development, gave a keynote welcome address on harnessing the power of agricultural trade, markets, science, and technology for agricultural growth at the Second AGOA Forum in Mauritius.
- September 2002. HE Helder Muteia, Minister of Agriculture and Rural Development, made a presentation on Mozambique's Land Law as an example of the linkage between property rights and environmental management at the World Summit on Sustainable Development in Johannesburg.
- August 2002. Massingue made a presentation on genetically modified U.S. corn to the inter ministerial Biosafety Working Group. The presentation focused on the types of genetic events and human health approvals.

## **5.5. Publications**

### **Research Notes (*Flash*)**

*Flash* is a series of policy briefs and short papers, closely focused on issues of relevance for understanding the Mozambican food system. The papers are designed to be read in less than a half hour and to make a limited number of clear points about the issue at hand. Publications in this series can be downloaded from MSU's FSIII website:

<http://www.aec.msu.edu/agecon/fs2/mozambique/index.htm>

Policy briefs published during the current Cooperative Agreement include:

- Equipe Técnica do SIMA. 2003. *Market Information: A Low Cost Tool for Agricultural Market Development?* Volume 37E.

- Equipe Técnica do SIMA. 2003. *A Informação: Alavanca de Baixo Custo para o Desenvolvimento dos Mercados Agrários?* Volume 37P.
- Equipe Técnica do SIMA. 2003. *Produção e Comercialização de Culturas Alimentares: Que Expectativas para o Presente Ano? O Ponto da Vista dos Comerciantes Rurais de Pequena Escala no Norte e Centro de Moçambique.* Volume 36P.
- Boughton, Duncan, David Tschirley, Osorio Ofico, and Higino de Marrule. 2002. *Cotton Sector Policies and Performance in Sub-Saharan Africa: Lessons Behind the Numbers in Mozambique and Zambia.* Volume 34E.
- Benfica, Rui, David Tschirley, and Liria Sambo. 2002. *Agro-industry and Smallholder Agriculture: Institutional Arrangements and Poverty Reduction in Mozambique.* Volume 33E.
- Benfica, Rui, David Tschirley, and Liria Sambo. 2002. *Agro-industria e Agricultura Familiar: Formas de Organização das Transacções e Redução da Pobreza Rural em Moçambique.* Volume 33P.
- Equipe Técnica do SIMA. 2002. *Confirmada Baixa Produção de Cereais no Centro e Uma Melhoria no Norte do País Expectativas dos Comerciantes Rurais de Pequena Escala no Norte e Centro de Moçambique.* Volume 32P.

Policy briefs published during earlier phases of the project include:

- Equipe Técnica do SIMA. 2002. *Como Será a Comercialização Agrícola em Moçambique em 2002/03? Expectativas dos Comerciantes Rurais de Pequena Escala no Norte e Centro de Moçambique.* Volume 31P.
- Pitoro, Raúl, Higino de Marrule, Olívia Govene, Duncan Boughton, and David Tschirley. 2001. *Porque é que o “Ouro Branco” não está a Gerar Riqueza? Caminhos para Torná-lo de Novo numa Cultura Rentável.* Volume 30P.
- Tschirley, David L. 2002. *Some Characteristics of Pro-poor Growth, and Policy Implications for Mozambique.* Volume 29E.
- Equipe Técnica do SIMA. 2002. *Exportação de Milho: Ameaça contra a Segurança Alimentar Rural? Resultados de um Inquérito às Famílias Rurais do Norte de Moçambique.* Volume 28P.
- Arlindo, Pedro, Ana Paula Santos, Danilo C. Abdula, and David Tschirley. 2001. *A Economia Agrícola do Norte de Moçambique: Desenvolvimentos Recentes e Perspectivas.* Volume 27P.
- Santos, Ana Paula, António Paulo, Arlindo Miguel, Danilo C. Abdula, Pedro Arlindo, and Simão C. Nhane. 2001. *Confirmada Baixa de Produção de Cereais e Feijões no Norte de Moçambique e no Malawi: Implicações sobre as Exportações para o Malawi e os Preços ao Produtor.* Volume 26P.
- Low, Jan, Higino de Marrule, Duncan Boughton, and Raúl Pitoro. 2001. *A Regulamentação de Comercialização da Castanha de Caju: Como Torná-la um Instrumento Revitalizador do Sub-Sector Cajueiro em Moçambique?* Volume 25P.

- Santos, Ana Paula, António Paulo, Danilo C. Abdula, Pedro Arlindo, and Simão C. Nhane. 2001. *Perspectivas Preliminares dos Comerciantes Rurais Sobre a Presente Campanha de Comercialização na Zona Norte*. Volume 24P.
- Tschirley, David, and Rui Benfica. 2000. *O Papel do Mercado de Trabalho, Microempresas, e Agricultura na Redução da Pobreza Rural em Moçambique*. Volume 23P.
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Research reports present detailed study findings and document carefully the methods used and data collected. Since 1990, 55 research reports have been published on issues such as food and cash crop productivity, input market development, food market development and food aid policy, food security effects of cash cropping, rural micro enterprises and rural employment, and proxy indicators for rural incomes and nutrition. Publications in this series can be downloaded from the FSIII website:

<http://www.aec.msu.edu/agecon/fs2/mozambique/index.htm>

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### **Training Materials**

The purpose of this series is to make applied policy research and analytical tools more broadly accessible to MADER staff.

- CIMMYT - Programa de Economia. (Traduzido para português por Angela Remane). 2000. *A Formulação de Recomendações a Partir de Dados Agronómicos: Um Manual Metodológico de Avaliação Económica*. Material de Formação No. 1.
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### **Theses**

Two M.S. theses and one Ph.D. thesis are currently under preparation by Mozambican graduate students. Theses published during earlier phases of the project include:

- Santos, Ana Paula. 2000. *The Impact of Trade Liberalization on Maize Prices in Mozambique and Malawi*. M.S. thesis, Wye College.

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- Mole, Paulo Nicua. 2000. An Economic Analysis of Smallholder Cashew Development Opportunities and Linkages to Food Security in Mozambique's Northern Province of Nampula. Ph.D. dissertation, Michigan State University.
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