

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Between

Africa Bureau, Office of Technical Resources, AID

Bureau of Science and Technology, Office of Rural and Institutional Development, AID

Department of Agricultural Economics, Michigan State University

May 1, 1987

FACT SHEET - FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Cooperating Institutions and Funding Sources:

AID/Bureau of Science and Technology: Contact Person, David Atwood, ST/RD/ASI

AID/Africa Bureau: Contact Person, Richard Edwards, AFR/TR/ARD

USAID Field Missions, Host Country Institutions, Department of Agricultural Economics--MSU

MSU Faculty and Research Assistants Involvement: Mike Weber and Carl Eicher (Co-Directors), Rick Bernsten, Eric Crawford, John Holtzman, Harold Riley, Jim Shaffer, John Staatz, Josue Dione, Stephan Goetz, Bruno Henry de Frahan, Thomas Jayne, David Rohrback, Scott Loveridge, Phil Steffen, Yassin Wehelie, and others as topics and opportunities arise.

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.

Applied Research Themes:

A. Primary Focus:

1. 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.

Operationalizing the Applied Research: Country Studies.

1. **Southern Africa**--Analysis of maize, wheat and groundnut subsectors in Zimbabwe in order to provide policy makers with an understanding of micro and macro food security policy issues, tradeoffs and alternatives. Develop methodological modules for undertaking food grain subsector studies in other SADCC states. Analysis of managing food production, national grain reserves and trade in the SADCC region. Developing indigenous capacity for food security policy analysis.
2. **Senegal**--Analysis of the response of cereals producers and market participants to privatization of input and output marketing: a micro-macro level analysis.
3. **Mali**--Analysis of 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.
4. **Rwanda**--Analysis of the effects of existing and alternative price formation processes on market performance and food security.
5. **Somalia**--Analysis of the effects of selected market, institutional, and technological variables on the investment and production decisions of maize and sesame producers in the Shebelli region, and the implications of these decisions for food security in Somalia.

Examples of Research Results:

- A. Senegal and Mali--Impact of liberalization on farmgate prices and on farmers' access to inputs and to market outlets.
- B. Mali--Effects of cash cropping and animal traction on household food security; factors affecting adoption of improved cowpea varieties.
- C. Rwanda--Impact of nonfarm activities on farm families household food security; effects of bean imports on price policy.
- D. Zimbabwe--Factors responsible for significant increases in smallholders' production and marketings of maize.
- E. Somalia--Yield-gap analysis for irrigated maize, effects of inputs and output market options
- F. Southern Africa--Analysis to support SADCC's new food and agricultural policy.

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FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

1. RESEARCH DESIGN/IMPLEMENTATION PROCESS

- A) GOAL IS USEFUL RESEARCH THAT SERVES A COMPLEX AND DIVERSE SET OF INTERESTS: AID/W, USAID'S, HOST INSTITUTIONS, MSU.
- B) IDENTIFY RESEARCH THEMES. PROJECT GAP ANALYSIS.
- C) LOOK AT CURRENT POLICY AND ISSUES AS A MEANS OF GAINING INSIGHT INTO THE RESEARCH THEMES AND TO DRAW LESSONS USEFUL IN DESIGNING FUTURE POLICIES.
- D) USE NATURAL EXPERIMENTS (DIFFERENT COMBINATIONS OF POLICIES AND ENVIRONMENTAL CONDITIONS).
- E) USE EFFECTIVE MANAGEMENT TOOLS IN IMPLEMENTING RESEARCH.
- F) LOCAL INSTITUTION PARTICIPATION—REQUEST RESOURCES TO ASSURE LOCAL ANALYSTS PARTICIPATE.
- G) USE COMBINATION OF JUNIOR AND SENIOR MSU STAFF.
- H) USE COMBINATION OF SECONDARY AND ORIGINAL DATA.
- I) DO POLICY DIALOG/EXTENSION THROUGHOUT, NOT JUST AT THE END.
- J) WHERE POSSIBLE COLLABORATE WITH OTHER RESEARCHERS AND/OR DONORS.

