FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Between
A.I.D./Research and Development Bureau, Office of Economic and Institutional Development
A.I.D./Research and Development Bureau, Office of Nutrition
A.I.D./Africa Bureau, Office of Analysis, Research and Technical Support
A.I.D./Africa Bureau, Office of Sahel West Africa
USAID Field Missions and Host Country Institutions
Department of Agricultural Economics, Michigan State University

September 1984-November 1992

PROJECT FACT SHEETS

<table>
<thead>
<tr>
<th>Section</th>
<th>Project Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>General Fact Sheet</td>
<td>2</td>
</tr>
<tr>
<td>II.</td>
<td>Senegal Study</td>
<td>6</td>
</tr>
<tr>
<td>III.</td>
<td>Mali Study</td>
<td>9</td>
</tr>
<tr>
<td>IV.</td>
<td>Malawi Study</td>
<td>18</td>
</tr>
<tr>
<td>V.</td>
<td>Mozambique Study</td>
<td>20</td>
</tr>
<tr>
<td>VI.</td>
<td>Rwanda Study</td>
<td>23</td>
</tr>
<tr>
<td>VII.</td>
<td>Somalia Study</td>
<td>26</td>
</tr>
<tr>
<td>VIII.</td>
<td>Tanzania Study</td>
<td>29</td>
</tr>
<tr>
<td>IX.</td>
<td>Zimbabwe/Southern Africa Component</td>
<td>31</td>
</tr>
<tr>
<td>X.</td>
<td>Sahel Regional Program For Strengthening Institutional Research Capacity on Food Security in The Sahel (PRISAS)</td>
<td>40</td>
</tr>
<tr>
<td>XI.</td>
<td>Nutrition Study</td>
<td>45</td>
</tr>
<tr>
<td>XII.</td>
<td>Agricultural Technology Policy Assessment Study</td>
<td>47</td>
</tr>
</tbody>
</table>
SECTION I

GENERAL FACT SHEET - FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

1. Cooperating Institutions and Funding Sources:

A.I.D./Research and Development Bureau, Office of Economic and Institutional Development
(Contact persons: Gary Kinney and Gloria Steele, A.I.D./R&D/EID)
A.I.D./Research and Development Bureau, Office of Nutrition
A.I.D./Africa Bureau, Office of Analysis, Research and Technical Support
A.I.D./Africa Bureau, Office of Sahel West Africa
USAID Field Missions
Host Country Institutions
Department of Agricultural Economics, Michigan State University

2. MSU Faculty and Staff Involved:

Richard Bernsten, Eric Crawford, Josué Dioné, Carl Eicher, Thomas Jayne, James Oehmke,
Thomas Reardon, Allan Schmid, James Shaffer, John Staatz, James Tefft, David Tschirley, Raul
Varela, Michael T. Weber (Director), Margie Aimery, Vicky Branstetter, Nancy Fair, Janet Munn,
Elizabeth Bartilson, Margaret Beaver, Wendy Peters, Jeff Wilson and Chris Wolf.

3. Purpose of the Agreement:

The central purpose of the project is to assist African countries in formulating alternative
institutions and management processes that deal with critical short- and medium-term food security
problems and that are consistent with longer-term strategies for achieving more reliable, productive
and dynamic food systems that benefit both producers and consumers. Specifically, the project
will:

1. Develop new knowledge, operational approaches and analytical methods that enhance the
   ability of governments to identify problems, analyze program alternatives, and formulate
   strategies that achieve food security goals; and

2. Develop new understanding of how to upgrade institutional and professional capabilities for
   improving national food systems.

4. Applied Research Themes:

A. Primary Focus:
   The interaction of technological change, institutional reforms and macro-level policy in
   overcoming food production and marketing constraints.

B. Secondary Focus:
   1. Managing foreign exchange, food imports and food aid to achieve food security goals.
2. Planning and prioritizing policy research and analytical requirements to achieve food security goals.

3. Data and analysis needs for food security planning.

5. **Operationalizing the Applied Research: Countries/Topics Covered**

   Senegal  
   Mali  
   Malawi  
   Mozambique  
   Rwanda  
   Somalia  
   Tanzania  
   Zimbabwe/Southern Africa Regional  
   Sahel Regional  
   Nutrition - Buy In  
   Agriculture Technology Assessment

6A. **Outputs to Date: Working Papers and Other Materials With a Cross-Country Focus**


"Food Security Staff Numbers Training Materials - Food Security Research Design and Data Analysis." Materials prepared for UZ/MSU/SADCC short course 1-29-90. MSU.


6B: Outputs to Date: Seminars/Conferences


Food Security and Productivity Unit, A.I.D. Africa Bureau, 'Premier Food Security and Productivity Collaborators Round Table', Oct. 22-23, talk on Agricultural Productivity Project of FS2.
SECTION II

FACT SHEET - SENEGAL STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University
(In country time period: July 1986-July 1988)

1. Cooperating Institutions:

   USAID/Dakar
   Institut Sénégalais de Recherches Agricoles (ISRA), Bureau d'Analyses Macro-Economiques (BAME), Dakar
   Department of Agricultural Economics, MSU

2. Researchers Involved:

   Senegalese Research Coordinator: Léopold Sarr (ISRA)
   MSU In-Country Researcher: Stephan Goetz
   Senegalese Researchers: Bocar Diagana, Abdoulaye Fall
   MSU Campus Backstop: Eric Crawford, John Holtzman, Jim Shaffer, John Staatz, Margaret Beaver
   USAID/Dakar Backstop: Moribajan Keita.

