



**Michigan State University Food Security III
USAID Africa Bureau Associate Award
Applied Research and Outreach in support of CAADP in the
COMESA Region
Progress Report April 2009 - June 2009
August 10, 2009**



1. Introduction

The Michigan State University Food Security Group (FSG) Associate Award with Africa Bureau began in October 2007 and the current phase runs through September 30, 2009. The FSG seeks to achieve the objectives of the agreement through a two-pronged strategy as follows:

- A) Support to COMESA in the preparation of a regional CAADP compact (and selected country compacts when requested), and the identification and implementation of investments and policy reforms at regional and country level to achieve the compact targets;
- B) A joint program of applied research and policy analysis to address gaps in empirical knowledge important to the design of investment programs and/or obtaining buy-in from national governments to policy reform.

This progress report covers the period April to June 2009. The next section of the report highlights key accomplishments during this period for each component of the approved workplan.

2. Africa Bureau Associate Award Highlights April - June 2009

2.1 Preparation of draft COMESA Regional Compact framework

In order to provide more effective support to COMESA in the preparation of a regional CAADP compact, and in the preparation and implementation of selected country compacts, FSG sought approval from COMESA and Africa Bureau to fund a proportion of a FSG Regional Coordinator position through the Africa Bureau Associate Award. Mr Jan Nijhoff began his assignment as Regional Coordinator on January 5, and we are grateful to COMESA for providing office accommodation in the Investment Promotion and Private Sector Development Division of the COMESA Secretariat. Mr. Nijhoff has been working closely with COMESA's Senior Agricultural Advisor and CAADP Coordinator, Dr. Cris Muyunda, as well as with COMESA's appointed regional compact facilitator, FANRPAN, to lay the foundations for a regional CAADP compact. Mr. Nijhoff assisted FANRPAN in planning and conducting an initial stakeholder consultation during the ACTESA work plan meeting in May. Subsequently, together with Dr. Steve Haggblade, Mr. Nijhoff has prepared a draft regional compact framework (Appendix 1).

Next steps include a review and further development of the draft framework with the new COMESA CAADP Coordinator (to replace Dr Cris Muyunda following his appointment as CEO of ACTESA), FANRPAN, ASARECA/PAAP, and ACTESA. This review will take place at the re-scheduled COMESA Ministers of Agriculture meeting in early September 2009, and will be followed by a regional stakeholder consultation.

2.2 Zambia and Burundi roundtable processes underway

As regards support to key country compact processes, Mr Nijhoff has assisted COMESA as follows:

Zambia: Revitalization of the Zambia CAADP Compact design process is at an advanced stage. Ministers of Agriculture, Finance, and Trade have been consulted, and support to a second version of the compact roundtable process was about to commence as at the end of June.

Burundi: A stocktaking report has been reviewed and the need for further analytical work has been identified. A request for selected technical contributions is expected, following which additional technical support can be considered. The Government of Burundi is planning to finalize the CAADP Compact in August or September.

In addition, responding to an identified need for general advice and professional dialogue, continuous technical and management advisory support has been rendered to the CAADP Coordinator, Dr. Cris Muyunda, and his team on many aspects of the COMESA CAADP agenda. With the appointment of a new CAADP Coordinator in August 2009, the need for such support is likely to continue.

2.3 Outreach Activities

Six outreach presentations were made during the period covered by the progress report at four key venues. Donovan and Tschirley made presentations at USAID on effective use of food aid resources in April. Nijhoff made a presentation at the ACTESA work plan meeting in May. Chapoto and Jayne presented their AFR-funded analysis on managing food price instability at a stakeholder forum in Dar es Salaam. The following presentations can all be accessed at the Africa Bureau Associate Award website at: <http://aec.msu.edu/fs2/afr/index.htm>

- [Measuring the impacts of trade barriers and market interventions on maize price instability: Evidence from Eastern and Southern Africa](#). A. Chapoto and T. S. Jayne. Presentation at the Regional Consultation Workshop on: “The Use and Impact of Trade and Domestic Policy Interventions on Cereal Value Chain Stakeholders in Eastern and Southern Africa”. Dar es Salaam, Tanzania, June 3-4, 2009.
- [Guiding Investments in Sustainable Agricultural Markets in Africa \(GISAMA\)](#). Jan Nijhoff. Presentation made at ACTESA Work Plan Meeting, highlighting linkages between the GISAMA program, CAADP, and ACTESA. Livingstone, May 21-22, 2009.
- [Improving the Performance of Staple Markets to Exploit the Productive Potential of Smallholder Agriculture](#). T. S. Jayne, A. Chapoto, and B. Shiferaw. Plenary presentation at Conference on Agricultural Markets, organized by the CGIAR system and Alliance for a Green Revolution in Africa (AGRA), May 13-15, 2009. Nairobi, Kenya.

- [Can Cash Transfers Promote Food Security in the Context of Volatile Commodity Prices?](#) B. Magen and C. Donovan. Presentation for EGAT and Africa Bureau Staff, USAID Ronald Reagan Building, Washington, DC, April 23, 2009
- [Local and Regional Food Aid Procurement: Successes and Challenges as LRP Moves into its Second Generation.](#) D. Tschirley. Presentation for EGAT and Africa Bureau Staff, USAID Ronald Reagan Building, Washington, DC, April 23, 2009
- [Recent Work on Food Staple Markets and Regional Trade.](#) David Tschirley. Presented at the "Eastern Africa Regional Meeting Global Food Security Response". USAID Mission, Nairobi, March 18 – 20, 2009¹

2.4 Research Outputs

Significant progress was made on analysis and report drafting for two major research outputs that will be presented in the next quarter.