2. OUTPUTS

- A) TIMELY FEEDBACK TO LOCAL DECISION MAKERS AND USAIDS.
- B) CROSS COUNTRY SYNTHESIS
 - 1. HISTORICAL PERSPECTIVE ON SELF SUFFICIENCY/SELF RELIANCE AND FOOD SECURITY.
 - 2. METHODOLOGICAL CONTRIBUTIONS-DATA ANALYSIS AND RESEARCH DESIGN/DATA COLLECTION/DATA PROCESSING.
 - 3. NEW KNOWLEDGE FROM CROSS-COUNTRY INSIGHTS.
- C) HUMAN CAPITAL DEVELOPMENT
 - 1. LOCAL PARTICIPATION, IN-SERVICE TRAINING.
 - 2. EXPERIENCE IN ON-GOING POLICY DIALOG.

**DIMENSIONS OF SOLUTIONS TO
FOOD SECURITY PROBLEMS
IN FOOD SYSTEM FRAMEWORK**

PROBLEM AREA	FOOD SYSTEM	
	SUPPLY	DEMAND
SHORT TERM INSECURITY (TRANSITORY)	<ul style="list-style-type: none"> --FOOD AID --FOOD RESERVES --STOCK MANAGEMENT 	<ul style="list-style-type: none"> --FOREIGN EXCHANGE DRAW DOWN --EMERGENCY INCOME TRANSFER
LONG TERM INSECURITY (CHRONIC)	<ul style="list-style-type: none"> --INCREASE PRODUCTION AND MARKETING POTENTIAL --SHIFT COMPOSITION OF PRODUCTION & MARKETING OUTPUT 	<ul style="list-style-type: none"> --INCREASE INCOME AND EMPLOYMENT IN BOTH AG. & NON-AG SECTORS

EMERGING CROSS-COUNTRY THEMES FROM FOOD SECURITY IN AFRICA FIELD STUDIES—NOTES FROM SESSIONS AT M.S.U.—WINTER 1987

1. Prices are necessary, but certainly not a sufficient incentive to expand output. Many farmers already face higher prices (because they buy from the market) and still cannot expand output.
2. Income side of food security and the importance of activities other than food-crop production in income generation and household food security.
3. Thinness of food markets in many of the study countries. There is a need to distinguish between market surpluses (due to thinness of market and the effective demand constraint) and hunger. Need also to analyze the effect of government policies (e.g., the head tax in Mali) in helping generate these market surpluses at the same time that there is substantial hunger.
4. Need to target policies much more carefully given the diversity of farmers and consumers.
 - a. Differential impact of price policy (both floor prices and retail prices) on various groups of producers and consumers.
 - b. Perception that farmers only sell food often leads to poor policy.
5. Coping strategies of different classes of farmers and traders to deal with weather variations are very critical, these affect the viability of new technology, institutions, and policy.
 - a. Intra-annual strategies (management of stocks, sales of crops, livestock, and labor, etc.)
 - b. Inter-annual issues of investment and disinvestment, especially for farmers' investments in inputs complementary to new production technology.
6. The impact of overall policy and institutional variables on influencing the potential profitability of promising technological innovations (e.g., impact of marketing constraints on the profitability of expanding production of improved varieties of cowpeas in Senegal and Mali).
7. Methodological issues:
 - a. Improved statistical data bases are essential to developing effective programs and policy.
 - b. Designing studies that generate information from the farm-level and merchant-level that informs the policy process? Relevant micro data to inform macro questions is frequently missing.
 - c. Creating demand for this type of information within government decision-making agencies.
8. Institution building issues:
 - a. Policy makers are responsive to new information, but it takes time to develop the tradition of seeking and receiving empirical evidence on issues.
 - b. Developing local capacity to analyse and disseminate research results on a timely basis.
 - c. The best way to train people to do research is by doing it together. A mix of senior and junior professionals can be very effective in designing and implementing applied research.
 - d. Research designs that provide basic information on a timely basis are very important in building the longer-term credibility for social science research.

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FACT SHEET - MALI STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University

1. Cooperating Institutions:

USAID/Bamako
Technical Secretariat of the Food Sector Strategy Commission (ST/CESA)
Department of Agricultural Economics, MSU

2. Researchers Involved:

ST/CESA: Moussa Kalifa Traore, Niama Nango Dembele (currently at the University of Michigan), Daouda Keita, Oumou Mariko, and Kadian Doumbia
MSU In-Country Researcher: Josue Dione
MSU Campus Backstop: John Staatz