3. Objective of the Research:

   Analyze the response of cereals producers and market participants (private traders, parastatal development agencies, farmer organizations) to privatization of input and output marketing.

4. Research Approach:

   Surveys of markets, private traders, farmers, and farmer organizations. Area covered = south-east Senegal.
   Interviews of policy makers, traders, and management staff in farmer organizations and parastatal agencies.

5A. Outputs to Date: Working Papers


5B. Outputs to Date: Thesis and related papers.


**5C. Outputs to Date: Seminars/Conferences.**

1. In Senegal, the food security team has made presentations at:


   Paper presented was: B. Diagana, A. Fall, and S. Goetz, "Observations Préliminaires sur le Système Agro-Alimentaire dans les Régions Orientales du Sénégal."


2. In the U.S., presentations on the research have been made to:


   Department of Agricultural Economics, MSU.

   Rockefeller Foundation
FACT SHEET - MALI STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University
(In-country time period: June 1985 - November 30, 1992)

1. Cooperating Institutions:

USAID/Bamako
Technical Secretariat of the Food Sector Strategy Commission (ST/CESA)
Institute of Rural Economics/Farming Systems Division (IER/DRSPR)
Office des Produits Agricoles du Mali (OPAM)
Department of Agricultural Economics, MSU

2. Researchers Involved:

ST/CESA: Moussa Kalifa Traoré, Daouda Keita, Oumou Mariko, Kadian Doumbia, and Kassim Koné
IER/DRSPR: Moussa Diarra, Josué Sagoba, Youssef Cissé, Samba Traoré
OPAM: Salifou Diarra, Ely Diarra, Mamadou Fané, Aguissa Maiga, Francis Keita, Kader Sonoucoue, Abdramane Traoré, Pierre Traoré
MSU In-Country Researchers: Victoire D'Agostino, Bruno Henry de Frahan, Niama Nango Dembélé, Josué Dioné, Eleni Gabre-Madhin, Mona Mehta, Phil Steffèn, James Tafft
MSU Campus Backstop: John Staatz, Eric Crawford, A. Allan Schmid, James Shaffer and Michael Weber

3. Objectives of the Research:

ST/CESA - Analyze the effects of reforms in the markets for millet, maize and sorghum on the willingness and capacity of participants to invest in improving the food system. Also, provide applied research assistance to the Malian government and USAID/Mali to strengthen the empirical foundations of ongoing cereal market reforms and help establish a cereals market information system and analytical unit based at OPAM.

IER/DRSPR - Analyze factors affecting the payoff to agricultural research in Mali, especially to analyze the costs and benefits of expanding farming systems research into the Fifth Region of Mali.

4. Research Approach:

The data generated by the MSU-CESA Food Security Project covered a large set of market conduct and performance indicators, including: (a) monthly coarse grain transactions (sales, purchases, barters and gifts) for a sample of 190 farmers distributed among 16 villages in 4 rainfall subzones in the south of the country (CMDT and OHV zones); as well as a sample of 120 farm households in Northeastern Mali (the Gao region) (b) weekly transaction data for the main rural market of each of the 4 southern subzones as well as keep markets in the Northeast; and (c) monthly transaction data for a sample of grain wholesalers in major cities (Bamako, Mopti, Sikasso and Koutiala, Tomboctoires, Gao, and smaller towns in the grain-deficit Northeast).
Several single-visit surveys were carried out to gather information on farmers' strategies for ensuring their own food security (available resources, activities and means to meet food needs, major constraints that jeopardize their food situation, major policy and technological factors that enhance their food security, etc.); traders' resources, constraints, and strategic behavior, especially in response to the risk and uncertainty that traders face from unexpected policy changes and supply variability; and the interactive effects of different macro-level policies (fiscal, credit, pricing, extension, etc.), on both traders' and farmers' strategies with respect to their production and marketing activities.

Interviews were also carried out with policy makers and management staff in parastatal agencies.

The surveys conducted with IER/DRSPR began with a rapid farm-level reconnaissance in the Fifth Region to develop an inventory of priority production problems (research areas) for major production systems, constraints to production (marketing, availability of inputs, etc.), and possible solutions. Then the project compiled farm-level data and budgets from a combination of secondary sources and conducted detailed interviews with a sample of farmers drawn from rapid reconnaissance villages. These included information on farm-level investments needed to adopt technologies that would be likely to be available and the net returns resulting from the adopted technologies. Analysis focused on identifying and quantifying the complementary affects of investments in technology generation, extension, market, improvements, and policy reforms.