Output 7. Determinants of Smallholder Participation in Africa Food Staple Markets: the Case of Maize in Southern and Eastern Africa. A conceptual framework linking the agro-ecological resource base, smallholder resource endowments and public investments in market access has been prepared to show how these relate to the CAADP pillars and guide the empirical analysis. Tabular analysis of household maize sales was completed for Kenya, Mozambique and Zambia, and a regression model implemented for one country. The nature of the data and model required preparation of simulation analysis of standard errors. With this technical problem solved regression analysis of the two remaining countries will be completed quickly and a full report draft by early August.

Output 9: Spatial Patterns of Food Staple Production, Marketing, and Trade in South East Africa: Implications for Trade Policy and Emergency Response. This research report represents an initial effort to develop a methodology for measuring and presenting spatial information on staple food production, consumption and trade. Given that surplus food production zones often lie across international borders from the deficit markets they most economically serve, these spatial maps aim to provide a readily understandable visual presentation tool for describing these trade opportunities to regional policy makers. Following discussion with agricultural, trade and GIS specialists, we will assess the feasibility of scaling up this type of spatial mapping to other market sheds and possibly to other forms of spatial information. This first effort utilizes data from a variety of sources to generate a detailed picture of rural and urban population settlement patterns, and volumes of maize and cassava production, sales, purchases, and market flows during stylized years ("good", "normal", and "bad") in Zambia, Malawi, and Mozambique. The majority of the report was drafted during this period and alternative visual spatial presentations are being reviewed and calibrated for ease of interpretation. A complete draft report is expected by mid-August.

¹ Although this presentation was given in the previous quarterly report it is included here as the web link was not available at the time.

3. Outlook for the next quarter July – September 2009

The next quarter is the final quarter of the Africa Bureau Associate Award. During the coming quarter we anticipate completion of the following milestones:

- 1) Participation by Dr. Steve Haggblade and Mr. Jan Nijhoff at the COMESA Agricultural Technical Committee meeting and COMESA Ministers of Agriculture Meeting. During these meetings the draft regional compact framework (Appendix 1) will be reviewed by key stakeholders.
- 2) Presentation of draft research outputs 7 and 9 on smallholder market participation and spatial mapping of production and net buyers (see Appendix 3 for research abstracts).
- 3) Discussions with COMESA, ACTESA and Africa Bureau on a possible costed extension of the Associate Award to provide further analytic support to ACTESA and CAADP implementation in the COMESA region.

Appendix 1: Draft COMESA regional CAADP compact framework.

1. Goals

COMESA's Regional CAADP Compact will support and enhance CAADP implementation programs in COMESA member states through regional policies, strategies, investments, and advocacy in order to achieve the following key outcomes:

- a. Improve agricultural productivity to attain an average growth rate of 6%;
- b. Build dynamic agricultural markets within countries, and within and between regions;
- c. Integrate farmers into the market economy, improve market access, and focus on value addition and export markets based on competitive advantages;
- d. Achieve a more equitable distribution of wealth among the rural population;
- e. Become a strategic player in agricultural science and technology development to meet the needs and demands of agricultural development.

2. Core Principles of COMESA's Strategic Regional Approach

Accelerated agricultural growth in Africa will require a regional approach. Because the region's many small countries often straddle common agro-ecological zones, regional research collaboration can generate significant technology spillovers as well as efficiency gains from economies of scale. Estimates of technology spillovers in eastern Africa suggest farmer income gains of 26% to 100%, depending on the crop. Likewise, major scope exists for achieving scale economies through regionally coordinated research on problems of common interest — including plant breeding in shared crops, soil fertility management systems, biotechnology research and bio-safety regulation. Regional collaboration in controlling plant and animal diseases remains imperative, as experience with the cassava mealybug and major livestock diseases have shown.

A regional perspective will also be necessary for improving food production and food security. Across the COMESA region, inherited political borders frequently separate surplus food production zones from the deficit markets they would normally serve. These political boundaries separate food surplus northern Mozambique from deficit markets in Malawi and eastern Zambia, they divide the maize surplus highlands of southern Tanzania from deficit markets in DRC and Malawi, and they separate food surplus zones in Uganda from deficit markets in Kenya and Sudan. Political borders, in turn, translate into a welter of tariff and non-tariff barriers, which lower incentives for farmers and traders while simultaneously raising consumer food prices in cross-border deficit zones. Fluid cross-border flows, therefore, become critical for maintaining incentives for farmer investment in the surplus zones and for avoiding the extreme price volatility and consequent boom-and-bust production cycles that result when production shocks reverberate within the confines of small individual country boundaries. Regional cross-border trade can clearly contribute to improved regional food security, though this

will require infrastructural investment and policy harmonization along key regional trade corridors.

To capture these gains, the CAADP regional compact will concentrate on strategic regional investments that individual countries, acting alone, cannot achieve but which serve to accelerate individual country agricultural growth by enabling them to benefit from regional spillovers and economies of scale in technology development, trade and investment. The regional CAADP compact will provide the glue linking countries together in ways that accelerate agricultural growth and improve food and nutrition security.