3. Objectives of the Research: 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.

4. Outputs to Date

a. Working Papers

<u>No.</u>		<u>Date</u>
86-01	Josue DIONE, Niama Nango DEMBELE, Daouda KEITA, et Mme. MARIKO Oumou DIALLO. "Evolution et Situation Actuelle du Projet d'Etude sur la Securite Alimentaire au Mali."	Feb., 1986
86-02	Josue DIONE et Niama Nango DEMBELE. "Description des Circuits Cerealiers au Mali et Analyse des Donnees Secondaires de Prix des Cereales mil-mais-sorgho."	Mar., 1986
86-03	Josue DIONE et N. Nango DEMBELE. "Analyse Provisoire de la Campagne de Commercialisation 1985/1986 Des Cereales (mil-sorgho) au Mali."	Aug., 1986
86-04	N. Nango DEMBELE, Josue DIONE et John M. STAATZ. "Description et Analyse de la Structure du Marche des Cereales (mil, sorgho, mais) au Mali."	Sept., 1986
86-05	N. Nango DEMBELE, Josue DIONE et John M. STAATZ. "Description et analyse du Comportement et de la Performance du Marche de Gros des Cereales (mil, sorgho, mais) au Mali."	Sept., 1986

b

b. Seminars

In Mali the food security team has presented seminars to:

- a. The Food Sector Strategy Commission (in July, 1985 and August, 1986);
- b. The technical committee of the Cereals Market Restructuring Project (PRMC) (in February and March, 1986); and
- c. USAID/Bamako (in May, 1986).

In the U.S., seminars on the research have been presented to:

- a. All-University Faculty Seminar, MSU (February, 1986);
- b. Economic Development Workshop, Dept. of Economics, MSU (May, 1986)
- c. Dept. of Agricultural Economics, Cornell University (May, 1986); and
- d. USAID/W, Bureau of Science and Technology and Bureau for Africa (May, 1986).

c. Other

Participation in a special program on Malian television on the Cereals Market Restructuring Project (September, 1986).

5. **Expected Future Outputs:**

a. Working Papers

1. "Le Programme de Restructuration du Marche Cerealier au Mali (PRMC): Une Analyse de ses objectifs, son Fonctionnement, et ses Performances." Josue DIONE et Nango DEMBELE
2. "Recueil des Questionnaires Utilises dans la Collecte des Donnees par le Project Securite Alimentaire MSU-CESA au Mali." Josue DIONE, Nango DEMBELE, Daouda KEITA, Mme. Oumou MARIKO
3. "Production, Consommation, et Transactions des Cereales par les Producteurs Agricoles pendant la Campagne 1985/86." Josue DIONE et Daouda KEITA
4. "Strategies Alimentaires (Stockage, Commercialisation, Investissement) des Producteurs Agricoles." Josue DIONE
5. "Methodologie et Approche Operationelle du Project Securite Alimentaire MSU-CESA au Mali." Josue DIONE et John STAATZ
6. "Quelques Questions Relatives a la Recherche sur le Systeme de Production Agricole." Josue DIONE et John STAATZ
7. "Complement d'Analyse de la Campagne de Commercialisation 1985/86 des Cereales (Mil, Sorgho, Mais) au Mali." Josue DIONE

8. "Analyse de Debut de la Campagne 1986/87." Josue DIONE
9. "L'Impact Socio-economique des Nouvelles Varietes de Niebe sur 4 Villages au Environs de la Station de Recherche Agronomique de Cinzana." Ousmane COULIBALY (Publication conjointe CRDI - ICRISAT - MSU/CESA)
10. "Cereals Marketing Research in Mali: Implications for Farming Systems Research." John STAATZ and Josue DIONE

b. Seminars and Other Activities

Participation in FAO-USAID (S&T) conference on food policy in Francophone Africa, Dakar, February, 1987

Ongoing presentations to Malian government agencies, USAID/Bamako, and other donor groups working on food policy in Mali

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FACT SHEET - SOMALIA STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University

1. Cooperating Institutions:

USAID/Mogadishu
Ministry of Agriculture, Planning Division, Mogadishu
Department of Agricultural Economics, MSU

2. Researchers Involved:

1. Ministry of Agriculture, Planning Division: Abukar Osman Abikar (Director), Ali Omar Ugas
2. National Extension Service: Hussein Iman, Nur Haji Deere.
3. Somali National University, Faculty of Agriculture: Mohammoud Ibrahim Asser.
MSU In-Country Researcher: Yassin Wehelie
MSU Campus Backstop: John Holtzman, Michael 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 Shebelli regions and the implications of those decisions for food security in Somalia.