The Policy Reform and Monitoring (PRAM) component is part of Phase II of the Mali Food Security Project, which began in July, 1987. Field activities under the PRAM ran through August, 1990. Three types of activities were carried out:

a. Technical Assistance to USAID/Mali in its participation in the PRMC. From July, 1987 through July, 1988, Phil Steffen, an MSU researcher, served as USAID/Bamako's full-time representative to the PRMC technical committee. This committee develops proposals that are submitted to the Malian government for actions to reinforce the process of cereal market liberalization. In July 1988, Steffen stepped down from the technical committee to devote full time to his FSA/CA research. The project staff continued to consult frequently with USAID staff members working on the technical committee.

b. Applied research aimed at providing the Malian government and USAID/Mali with a stronger empirical foundation on which to base the ongoing cereal market reforms. This research was undertaken jointly by MSU and the Malian Food Strategy Commission (CESA). MSU researchers in Mali who have been involved in this research include Phil Steffen, Nango Dembélé, Mona Mehta, and Victoire D'Agostino. In addition, the PRAM has provided funding to Shelly Sundberg, a Ph.D. candidate from Stanford, who worked with the CESA/MSU team to carry out consumption and nutrition studies of the farmer sample in the OHV zone.

c. Technical assistance to the Malian government to help it establish a cereals market information system (SIM) and analytic unit based at the cereal marketing board, OPAM. Nango Dembélé had the major responsibility for providing this technical assistance. Eleni Gabre-Madhin, an MSU graduate student, also worked with the SIM in 1990 on a study of Malian grain exports. Her research was jointly funded by MSU and IFPRI. The technical assistance allowed the Malian SIM to begin regular weekly market reporting on over 50 cereals markets throughout Mali beginning in late 1988. Weekly reports are broadcast on national radio and television, fortnightly reports are
published in the official newspaper, L’Essor, and the SIM also issues weekly and monthly reports to various government and donor agencies and to PVOs. In addition, the SIM publishes a semi-annual (previously a quarterly) bulletin containing more detailed analysis of cereal market conditions throughout Mali. The Malian SIM is now considered by most observers to be most highly developed cereal market information system in the Sahel.

5A. Outputs to Date Working Papers (Papers grouped by component)

1. ST/CESA Component- Cereals Market Reform and Food Security:


2. IER/DRSPR Component- Farming Systems Research in the 5th Region:


3. OPAM/SIM Component- Market Information and Food Security


4. IER/DPAER - Maize Subsector Study


OPAM/SIM- Market Bulletins:

Applied research assistance provided by the project to the Malian Cereals Market Information System (SIM) has helped the SIM publish regular weekly, monthly, and semi-annual market reports. The semi-annual (formerly quarterly) Bulletin d'Information sur le Marché Céréalier en République du Mali is widely read in donor, government, and PVO offices in Mali.
5C. Outputs to Date: Thesis and Dissertations

1. ST/CESA Component- Cereals Market Reform and Food Security:


2. IER/DRSPR Component- Farming Systems Research in the 5th Region:


5D. Outputs to Date: Seminars/Conferences

Within Mali

In Mali, the food security team has presented numerous seminars to the National Food Sector Strategy Commission (CESA); the technical committee of the Cereals Market Restructuring Project (PRMC); USAID/Bamako; and the Institut d'Economie Rurale (IER), the national agricultural research agency. These seminars were part of ongoing regular interactions between the food security research team and the staff of these organizations.

In addition, project staff provided briefings to Malian participants in the "Debat National sur le PRMC" (June 1987) and made presentations at the following conferences within Mali:

i. National Cereals Policy Conference (Bamako, June 1988)
ii. National Market information System Workshop (Bamako, December 1988)
iii. National SIM (Système d'Information sur le Marché) Seminar (Bamako, December 1989)
iv. National Rice Subsector Conference (Ségou, February, 1990)

Other African Countries

Nango Dembélé made a presentation to National Seminar on Price Collection and Usage in Mauritania (February, 1990)

Within the U.S.

Seminars and presentations have been made to:
i. All-University Faculty Seminar, MSU (February 1986)
ii. Economic Development Workshop, Dept. of Economics, MSU (May 1986 and April, 1988)
iii. Dept. of Agricultural Economics, Cornell University (May 1986)
iv. A.I.D./W, Bureau of Science and Technology (February 1987)
v. Briefing of Niles Brady, Director of Bureau of Science and Technology (February 1987)
vi. University of Michigan, Institute of Public Policy Studies, Annual Policy Conference (March 1987)
vii. A.I.D./W, Africa Bureau, Seminar on Cereals Policy in the Sahel (October 1987)
ix. A.I.D./W, Bureau of Science and Technology (March 1988)
x. Thoman Fellows Group, MSU (September 1988)
x. A.I.D./W, Beyond Mindelo I Seminar (October 1988)
xii. A.I.D./W, Beyond Mindelo II Seminar (September 1989)
xiii. A.I.D./W, Office of Food for Peace, Workshop on Targeted Food Subsidies in Africa (November 1989)

**International Conferences:**

Presentations were made to the following international conferences:

i. CILSS/Club du Sahel Seminar on Regional Trade in West Africa (Lomé, November 1989)
ii. CILSS/Club du Sahel Seminar on Cereals Market Information Systems in the Sahel (Bamako, April 1990)
iii. CIRAD, CILSS/Club du Sahel, USAID conference on "The Future of Sahelian Agriculture" (Montpellier, France, September 1990)