Individual countries will enjoy considerable flexibility in preparing their country CAADP compacts. Clearly, individual countries will have unique needs that only thoughtful reflection at the national level can identify. In addition to country-specific priorities, many dimensions of agricultural growth will involve regional spillovers – in research, investment and trade. To benefit from resources made available through the regional CAADP program, individual country compacts will need to indicate explicitly how they contribute to and support the key regional programs.

3. Key Issues and Challenges

Stocktaking summary to be drawn from the regional and continental concept notes, and additional analytical work conducted at the regional level by ReSAKSS and others.

- a. Pillar I*
- b. Pillar II*
- c. Pillar III*
- d. Pillar IV*
- e. Cross-cutting themes*

4. Regional Priorities

COMESA has established its regional CAADP priorities through a process of extensive consultation with private and public actors throughout the region, beginning with the Kigali conference in March 2007. Through these and subsequent discussions, the CAADP regional consultations have identified priority regional investments as well as the individual country contributions required to enable these regional interactions to accelerate agricultural growth (Table 1).

Table 1. Strategic Priorities for the CAADP Regional Compact

	Regional Programs	Country buy-in required
Pillar 1. Land and Water	R1.1	C1.1
	R1.2	C1.2
Pillar 2. Trade and Infrastructure	R2.1	C2.1
	R2.2	C2.2
Pillar 3. Food security	R3.1	C3.1
	R3.2	C3.2
Pillar 4. Agricultural Technology	R4.1	C4.1
	R4.1	C4.2

In populating this matrix, regional stakeholders will prioritize programs that add value at a regional level to national-level programs. Proposed regional programs will therefore focus on:

- policy harmonization processes among member states;
- issues of intra- and extra-regional trade and the implementation of the COMESA FTA and Customs Union;
- regional investments in corridors and growth poles;
- regional coordination of research and technology development and dissemination;
- regional solutions to food insecurity among individual member states.

5. Timetable

Within each key regional activities, the COMESA stakeholders have identified priority early actions as well as long-term objectives.

6. Financing

Regional governments

Private sector

Donors

7. Monitoring and Management

Appendix 2: Updated Workplan for January – September 2009

This updated version of the approved work plan presents planned activities designed to meet the objectives of the AFR-SD Associate Award to FS III for the period January through September 2009 in light of progress made to date. The proposed revisions take account of discussions with Africa Bureau staff in January 2009, and COMESA and Africa Bureau staff in February 2009. The activities and specific outputs associated with them are outlined below using the following three categories:

- a) Support to COMESA in the preparation of a regional CAADP compact, national CAADP compacts, and analysis to provide an empirical foundation for the investments and policy reforms to be included in these regional and national compact.
- b) A joint program of applied research and policy analysis to address gaps in empirical knowledge important to the design of investment programs and/or to obtain buy-in from national governments for policy reform.
- c) Outreach, coordination, and capacity building in support of (a) and (b).

MSU-COMESA Regional Coordinator Posted at COMESA Secretariat

At the request of COMESA, MSU has posted a regional coordinator at the COMESA Secretariat in Lusaka to facilitate interaction and collaboration, and to provide direct technical support. Mr. Jan Nijhoff arrived at post in January 2009 and has been assigned to the CAADP Coordination Office within the Investment Promotion and Private Sector Development Division.

Nijhoff's terms of reference as they relate to support to the CAADP process can be summarized as follows:

1. Assist COMESA in preparing the Regional CAADP Compact:
 - a. Assist COMESA and FANRPAN in preparing a roadmap for the Regional Compact (ongoing, roadmap to be finalized early May 2009);
 - b. Assist in reviewing outputs produced by FANRPAN during the course of its contract with COMESA throughout 2009 (draft Compact document to be finalized by November 2009);
 - c. Participate in key consultations aimed at
 - i. identifying stakeholders (throughout 2009);
 - ii. stocktaking of existing programs (throughout 2009);
 - iii. identifying early action programs (throughout 2009);
 - d. Coordinate specific MSU support to the Regional CAADP Compact, such as
 - i. integration of analytical input from MSU on Pillars 2 and 3 (Output 2 of the original 07-09 Work Plan);
 - ii. contributions to the design of early actions and investments to promote regional trade in food staples and agricultural inputs (Output 3 of the original 07-09 Work Plan) (July-October)

- e. Assist in the preparation of draft Compact documentation (October-November, 2009)
 - f. Assist in finalizing the Compact (into 2010).
2. Coordinate a review of COMESA's draft Common Agricultural Policy (CAP) and assist COMESA in preparing a final version (Output 4 of the original 07-09 Work Plan) (May-August)
 3. Coordinate MSU support to key Country Compact processes (part of Output 12 of the original 07-09 Work Plan), particularly in Zambia (ongoing), and most likely in Kenya, Uganda, and Burundi, and assist COMESA in convening consultations and preparing the actual Compacts (throughout 2009, and likely into 2010).

A. Support to COMESA in Preparation of CAADP Compact

In February 2009, COMESA awarded the preparation of its regional compact to FANRPAN. An Inception Report was submitted by FANRPAN in March, and a road map for the Regional CAADP Compact process will be finalized after initial stakeholder consultations in late April or early May 2009.

FANRPAN has requested that MSU staff assist in the design of this regional CAADP compact. MSU team members will participate together with other Expert Reference Group (ERG) members and government representatives appointed by FANRPAN according to the completion schedule worked out by COMESA and FANRPAN. MSU team member Nijhoff has been specifically requested to provide technical support, working with the COMESA CAADP team and FANRPAN.