4. Expected Outputs - Tentative Topics to be Included in Working Papers and Reports:

1. Adjustments to market-price liberalization in Somalia, with a focus on maize.
2. Maize farmer strategies to deal with economic and environmental uncertainty: implications for policy.
3. The changing market performance and problems in the distribution of farm inputs for maize.
4. Factors influencing the production and marketed surplus of maize and sesame.
5. Potential contribution to maize output from solving the supply problem for improved maize seed and fertilizers in the Shebelli area.
6. The potential for expanding production and marketing of maize and sesame in the Shebelli: implications for the demand for inputs.
7. The relationship of food aid management to the economics of maize production, storage, and marketing in the Shebelli areas.
8. International trade and the economics of maize in Somalia: Benefits and costs associated with importing technical inputs, increasing maize outputs, import substitution, etc. The estimated effects of tariffs and restrictions on the maize subsector.

FACT SHEET - RWANDA STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University

1. Cooperating Institutions:

OAR/Rwanda

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 and Yvan Dejaegher
MSU In-Country Researcher: Scott Loveridge
MSU Campus Backstop: Mike Weber

3. Objectives of the Research: Analysis of production, market price and food security relationships among selected storable commodities. Special emphasis on the effects of existing and alternative price formation processes on market performance and food security.

4. Expected Outputs - Tentative Topics to be Included in Working Papers and Reports:

1. Production, Markets, Prices and Food Security Relationships for Selected Storable Commodities in Rwanda - A Research Plan.
2. Analysis of Production, Population, and Price Trends for Beans and Sorghum in Rwanda.
3. Compilation of Historical Agricultural Price Data from Various Sources, Including a Detailed Description of Price Collection Methodologies.
4. A Study of Agricultural Commodity Merchants with Fixed Place Operations in Five Prefectures of Rwanda.
5. Quantities of Beans and Sorghum Purchased and Sold by Farmers in Rwanda, Including Breakdowns by Farm Production Class, and Characteristics of Transactions.
6. Survival and Risk Management Strategies, and Standard Operating Procedures of Rwandan Farm Families.
7. The Role of Rwandan Extension Agents in Collecting and Extending Information About Crop Prospects, Prices, Markets, and Farm Commodity Policies.
8. Information from Rwandan Farmers About Potential Supply Responses to Economic Incentives.
9. Characteristics of Rwandan Households with Low Food Consumption and Those with the Largest Marketed Surplus with Implications for Food Security.
10. Food Aid, Prices and Food System Incentives in Rwanda.
11. Assessment of Potential for Storable Commodity Supply Response in Rwanda: A Summary of Conclusions from Interviews with Farming Systems and Agricultural Production Researchers.
12. Observations on Market Performance in the Food Grain Sub-Sector and Implications for Programs of Public Stocks Management and Price Stabilization in Rwanda.
13. The Potential for Using Reported Farm Commodity Prices as an Indicator of the Next Season Crop Size and Prices.
14. Production, Markets, Prices and Food Security in Rwanda: A Summary Report.

FACT SHEET - SENEGAL STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University

1. Cooperating Institutions:

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

2. Researchers Involved:

Senegalese Research Coordinator: Jacques Faye
MSU In-Country Researcher: Stephan Goetz
Senegalese Collaborating Researchers: Bocar Diagana, Aboulaye Fall, Ousseynou Ndoye
MSU Campus Backstop: Eric Crawford, John Holtzman, John Staatz, Margaret
Beaver
USAID/Dakar Backstop: Richard Caldwell, Mawa Diop

3. Objective of the Research:

Analyze the response of cereals producers and market participants to privatization of input and output marketing.

4. Research Approach:

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

5. Expected Outputs - Tentative Topics to be Included in Working Papers and Reports:

1. Factors influencing strategies followed by selected types of farm families in regard to production, investment, purchase of inputs, purchase of consumption goods, marketing and storage: implications for policy and programs.
2. The changing performance and potential improvements in selected farm input distribution systems and product markets in Senegal food grain subsectors; the roles of farmer organizations, private merchants and parastatals.
3. Inferences about anticipated supply responses to potential changes in selected farm input and product market and technology. Implications.
4. Effectiveness of selected policies and programs designed to improve food security.