**Other Project Outputs in Mali were:**

i. Participation in a special program on Malian television on the Cereals Market Restructuring Project (September, 1986).
ii. Consultant to the Malian producer of radio and television programs on the PRMC.
iii. Provision of monthly rural market data to CILSS food security monitoring project in Ouagadougou.
iv. Briefings of numerous USAID and other donor-sponsored consultants.
v. Data and analysis provided to IFAD for the design of seasonal credit program for farmers.
SECTION IV

FACT SHEET - MALAWI STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University

(In-country time period: November 1989 - November 1991)

1. Cooperating Institutions:

Center For Social Research (CSR) University of Malawi, Zomba
Department of Agricultural Economics and Extension, University of Zimbabwe
USAID/Southern Africa Regional Program, Harare
Department of Agricultural Economics, MSU

2. Researchers Involved:

Louis A. H. Msukwa, Director of CSR and Study Coordinator
Dr. Wycliffe Chilowa, CSR and Drs. Benson Kandoole, Ben Kaluwa and E. Silumba, Economics Department of Chancellor College
Naomi Ngwira, CSR staff member and Ph.D. candidate, MSU Agricultural Economics Department

3. Objective of the Research:

Assess the effect of the 1987 General Purposes Act that legalizes private traders on household income and food security. Also to assess the response of private traders to the new policy, and to better understand constraints facing private traders.

4. Research Approach:

Primary data will be collected on household and trader level behavior in 3 regions of Malawi, with emphasis on participants operating in both deficit and surplus producing areas within each region.

Price data will be systematically collected in a sample of rural markets in these study regions, and analyzed along with price data from the NSO on urban market performance.

Study will cover the period March 1990 to May 1991.

5A. Outputs to Date: Working Papers


5B. Outputs to Date: Thesis and Related Papers

5C. Outputs to Date: Seminars/Conferences

Results will be presented at selected policy workshops to be organized by the CSR.

Selected results to be submitted to the Food Security and Nutrition Bulletin, of the Office of the President and Cabinet.

Selected results to be reported in the Annual UZ/MSU/SADCC workshop.
SECTION V

FACT SHEET - MOZAMBIQUE STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University

(In-country time period: October 1990 - November 1992)

1. Cooperating Institutions:

Directorate for Rural Economics, Ministry of Agriculture, Mozambique
USAID/Maputo
Department of Agricultural Economics, MSU

2. Researchers Involved:

Julio Massinga, Ministry of Agriculture
Ragendra de Sousa, Ministry of Agriculture
MSU In-country research: Raul Jorge Varela
MSU Campus Backstop: David Tscherley and Michael Weber

3. Objective of the Research:

Analyze the effect of recent market adjustments on incentives facing traders and producers. Also to assist the Government of Mozambique in establishing a pilot market information system within the Directorate for Rural Economics, Ministry of Agriculture.

4. Research Approach:

Conduct rapid market appraisals in selected markets to understand effects of recent market adjustments. Later to survey traders and farmers in these market areas on effects of changes in rules and government policies. Establish a pilot market information system in 4 urban markets and 3 rural markets (in Nampula District).

5A. Outputs to Date: Working Papers

Ministerio Do Comercio, Departamento De Seguranca Alimentar Republic Popular De Mocambique "Situacao Actual Dr. Producao, Consume E Avaliacao Nutricional Na Cidade De Nampula - Pesquia" Maputo, Agosto De 1990. (The UZ/MAU project contributed computer software and training to facilitate the production of this report.


5B. Outputs to Date: Thesis and Related Papers

"Household Expenditure and Consumption Growth Linkages in Rural Nampula Province; Mozambique."

5C. Outputs to Date: Journal Articles


5D. Outputs to Date: Seminars/Conferences

- Weber presented a seminar on food security in Southern Africa to a group of 30 Mozambiquan analysts and policy makers on October 28, 1989 at Hotel Rovuma.

- 3 analysts from Mozambique participated in the Food Security Research Design and Data Analysis Short Course conducted at MSU during the month of January, 1990.


- The In-country research team presented a seminar on results of the Nampula Smallholder Survey in Nampula City in December, 1991.

- Weber presented a seminar on rural and urban research findings of the project at USAID/Mopeto Cooperator's Workshop, January, 1992.


- Tschirley presented a seminar to donors and GOM officials on reform of the food aid distribution system in April, 1992.

- Various seminars to USAID/Maputo officials by Weber, Tschirley, and In-country team.
1. **Cooperating Institutions:**

OAR/Rwanda (USAID)
Ministry of Agriculture, Agricultural Survey and Statistical Service "SESA,"
Department of Agricultural Economics, MSU

2. **Researchers Involved:**

SESA: Serge Rwamasirabo, Jean Chrysostome Mukezangango, Jean Leonard Ngirumwami, Theobald Kampayana, and Yvan Dejaegher
MSU In-Country Researcher: Scott Loveridge
MSU Campus Backstop: Mike Weber and Jim Shaffer

3. **Objectives of the Research:**

The two major objectives of this research are: 1) to develop information and analytical procedures which will contribute to understanding of important policy questions related to the interaction of production, marketing, pricing and food security issues for selected storable commodities in Rwanda; 2) to contribute to the development of a framework and analytical capacity for future food security analysis in Rwanda, and the specification of anticipated data requirements.