In addition, COMESA is in the process of designating teams to be responsible for developing regional Pillar documents to provide guidance to the national and regional teams in the preparation of their compacts. MSU has been informed that it will be asked to be the lead international partner to assist COMESA in the design of the regional documents for Pillars 2 and 3. MSU team members will participate together with other ERG members appointed for Pillars 2 and 3. The following outputs are anticipated:

Output 1: Revised COMESA CAADP Pillar 2 and 3 documents prepared by COMESA with input from MSU, and circulated for review. Team members: Haggblade, Jayne, Boughton, Tschirley.

Output 2: Final Pillar 2 and 3 documents integrated into overall COMESA regional CAADP compact (led by FANRPAN and to be completed according to timetable to be determined by COMESA). Team members: Jayne, Haggblade, Boughton, Tschirley.

Output 3: MSU team members contribute to design of early actions and investments to promote regional trade in food staples and agricultural inputs as identified by COMESA in the process of compact design (on-going, with the timing of specific early actions determined by COMESA). Potential examples include regional staples trade investment program design, regional cassava value chain development program design, and regional agricultural input market development. Team members: Haggblade, Tschirley, Boughton, Jayne, Kelly.

Output 4: Preparation of a draft COMESA Common Agricultural Policy (CAP). This document will harmonize existing policy documents into a common framework to serve as the basis for country-level outreach and capacity-building efforts led by COMESA. The CAP will require consultation among member states, and ratification by the COMESA the Ministers of Agriculture, and the COMESA Council of Ministers. Team members: Nijhoff, Haggblade, Jayne.

B. Applied Research and Policy Analysis

The following set of research and analysis activities seek to address crucial gaps in the empirical knowledge base that need to be filled in order to design more effective investment programs and achieve national buy-in for policy reforms that support expanded regional trade in food staples, improve the design of emergency response and social protection programs, and increase the demand for fertilizer and improved seed. The description of each analytical report presents an abstract of the study, team members, and completion date.

B.1 Regional trade in food staples

Output 5: Comparison of maize price volatility in closed (Malawi, Zambia) and open trade regimes (Mozambique, Mali, Kenya)

Instability in staple food markets remains a major problem in developing countries. Events in 2008 have compounded fears about the impacts of higher and more volatile food prices in world markets. African governments use a variety of pricing, marketing, and trade policy tools to influence and stabilize staple food market prices. However, the ad hoc and discretionary nature of these policies may introduce a great deal of uncertainty for participants in the marketing system, with unclear implications for overall market price volatility. There remains a dearth of empirical evidence in Africa to assess the overall impact of trade policy on food price predictability. This paper empirically assesses the degree of staple food price volatility in Malawi, Mozambique, Mali, Kenya, and Zambia. These case countries provide the potential to generate important policy-relevant insights. Since the introduction of the East African Commission in January 2005, Kenya has adopted a stable trade policy regime and a relatively predictable role for government operations in domestic markets. Mozambique and Mali have also pursued a fairly stable and open staple food trade and marketing policy environment. By contrast, Zambia and Malawi use a variety of *ad hoc* domestic marketing and external trade policy tools to stabilize prices. Preliminary results show that Malawi and Zambia have the highest level of food price volatility among the five countries, while Mali has the lowest. Finally, we find that Kenya's elimination of the maize import tariff from neighboring countries in the region in 2005 has stabilized prices but not affected their mean level.

Team members: Jayne, Chapoto. Expected completion: Draft report 4th quarter of calendar 2008 (4Q08); final report to be completed July 2009.

Output 6: Buffering Food Price Shocks through Cross-Border Trade: Cross-country comparisons in Eastern and Southern Africa assessing the impact of open and closed borders in moderating food price shocks and maize availability.

In an environment in which markets work well and there are no barriers to regional trade, the import parity price sets an upper limit on domestic price movements. But in practice, particularly in crisis years such as 2008, domestic prices have often exceeded import parity levels, leading domestic prices to become more volatile than world prices. Some groups (often government policy makers) attribute these failures to market failure. Others (often private traders) contend that instances of market breakdown result primarily from government policy failures. This paper reviews empirical evidence for half a dozen countries in Eastern and Southern African countries over the past 15 years in order to identify instances where cross-border trade has succeeded as well as circumstances under which trade has failed to cap domestic price rises at import parity. By comparing these differing outcomes, the paper aims to identify conditions under which cross-border trade can and cannot effectively moderate food price volatility in the region. Year 2. Team members: Haggblade, Jayne and Dorosh (IFPRI) . Expected completion: 2Q09.

Output 7: Determinants of Smallholder Participation in Africa Food Staple Markets: the Case of Maize in Southern and Eastern Africa

While there is a strong consensus about the importance of investments in efficient food staple markets, there is less certainty about the question as to how poor rural households can benefit from them. In this paper we explore that question by looking at maize market participation by smallholders in Kenya, Mozambique and Zambia with different asset endowments, in different production systems, and in good and bad production years. In particular we are concerned as to whether investments in public goods that make markets more efficient are likely to benefit the majority of households, or whether there is some minimum set of farm assets that are needed to enable rural household to benefit from those public goods in a significant way? If the former case is correct then policymakers can focus exclusively on public goods, but will still be interested in what *kinds* of public investments are of most relevance to the poor. In the latter case there may be a need for greater public-private coordination of investment strategies to enable more smallholders to achieve the necessary asset levels to benefit from public good investments.

Team members: Boughton, Jayne, Mather. Expected Completion: June 2009.

B.2 Integrating market analysis into the design of emergency response and social protection

Output 8: Can cash transfers promote food security in the context of volatile commodity prices? A review of empirical evidence

This working paper synthesizes the theoretical and empirical literature on the use of cash transfers in response to food crisis situations, with particular attention to their use in situations that are exacerbated by volatile, often inflationary, commodity prices. The paper is designed for policymakers who are wondering if cash transfers might be an appropriate instrument in the context of 2008's unstable commodity prices for both food and energy, but are unfamiliar with the literature and discussions surrounding the cash vs. food debate. After defining some key terms and presenting a brief review of the theory behind cash transfer use, the paper synthesizes evidence from studies that have evaluated past cash transfer programs. While the focus is on examples from sub-Saharan Africa (Malawi, Mozambique, Zambia, Kenya), there are also valuable lessons incorporated from other regions of the world.

Cash transfers can be a more effective tool than in-kind food aid for fighting food insecurity in conditions where markets function well. A cash transfer program combined with other forms of assistance can lead to high beneficiary satisfaction and economic growth. Systematic monitoring of events and evaluation of impacts is needed to ensure that cash transfer programs have the desired impacts and are well integrated with other forms of food security assistance. Rather than assuming a rigid single response of cash only or in-kind only, a combination of response options for different households in different environments may be the most efficient strategy. This requires both capable administrators and flexibility of program implementation.

Team members: Magen, Kelly, Donovan. Completed: January, 2009. on-line at: [Can Cash Transfers Promote Food Security in the Context of Volatile Commodity Prices? A Review of Empirical Evidence.](#)

Output 9: Spatial Patterns of Food Staple Production, Marketing, and Trade in Southern Africa: Implications for Trade Policy and Emergency Response

This research report is the first part of an effort that will eventually encompass the entire COMESA region and incorporate a broader set of spatial information. In this first effort, we bring together data from a variety of sources to generate a detailed picture of rural and urban population settlement patterns, and volumes of maize and cassava production, sales, purchases, and market flows during stylized years ("good", "normal", and "bad") in Zambia, Malawi, and Mozambique. Data for estimating production, purchases, and sales come from MSU's collaborative (with national statistical agencies) rural household panel surveys in Zambia and Mozambique, its collaborative urban survey in four cities of Zambia, LSMS data for urban and rural areas in Malawi, and LSMS data for urban

Mozambique. This is combined with highly disaggregated population settlement data from Gridded Population of the World (GPW), Global Rural-Urban Mapping Project (GRUMP), and LandScan (Oak Ridge National Laboratory's Global Population Project). Information on trade flows comes from extensive interviews with traders in the region augmented with data from FEWSNet's informal trade monitoring system and SAGIS/South Africa. This portion of the mapping takes a broader regional approach, showing inflows and outflows beyond the three focus countries

These maps form the foundation for insights in two broad areas: trade policy and the gains from trade, and choice of resource in emergency response. Given that surplus food production zones often lie across international borders from the deficit markets they most economically serve, these spatial maps will provide the basis for more formal economic modeling work in the future as well as a powerful visual presentation tool for describing these trade opportunities to regional policy makers. For analysis of emergency response options, the maps will be complemented by information about the typical geographic location of food crises and the characteristics of households in those areas, including their income levels and sources, asset levels, and the extent to which they rely on markets (or not) as a regular part of their strategy for ensuring food security. Implications will be drawn regarding the relative advantages of cash compared to in-kind food in emergency response, and regarding the risks and advantages of using locally procured food when in-kind food is desired.

Team members: Steve Haggblade, Steve Longabaugh, and David Tschirley

Expected completion: June 2009.

Output 10: The 2008/09 Food Pricing and Food Security Situation in Eastern and Southern Africa: Implications for Immediate and Longer-Run Responses.

The dramatic rise in world food prices since 2007 has commanded the world's attention. However, since July 2008, world food prices have fallen almost as rapidly as they had risen. Yet as is demonstrated in this report, domestic food price levels in many eastern and southern African markets have not declined along with world prices, and the specter of food crises have loomed again in early 2009. Against this backdrop, there is an urgent need for information about how the current food situation is unfolding in the region, the immediate policy response options, and the longer-term challenges and opportunities.

This study has three objectives: 1) to examine the impact of recent world food price changes on domestic maize and fertilizer prices in the region; 2) to assess possible changes in cropping patterns, national food production, and consumers' access to food in light of these price movements; and 3) to consider the implications for policy and program response by governments, donors, and the private sector.

Team members: Jayne, Chapoto, Minde, Donovan. Completed: November 2008.

downloadable at: [The 2008/09 Food Pricing and Food Security Situation in Eastern and Southern Africa: Implications for Immediate and Longer-Run Responses.](#)

Note: A supplemental update of this report, highlighting lessons learned from the 2008/09 crisis in southern Africa is scheduled for completion May 2009.

B.3 Fertilizer and Related Input Market Growth

Output 11: Cross-country study (for Kenya, Zambia, Malawi) of benefits, costs, and distributional effects of fertilizer promotion programs.