4. **Research Approach:**

Study components include national markets, farmers, merchants, and selected public programs and policies. For each component a series of systematic surveys will obtain either existing secondary information or new primary data from a sample of participants.

A majority of the surveys are focused on relatively limited samples and maximize the involvement of analysts in understanding how the selected food system components operate and relate to each other. Four focused surveys will be added to SESA's on-going national sample survey.

5A. **Outputs to Date: Working Papers/Journal Articles**


Loveridge, Scott, and Michael T. Weber, "Relationships Between Food Production, Marketing, and Farmer Perceptions in Five Prefectures of Rwanda."


Loveridge, Scott, et. al., "Results of a Survey on Farm Level Sorghum Marketings". English draft version of a working paper in French, presented in Kigali, April 5, 1988.


Loveridge, Scott, with Krista C. Dessert, "Relationships Between Bean Marketings and Bean Production Techniques: A Study of Fifteen Farms in the Prefecture of Kigali."


Mukezangango, J. Chrysostome, "Enquêtes sur les Prix: Description des Séries des Prix Déjà Existants."


SESA/MSU Research Team, "Production, Markets, Prices and Food Security Relationships Among Selected Commodities in Rwanda: A Research Program Overview."

SESA/MSU Research Team, "Rélations Entre la Production, la Commercialisation, les Prix et la Sécurité Alimentaire de Certains Produits Vivriers Stockables au Rwanda."

**5B. Outputs to Date: Thesis and related papers.**


5C. Seminars/Conferences:

1. In Rwanda, the food security team has made presentations at:

   Briefing sessions for EEC Marketing Study researchers.

   Briefing sessions for USAID/Kigali officials on various occasions.

   Presentations and Collaboration with Ministry of Plan and Finance Project on Enterprise and Employment Policy in Rwanda.


   Conference on Improving the Understanding of Production and Marketing of Selected Food Products in Rwanda, organized by Ministry of Agriculture for representatives of various Rwandan agencies and donor officials, May 27, 1987.


2. In the U.S., presentations on the research have been made to:

   USAID officials in Africa Bureau, S & T, and PPC staff on 3 different occasions.

   University of Minnesota - Rwanda Bean Storage Project Researchers.

   M.S.U. students and faculty on 3 separate occasions in workshops and lectures.
SECTION VII

FACT SHEET - SOMALIA STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University
(In-country time period: June - 1986 - December 1988)

1. Cooperating Institutions:
   
   USAID/Mogadishu
   Ministry of Agriculture, Planning Division, Mogadishu
   Department of Agricultural Economics, MSU

2. Researchers Involved:

   Ministry of Agriculture, Planning Division: Abukar Osman Abikar (Director), National Extension Service: Hussein Iman.
   Somali National University, Faculty of Agriculture: Mohamud Ibrahim Asser, Mohammed Osman Farah.
   MSU In-Country Researcher: Yassin Wehelie
   MSU Campus Backstop: John S. Holtzman and Michael T. Weber

3. Objectives of the Research:

   Analysis of the effects of selected market, institutional, and technological variables on the investment and production decisions of maize and sesame producers in the lower and middle Shebelle regions and the implications of those decisions for food security in Somalia.

4. Research Approach:

   Study components include regional markets (in Southern Somalia), farmers, traders, and selected public programs and policies. Formal surveys are being implemented to gather data on agricultural product and input prices, and producer and trader resources, behavior and constraints. Informal surveys are conducted with selected policy makers, donor agencies and development project managers.

   Assemble, analyze, and examine the consistency of available secondary data on national/regional/district production of maize, agricultural commodity prices, imports, food aid, ADC (Agricultural Development Corporation) operations, and technology adoption and impacts.

5A. Outputs to Date: Working Papers


5B. Thesis and related papers


5C. Seminars/Conferences

1. In Somalia, the Food Security Team has made presentations at:

   Briefing of Ministry of Agriculture senior officials on several occasions.

   Briefing sessions for USAID officials on various occasions.

   "Food Security Planning and Policy Workshop," Ministry of Agriculture, May 31, 1987. Workshop participants included representatives of Ministries of Agriculture, National Planning and Finance, the National Extension Service, the Center for Agricultural Research in Somalia (CARS), FAO, World Food Programme, Finnish Aid, UNCDF (Capital Development Fund), World Bank, and USAID.


Briefings of other researchers in Somalia, including University of Wisconsin, Land Tenure Center, SARSA Cooperative Agreement, and Bay Region Agricultural Development Project.

2. In the U.S., presentations on the research have been made to:

USAID officials in the Africa Bureau, S & T, and PPC on three different occasions.

Rockefeller Foundation.

MSU students and faculty on two separate occasions in workshops and lectures.
1. Cooperating Institutions:

Department of Economics, University of Dar es Salaam
Department of Agricultural Economics and Extension, University of Zimbabwe
USAID/Southern Africa Regional Program, Harare
Department of Agricultural Economics, MSU

2. Researchers Involved:

Drs. Haidari Amani and Wilbold Maro, Department of Economics, University of Dar es Salaam
MSU Campus Backstop: Michael Weber and Jim Shaffer

3. Objective of the Research:

Analyze the effect of recent market liberalization policy changes (especially measures to restrict private traders and enhance cooperatives) on food security in Tanzania.