The purpose of this paper is to synthesize experiences with recent fertilizer promotion approaches in Malawi, Zambia, and Kenya, involving both subsidized distribution and development of private sector input markets. The aim is to contribute empirically based insights about when to invest in fertilizer promotion programs, including those with a significant subsidy element, and about how best to design and implement them. As background before synthesizing experiences across the three countries, the report draws briefly from the extensive recent debate about the case for and against fertilizer subsidies and how to make them more effective. We focus on four salient questions: (i) What are the guiding principles of a “smart” fertilizer subsidy program, and what determines its costs and benefits? (ii) What has been the experience of Malawi and Zambia with fertilizer subsidy programs—their achievements and limitations—and what lessons can be drawn for the design of future subsidy programs that would contribute most effectively to national food security and smallholder productivity? (iii) What can be learned from Kenya’s experience of rapid smallholder adoption of fertilizer without subsidies? and (iv) how do the sharply higher world food and fertilizer prices affect the justification for fertilizer subsidies in the region?

Team members: Minde, Jayne, Govereh, Crawford. Completed: November 2008. downloadable at: [Promoting Fertilizer Use in Africa: Current Issues and Empirical Evidence from Malawi, Zambia, and Kenya](#). ReSAKSS Southern Africa has subsequently jointly published this report as ReSAKSS Working Paper 13, 2008, downloadable at <http://www.resakss.org/>

Output 12: Preparation of evidence-based policy synthesis on strategies to promote fertilizer use and farm productivity; contributions to COMESA and ReSAKSS policy briefs and policy discussions. Team members: as for Output 11. Completed: October 2008. downloadable at: [Promoting Fertilizer Use in Africa: Current Issues and Empirical Evidence from Malawi, Zambia, and Kenya](#). Isaac Minde, T.S. Jayne, Eric Crawford, Joshua Ariga, and Jones Govereh. October 2008. MSU Policy Synthesis #83.

C. Outreach, Coordination and Capacity Building

For the following activities, team members will include Haggblade, Jayne, Boughton, Nijhoff, and other FSG faculty. Expected completion: continuous as appropriate given the COMESA work calendar.

- Outreach will be conducted during trips made to the region to participate in planning sessions with COMESA and other national partner organizations.
- Coordination and direct interaction with COMESA will be facilitated by the presence of the MSU coordinator at the COMESA Secretariat. Joint annual work plans will be prepared, and coordination will take place with Re-SAKSS and other CAADP support mechanisms on related analysis and outreach activities.
- Capacity building will be achieved as a joint product of the applied research and outreach activities.

Appendix 3: Research Output Abstracts and Timelines

Please see Associate Award Website for completed papers:

<http://aec.msu.edu/fs2/afr/index.htm>

Output 5: **Comparison of maize price volatility in closed (Malawi, Zambia) and open trade regimes (Mozambique, Mali, Kenya)**

Team members: Chapoto, Jayne . Expected Completion: June, 2009.

Instability in staple food markets remains a major problem in developing countries. Events in 2008 have compounded fears about the impacts of higher and more volatile food prices in world markets. African governments use a variety of pricing, marketing, and trade policy tools to influence and stabilize staple food market prices. However, the ad hoc and discretionary nature of these policies may introduce a great deal of uncertainty for participants in the marketing system, with unclear implications for overall market price volatility. There remains a dearth of empirical evidence in Africa to assess the overall impact of trade policy on food price predictability. This paper empirically assesses the degree of staple food price volatility in Malawi, Mozambique, Mali, Kenya, and Zambia. These case countries provide the potential to generate important policy-relevant insights. Since the introduction of the East African Commission in January 2005, Kenya has adopted a stable trade policy regime and a relatively predictable role for government operations in domestic markets. Mozambique and Mali have also pursued a fairly stable and open staple food trade and marketing policy environment. By contrast, Zambia and Malawi use a variety of *ad hoc* domestic marketing and external trade policy tools to stabilize prices. Preliminary results show that Malawi and Zambia have the highest level of food price volatility among the five countries, while Mali has the lowest. Finally, we find that Kenya's elimination of the maize import tariff from neighboring countries in the region in 2005 has stabilized prices but not affected their mean level.

Output 6: **Buffering Food Price Shocks through Cross-Border Trade: Cross-country comparisons in Eastern and Southern Africa assessing the impact of open and closed borders in moderating food price shocks and maize availability.**

Team members: Haggblade, Jayne and Dorosh (IFPRI). Expected Completion: June, 2009.

In theory, cross-border trade moderates domestic food price volatility. Under open borders, the import parity price sets an upper bound and export parity price sets a lower bound on domestic price movements. But in practice, particularly in crisis years such as 2008, domestic prices sometimes puncture international price bands, leading domestic prices to become more volatile than world prices. Some groups (often government policy makers) attribute these failures to market failure. Others (often private traders) contend that instances of market breakdown result primarily from government policy failures.

This paper reviews empirical evidence for half a dozen countries in Eastern and Southern African countries over the past 15 years in order to identify instances where cross-border trade has succeeded as well as circumstances under which trade has failed to cap domestic price rises at import parity. By comparing these differing outcomes, the paper aims to identify conditions under which cross-border trade can and cannot effectively moderate food price volatility in the region.

Output 7: **Determinants of Smallholder Participation in Africa Food Staple Markets: the Case of Maize in Southern and Eastern Africa**

Team members: Boughton, Jayne, Mather. Expected Completion: June 2009.

While there is a strong consensus about the importance of investments in efficient food staple markets, there is less certainty about the question as to how poor rural households can benefit from them. In this paper we explore that question by looking at maize market participation by smallholders in Kenya, Mozambique and Zambia with different asset endowments, in different production systems, and in different production years. In particular we are concerned as to whether investments in public goods that make markets more efficient are likely to benefit the majority of households, or whether there is some minimum set of farm assets that are needed to enable rural household to benefit from those public goods in a significant way? If the former case is correct then policymakers can focus exclusively on public goods, but will still be interested in what *kinds* of public investments are of most relevance to the poor. In the latter case there may be a need for greater public-private coordination of investment strategies to enable more smallholders to achieve the necessary asset levels to benefit from public good investments.

Output 8: **Can cash transfers promote food security in the context of volatile commodity prices? A review of empirical evidence**

Team members: Magen, Kelly, Donovan. **Completed:** January, 2009.

This working paper synthesizes the theoretical and empirical literature on the use of cash transfers in response to food crisis situations, with particular attention to their use in situations that are exacerbated by volatile, often inflationary, commodity prices. The paper is designed for policymakers who are wondering if cash transfers might be an appropriate instrument in the context of 2008's unstable commodity prices for both food and energy, but are unfamiliar with the literature and discussions surrounding the cash vs. food debate. After defining some key terms and presenting a brief review of the theory behind cash transfer use, the paper synthesizes evidence from studies that have evaluated past cash transfer programs. While the focus is on examples from sub-Saharan Africa (Malawi, Mozambique, Zambia, Kenya), there are also valuable lessons incorporated from other regions of the world.

Cash transfers can be a more effective tool than in-kind food aid for fighting food insecurity in conditions where markets function well. A cash transfer program combined

with other forms of assistance can lead to high beneficiary satisfaction and economic growth. Systematic monitoring of events and evaluation of impacts is needed to ensure that cash transfer programs have the desired impacts and are well integrated with other forms of food security assistance. Rather than assuming a rigid single response of cash only or in-kind only, a combination of response options for different households in different environments may be the most efficient strategy. This requires both capable administrators and flexibility of program implementation.

Output 9: **Spatial Patterns of Food Staple Production, Marketing, and Trade in Southern Africa: Implications for Trade Policy and Emergency Response**

Team members: Steve Haggblade, David Tschirley, and Steve Longabaugh
Expected completion June 2009.

This research report is the first part of an effort that will eventually encompass the entire COMESA region and incorporate a broader set of spatial information. In this first effort, we bring together data from a variety of sources to generate a detailed picture of rural and urban population settlement patterns, and volumes of maize and cassava production, sales, purchases, and market flows during stylized years ("good", "normal", and "bad") in Zambia, Malawi, and Mozambique. Data for estimating production, purchases, and sales come from MSU's collaborative (with national statistical agencies) rural household panel surveys in Zambia and Mozambique, its collaborative urban survey in four cities of Zambia, LSMS data for urban and rural areas in Malawi, and LSMS data for urban Mozambique. This is combined with highly disaggregated population settlement data from Gridded Population of the World (GPW), Global Rural-Urban Mapping Project (GRUMP), and LandScan (Oak Ridge National Laboratory's Global Population Project). Information on trade flows comes from extensive interviews with traders in the region augmented with data from FEWSNet's informal trade monitoring system and SAGIS/South Africa. This portion of the mapping takes a broader regional approach, showing inflows and outflows beyond the three focus countries

These maps form the foundation for insights in two broad areas: trade policy and the gains from trade, and choice of resource in emergency response. Given that surplus food production zones often lie across international borders from the deficit markets they most economically serve, these spatial maps will provide the basis for more formal economic modeling work in the future as well as a powerful visual presentation tool for describing these trade opportunities to regional policy makers. For analysis of emergency response options, the maps will be complemented by information about the typical geographic location of food crises and the characteristics of households in those areas, including their income levels and sources, asset levels, and the extent to which they rely on markets (or not) as a regular part of their strategy for ensuring food security. Implications will be drawn regarding the relative advantages of cash compared to in-kind food in emergency response, and regarding the risks and advantages of using locally procured food when in-kind food is desired.

Output 10: Impacts of rising food and fertilizer prices on food security.

Team members: Jayne, Chapoto, Minde and Donovan. *Completed* January 2009, downloadable at: <http://www.aec.msu.edu/fs2/papers/idwp97.pdf>

The dramatic rise in world food prices since 2007 has commanded the world's attention. However, since July 2008, world food prices have fallen almost as rapidly as they had risen. Yet as is demonstrated in this report, domestic food price levels in many eastern and southern African markets have not declined along with world prices, and the specter of food crises are once again looming in early 2009. Against this backdrop, there is an urgent need for information about how the current food situation is unfolding in the region, the immediate policy response options, and the longer-term challenges and opportunities.

This study has three objectives: 1) to examine the impact of recent world food price changes on domestic maize and fertilizer prices in the region; 2) to assess possible changes in cropping patterns, national food production, and consumers' access to food in light of these price movements; and 3) to consider the implications for policy and program response by governments, donors, and the private sector.