4. Research Approach:

Surveys of farmers, traders and cooperative officials in two regions with surplus and deficit grain producing areas in each.

Survey and analysis of price movement in these and other regions.

5A. Outputs to Date: Working Papers


5B. Outputs to Date: Thesis and Related Papers

5C. Outputs to Date: Seminars/Conferences

Results will be presented at an annual policy workshop organized by the Department of Economics.

Selected results will also be reported in the annual UZ/MSU/SADCC workshop.

Informal interaction with Tanzanian policy workers about study results will be on-going.
1. Cooperating Institutions:

Faculty of Agriculture, University of Zimbabwe
SADCC Food Security Technical & Administrative Unit, Ministry of Lands, Agriculture and Rural Resettlement, Zimbabwe
USAID/Southern Africa Regional Program, Harare
Department of Agricultural Economics, MSU

2. Researchers Involved:

Co-Directors: Mandivamba Rukuni, University of Zimbabwe and J.B. Wyckoff, Michigan State University.
MSU In-Country Researcher: Thomas Jayne
University of Zimbabwe Researchers: Mandivamba Rukuni, Godfrey Mudimu, Jayne Stack, Jones Govereh1, Solomon Chigume1, M. Chisvo1, Augustine Zvinavashe, L. Rugube, E.A. Nuppenau, and Joseph Rusike
Michigan State University Researchers: Chuck Chopak
MSU Campus Backstop: Rick Bernsten, Carl Eicher, Jim Shaffer, Jim Tefft, Mike Weber, and Chris Wolf
USAID/Harare Backstop: Doug Pickett

3. Objectives of the Research:

Inform and guide the implementation of agricultural, nutrition, and rural development strategies that successfully promote food household security. This objective is achieved through analysis of the maize, oilseed and small grain subsectors in order to provide policy makers a better understanding of micro and macro food security policy issues, tradeoffs and alternatives. In addition, the project seeks to test and refine appropriate research methodologies to address food security policy issues; and strengthen indigenous capacity for food security policy analysis.

4. Research Approach:

The Zimbabwe research program has several research thrusts, some of which are being implemented in collaboration with other institutions such as the SADCC/ICRISAT; the Economics and Markets Branch, Ministry of Land, Agriculture and Rural Resettlement; and the Ministry of Health.

A. Household Food Security

1 Research Scholars
These studies analyze national markets, farm households, merchants and selected public programs, using secondary and primary (survey) data. The household research focuses on the maize, oilseed and small grain subsectors, particularly in low-rainfall natural regions. Specific studies are being carried out to: 1) assess the potential of crop diversification to increase rural income and improve food security by analyzing the factors determining current cropping patterns, the potential for and constraints to introducing new crops, and policy strategies to facilitate crop diversification; 2) identify the incidence and constraints to the adoption of agricultural technology and policy mechanisms to promote greater adoption; 3) evaluate household grain marketing strategies and policies to promote grain sales, availability, and food security, and; 4) identify the determinants of household food security—including the incidence of and degree of family food insecurity, the structure and determinants of income and expenditures, the impact of commercialization on family food insecurity, and the impact of alternative policies. This research extends initial analysis that identified factors that contributed to rapid maize production expansion in communal areas since Independence, but found that many households were bypassed.

B. Domestic Market Performance and Reform Opportunities

This study analyzes the potential effects of cereals market reform on improving household food security at lower government costs by analyzing the factors constraining the operation of grain, grain meal, and input markets; assessing the volume and pattern of informal grain trade; and exploring the relationship between current grain consumption preferences and the structure/accessibility of grain and mealie meal marketing and pricing. This study builds on insights gained in previous research that identified bottlenecks in household grain marketing.

C. Expanded Grain Marketing and Trade

These studies analyze domestic and macroeconomic policies and their impact on domestic marketing and trade. Specific studies will: 1) study national grain price, stock, and trade policies to identify the sources of supply and demand instability and their impact on grain access and availability; evaluate the effects of yellow-maize decontrol on white maize supplies; assess the potential small grain trade, and evaluate the potential for alternative grain marketing, price, stock and trade arrangements to improve household food security; and 2) analyze the effect of trade and exchange rate policies on crop diversification and food security. These studies extend previous research on the potential for and barriers to expanded grain marketing and trade in the SADCC region, and an historical analysis of the impact of Zimbabwe's exchange rate policy on agricultural trade.

D. Food Access/Nutrition

This study analyzes the relationship between household grain availability, incomes, and nutritional status; identifies the major factors associated with poor nutritional status; promotes the design of cost-effective nutritional strategies; and, assesses the effectiveness of food relief distribution. This research builds on understandings gained through project-funded research in Botswana on institutional innovation to provide an adequate food supply to at-risk households, including Pula-for-work and supplemental feeding for children under five years, indigents, and pregnant and nursing mothers.
5A. Outputs to Date: Working Papers/Journal Articles/ Chapters in Books and Proceedings


Jayne, T.S. and M. Chisvo. "Zimbabwe's Grain Marketing Policy Challenges in the 1990s: Short Run vs. Long Run Options." In J.B. Wyckoff and Mandivamba Rukuni (eds), Food Security


5B. **Outputs to Date: Theses and Dissertations**


Chopak, C. (in progress), "Structure, Level, and Determinants of Rural Poverty in Low Rainfall Areas of Zimbabwe," Ph.D., MSU.

Govereh, J. (in progress), "Constraints to Crop Productivity in Marginal areas of Zimbabwe: Extent and Impact of Technology Adoption," M. Phil., UZ.


Makombe, G. (in progress), "Economics of Groundnut Production in Zimbabwe," M. Phil, UZ.

Mudimu, G. (in progress), "Crop Diversification in the Low and High Rainfall Communal Areas of Zimbabwe," D.Phil.

Ngobese, P. 1987, "The Economics of Large-Scale Wheat Production in Zimbabwe," M.S., Virginia Polytechnic Institute and State University.


Stanning, J. (in progress), "Smallholder Marketing and Consumption Behavior in Three Communal Areas of Zimbabwe," D.Phil., UZ.

5C. **Outputs to Date: Seminars, Conferences, and Conference Proceedings**

In Zimbabwe, the Food Security team has made presentations at:


- Review of Policy Implications of the Maize Study Research (Rohrbach) presented to policy analysts and decision makers in the Ministry of Agriculture, Lands and Resettlement, Grain Marketing Board and Agricultural Finance Corporation.

- Seminars at the Faculty of Agriculture, University of Zimbabwe.


In the U.S., presentations on the research have been made to:

- USAID officials in Africa Bureau and S & T.

- MSU students and faculty on six different occasions.

- Rockefeller Foundation

Conference Proceedings:


SECTION X

FACT SHEET - SAHEL REGIONAL PROGRAM FOR STRENGTHENING INSTITUTIONAL RESEARCH CAPACITY ON FOOD SECURITY IN THE SAHEL (PRISAS)

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University

(In-country time period: January 1990 - November 1992)

1. Cooperating Institutions:

Institut du Sahel (INSAH), Bamako, Mali
A.I.D./Washington - Africa Bureau, Office for Sahel West Africa
Department of Agricultural Economics, MSU

2. Researchers Involved:

Dr. A. Tijan Jallow, Directeur General, INSAH (Overall Coordinator)
Dr. Josué Dione, In-country Program Director; Bakary Kanté
Campus Backstop: Drs. John Staatz, Eric Crawford, A. Allan Schmid, Thomas Reardon, and Michael Weber

3. Objective of the Research:

Strengthen Sahelian institutional capacity to carry out food security policy analysis and extension activities;

Diffuse more widely to Sahelian researchers and policy makers the results of recent food security research and policy reforms;

Train Sahelian food security researchers in improved research methods;

Stimulate new studies on regional food security issues in the Sahel.

4. Research Approach:

The work plan will begin with the establishment of an office at INSAH in Bamako, and the development of four synthesis research reports along with an inventory and review of existing research on food security in the Sahel.

5A. Outputs to Date: Working Papers


5B. Outputs to Date: Thesis and Related Papers
5C. Journal Articles


Reardon, T., J. Hopkins, and V. Kelly, "Structural adjustment impacts on real incomes and demand patterns or urban and rural households in the Sahel", presented at the 29th Seminar of the European Association of Agricultural Economics, 'Food and Agricultural Policies Under Structural Adjustment', Sept. 21-25, 1992, Hohenheim, Germany. (Represents collaborative work with IFPRI).

Reardon, T., V. Kelly, B. Diagana, and A. Fall, "Potential welfare impacts of trade regime changes on households in Senegal: Focus on Devaluation", presented at the IFPRI/ISRA conference

5D. Outputs to Date: Seminars/Conferences


Prepared extensive documentation of market information, research and policy diffusion work with OPAM/Mali for the Seminaire du CILSS/Club du Sahel sur les Setémes d'information.


Center for Advanced Studies in International Development (CASID), Michigan State University, 1st Special Seminar, Oct. 29, "Income diversification in the West African Semi-Arid Tropics (WASAT): Policy and Development Strategy Implications"

Mali: Institut du Sahel/CILSS (Seminar presentation, March 1992: Effects on rural economies of high transaction costs)


Germany: University of Hohenheim (Seminar presentations on structural adjustment impacts in Sahel: see paper titles above), 29th Seminar of European Association of Agricultural Economics

Mali: Institut du Sahel/CILSS (Seminar presentation, November 1992: Role and determinants of income diversification in the Sahel: illustration from Burkina Faso

Cote d'Ivoire: WAEA/ESAEA (Seminar presentation, October 1992: Is income diversification 'agriculture-led' in the WASAT? Survey evidence and development strategy implications"
SECTION XI

FACT SHEET - NUTRITION STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT
Department of Agricultural Economics
Michigan State University

(Time period: September 1989 - November 1992)

1. Cooperating Institutions:
   A.I.D./Washington Science and Technology Bureau, Office of Nutrition
   Department of Agricultural Economics, MSU

2. Researchers Involved:
   Drs. John Staatz, Michael Weber, James Shaffer, MSU and Dr. Tiladidia Thiombiano, Director of
   CEDRES in Burkina Faso, and visiting scholar at MSU in 1990/91.
   Shelly Sundberg (Ph.D. candidate at Stanford University) and Larry Rubey (Ph.D. candidate at
   MSU).