The report highlights seven main findings:

1. *While world and South African maize prices have plunged precipitously between August and December 2008, this decline has not been reflected at all in the eastern and southern African markets examined.* In parts of the region, most notably Malawi, maize prices are now substantially higher than the cost of importing maize from South Africa, yet imports are not occurring. While the rise in world food prices had an undeniable impact on maize prices in the region up till mid-2008, the continued rise in food prices in countries such as Malawi, Kenya, Zambia, and Mozambique during the latter half of 2008 is primarily due to local policy-related factors. The specific factors vary somewhat by country but are generally (a) policy barriers on the importation of maize; (b) late government response to information indicating the need to import maize; (c) lack of transparency and apparent high-level corruption over importation decisions in the case of Kenya; and (d) inaccurate food balance sheet estimates, including the apparent overestimation of maize production and underestimation of demand.

2. *There is some evidence of a potential food crisis emerging in Zambia and possibly Malawi in early 2009, not because of world food price levels, but because of potential physical shortages which have sent maize prices sharply higher.* In both countries, maize imports may be required to avoid rationing of government stocks. Maize retail maize grain prices in Zambian markets, as of January 2009, are in the range of US\$450 per ton; in central and southern Malawi, maize prices have surpassed \$500 per ton. Despite the gains in consumer welfare that would result from importing maize at this time, the issuing of licenses for maize importation has only been given in Zambia since December 2008 and has still not occurred in Malawi as of January 2008.

3. *Opportunities to relieve maize deficits in the region and partially stabilize prices are being hindered by barriers to regional trade.* Regional trade could be playing a larger role in delivering maize supplies to areas of the region where prices have escalated the most. Zambia, Malawi, and Tanzania have all imposed export bans or trade restrictions on maize over the past 24 months to protect domestic supplies. Another major impediment to private sector maize importation is the threat that government will import and release its stocks at prices below the cost of importation. Because such a move could impose large financial losses on traders, consultation and trust between the public and private sectors is needed to effectively avert the potential for food crises during times of national production shortfalls.

4. *Events in 2007 and 2008 are underscoring the crucial importance of timely and accurate food balance sheet estimates and market information systems.* It is becoming increasingly clear that national crop estimates in some countries are unreliable. Price stability in the region requires accurate crop forecasts so that other plans, such as export volumes, quantities to be purchased by the World Food Programme through local and regional purchase operations, and state marketing board purchases and stock releases, can be made without having unexpected effects on prices.

5. *There will almost definitely be a major drop in fertilizer use on staple food crops in the region in 2008.* Relatively low maize-fertilizer price ratios in 2008 are likely to produce several unwelcome outcomes: (a) less fertilizer used on maize and other crops in the coming cropping season; (b) lower maize yields and production, other factors constant; (c) continued upward pressure on maize prices, even in countries that so far have not experienced major price increases; and (d) a possible shift in area out of crops that require heavy fertilization for profitability and into crops that are profitable even at low or no fertilizer use (e.g., a partial shift into roots and tubers at the expense of maize in the mixed cassava/maize zones, and a shift out of fertilizer-intensive cash crops such as tobacco and tea). The impact of lower fertilizer use on maize production and marketed supplies will be most discernable in countries that make relatively intensive use of fertilizer such as Kenya and least so in countries where fertilizer use on maize is negligible, such as Mozambique.

6. *High fertilizer prices in 2008 are likely to contribute to high food prices in 2009 in the region, even if world food prices continue to decline.* On the surface, it may be expected that the rapid decline in world food prices since mid-2008 should start to put downward pressure on maize prices in eastern and southern Africa. However, to the extent that very high fertilizer prices cause a major reduction in fertilizer use and maize production in the region, the price surface in many parts of the region may remain at import parity levels throughout much of 2009, or even above import parity levels if trade policy barriers and/or trade policy uncertainty remain in place.

7. *The main implications for governments and donors are that the fundamental priorities that have always been the major drivers of agricultural productivity growth and food security remain front and center today.* While high food prices are in some quarters

being perceived as a “crisis”, in the long run, higher average food prices may bring major opportunities to attract investment in food production and marketing in the region to expand agricultural growth. However, exploiting these opportunities will require a hospitable and predictable investment climate, and moving toward this hospitable investment climate will require some governments in the region to adopt more stable, predictable and transparent behavior in food and input markets.

Output 11: **Cross-country study (for Kenya, Zambia, Malawi) of benefits, costs, and distributional effects of fertilizer promotion programs.**

Team members: Minde, Jayne, Crawford, Ariga and Govereh. *Completed* November 2008.

The purpose of this paper is to synthesize experiences with recent fertilizer promotion approaches in Malawi, Zambia, and Kenya, involving both subsidized distribution and development of private sector input markets. The aim is to contribute empirically based insights about when to invest in fertilizer promotion programs, including those with a significant subsidy element, and about how best to design and implement them. As background before synthesizing experiences across the three countries, the report draws briefly from the extensive recent debate about the case for and against fertilizer subsidies and how to make them more effective. We focus on four salient questions: (i) What are the guiding principles of a “smart” fertilizer subsidy program, and what determines its costs and benefits? (ii) What has been the experience of Malawi and Zambia with fertilizer subsidy programs—their achievements and limitations—and what lessons can be drawn for the design of future subsidy programs that would contribute most effectively to national food security and smallholder productivity? (iii) What can be learned from Kenya’s experience of rapid smallholder adoption of fertilizer without subsidies? and (iv) how do the sharply higher world food and fertilizer prices affect the justification for fertilizer subsidies in the region?