3. Objective of the Research:
   To build upon research undertaken in Mali that links rural household production, consumption, and
   nutrition information.

4. Research Approach:
   Conduct more in-depth analyses to determine the major causes of malnutrition in this part of Africa
   and identify policy measures that can reduce it.
   Carry out additional field surveys in Mali to provide complementary data to the original data set.
   Develop analyses of similar issues for other countries in Africa using existing secondary
   information.
   Draw implications from such analyses for various government and donor programs such as targeted
   food subsidies.
   Diffuse the results of these analyses to A.I.D. officials, African decision makers, and African food
   security researchers. This diffusion will include training Sahelian food security researchers in the
   methods needed to carry out such analyses.

5A. Outputs to Date: Working Papers

   Consumer Food Subsidies and the Role of US Food Aid Programming in Africa." (In Draft)
   Report of a workshop sponsored by Food and Voluntary Assistance Bureau -


5B. Outputs to Date: Thesis and Related Papers

Sundberg, Shelly, "Ph.D. thesis for degree in Ag. Econ at Stanford is in process, using data collected in collaboration with SESA/MSU Village Studies in Mali.

5C. Outputs to Date: Seminars/Conferences

Presentations of research results have been made to:

i. A.I.D./w, Office of Food for Peace, Workshop on Targeted Food Subsidies in Africa (November 1989)

ii. A.I.D./W, Office of Nutrition, Agriculture Nutrition Linkages Workshop (February 1990)

iii. American Agricultural Economics Association Annual Meetings (Vancouver, B.C., August, 1990)
1. Cooperating Institutions:

A.I.D./Africa Bureau, Office of Analysis, Research and Technical Support; Food, Agriculture and Resource Analysis Division

USAID Missions and Collaborating Institutions:
• USAID/Yaoundé
  - Institut de Recherches Agronomiques (IRA)
  - National Cereal Research and Extension Project (NCRE)
  - Purdue University Bean/Cowpea CRSP team
  - Bean/Cowpea CRSP Management Office at Michigan State University.
• USAID/Nairobi
  - Kenya Agricultural Research Institute (KARI)
• USAID/Lilongwe
• USAID/Bamako
  - Institut d’Economie Rurale, Département de Planification et Economie Rurale (IER/DPER)
• USAID/Niamey
  - Institut National de la Recherche Agronomique du Niger (INRAN)
  - International Service for National Agricultural Research (ISNAR)
• USAID/Kampala
  - Makerere University, Faculty of Agriculture and Forestry (MUFAF)
  - Ministry of Agriculture, Animal Industries and Fisheries (MOAAIF)
  - Manpower for Agricultural Development Project (MFAD)
• USAID/Lusaka
  - Ministry of Agriculture, Food and Fisheries (MOAFF)
  - Rural Development Studies Bureau (RDSB), University of Zambia

2. Researchers Involved:

Cameroon: Georges Dimithé, (IRA); James Sterns (MSU In-Country Researcher)
Kenya: Daniel Karanja, (KARI), David Makanda (IDS), Valentina Mazzucato (MSU/ISNAR)
Malawi: James Oehmke
Mali: Dr. Bino Témé, Abadou Diarre, Sidi Diallow, Mme. Bouré Assa Kanti, (IER/DPER);
  Duncan Boughton and Bruno Henry de Frahan (MSU In-Country Researchers)
Niger: Samba Ly, (INRAN); Valentina Mazzucato (ISNAR and MSU In-Country Researcher)
Objective of the Research:

Critically review the literature on *ex post* and *ex ante* evaluation of agricultural research with emphasis on implications for Africa and methodologies applicable to Africa.

Assess the potential for application of current methodologies to evaluate African agricultural research.

Collaborate with staff of AFR/ARTS/FARA to select and design research programs in a number of African countries on the impacts of investments in agricultural research.

Undertake other selected activities to evaluate the effects of alternative investments in agricultural research.

4. Research Approach:

Following the review of literature and a workshop to discuss methods of choosing and undertaking the country studies, three countries (Kenya, Malawi, Mali) were chosen for Phase I studies, and four other countries (Cameroon, Niger, Uganda, Zambia) were chosen for Phase II studies. Short-term studies (five months or less) were conducted in Cameroon, Kenya (maize), Malawi, and Niger; long-term studies (twelve months or more) were conducted in Kenya (wheat), Mali, Uganda, and Zambia.

5A. Outputs to Date: Working Papers (General, and Grouped by Country)

General:


Cameroon:


Kenya:


Malawi:


Mali:


Niger:


Uganda:


Zambia:


5B. Outputs to Date: Dissertations and Theses


5C. Outputs to Date: Seminars/Conferences

Briefings:

Briefings on the results of the impact studies were given to USAID Missions and local collaborating institutions by MSU in-country researchers in Cameroon (August 1991), Niger (June 1992), Uganda (July 1992), and Zambia (November 1992). Further briefings are scheduled for Kenya (January, 1993) and Uganda (January, 1993).

Overall:

Presented results of literature review at USAID-sponsored workshop on returns to agricultural research, Washington, DC, April 24-25, 1990.

Conducted workshop on issues and methods of assessing the impact of agricultural research, Dept. of Ag. Econ., MSU, June 1991.