FACT SHEET - SOUTHERN AFRICA STUDY

FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Department of Agricultural Economics
Michigan State University

1. Cooperating Institutions:

Faculty of Agriculture, University of Zimbabwe; SADCC Food Security Administrative Unit, Ministry of Lands, Agriculture and Rural Resettlement, Harare and USAID/Southern Africa Regional Program, Harare.

2. Researchers Involved:

Co-Directors: Mandivamba Rukuni, University of Zimbabwe and Carl K. Eicher, Michigan State University.

Research Staff: University of Zimbabwe: Mandivamba Rukuni, Carl K. Eicher, Kay Muir, Jayne Stanning, Steve Buccola, Godswill Makombe, Fidelis Mangwiro, David Rohrbach, Charles Mbwanda, Peter Ngobese, Chrispen Sukume and Godfrey Mudimu.

Research Associates: M.I. Gomez, Food Science, Department of Biochemistry and Solomon Tembo, Department of Agricultural Engineering, University Zimbabwe; Mudziviri Nziramasanga, Ministry of Finance, Economic Planning and Development, Harare, and Professor of Economics; Washington State University; K. M. Ttawali, Ministry of Agriculture, Lilongwe; Malcolm Blackie, CIMMYT, Lilongwe; and Jim Longmire, CIMMYT, Mexico.

MSU in-Country Researchers: Carl K. Eicher, David Rohrbach, and Steve Buccola in collaboration.

MSU Campus Backstop: Rick Bernsten

3. Objectives of Research:

Analysis of maize, wheat and groundnut subsectors in Zimbabwe in order to provide policy makers with an understanding of micro and macro food security policy issues, tradeoffs and alternatives. Develop methodological modules for undertaking food grain subsector studies in other SADCC states. Analysis of managing food production, national grain reserves and trade in the SADCC region. Developing indigenous capacity for food security policy analysis.

4. Expected Outputs - Tentative Topics to be Included in Working Papers, Reports, Papers; Monographs and Books.

Research results will be presented as preliminary outputs during the initial project life, and revised for subsequent presentation and publication. The following list includes publications by researchers directly associated with the project and papers presented at the December 1985 Conference.

**Working Papers and Associated Research Output:
Completed and Projected**

1. Rick Bernsten and David Rohrbach, "Inventory of Household Level Agricultural and Socio-Economic Data Sets, in Zimbabwe," August 15, 1985.
2. Jayne Stanning, "Factors of Change and Uncertainty in the Contribution of Small Scale Producers to Marketed Agricultural Output in Zimbabwe," paper presented at the XIXth Conference of the International Association of Agricultural Economists, Malaga, Spain, August 25-September 5, 1985.
3. Carl K. Eicher and John M. Staatz, "Food Security Policy in Sub-Saharan Africa," paper presented at the XIXth Conference of the International Association of Agricultural Economists, Malaga, Spain, August 25-September 5, 1985.
4. Carl K. Eicher, "An Assessment of the CGIAR System in Africa," paper presented at the Annual Meeting of the Consultative Group on International Agricultural Research, Washington, D.C., October 28-29, 1985.
5. Carl K. Eicher, "Famine Prevention in Africa: The Long View," in: Food for the Future: Proceedings of the Bicentennial Forum Held at Philadelphia, November 6, 1985, pp. 82-101.
6. Brian Child, Kay Muir and Malcolm Blackie, "An Improved Maize Marketing System for African Countries: The Case of Zimbabwe," Food Policy, pp. 365-373.
7. G. Homewood and M.J. Blackie, "Grain Marketing in Southern Africa: Illustrations from the Zimbabwe Grain Marketing Board," December 1985.
8. M. Rukuni and M.J. Blackie, "Irrigation and Food Security in Southern Africa," December 1985.
9. S.T. Buccola, "Modelling Policy Options for the Zimbabwe Food Grain Subsector," December 1985.
10. D. Rohrbach, "The Economics of Communal Sector Maize Production in Zimbabwe: 1980-1985," December 1985.
11. S.C. Muchena, "SADCC's Food Security Programme: Implications for Food Security Researchers," December 1985.
12. Peter T.W. Murphy, "The Zimbabwe National Grain Reserve, and Grain Trade Policy Issues with Particular Reference to Barter Trading," December 1985.
13. F.H. Drane, "Feasibility Study of a Regional Grain Reserve and Food AID in the SADCC Region," December 1985.
14. C. Muntanga, "National Grain Reserve and Trade Policy Issues in Zambia," December 1985.
15. Howard Sigwele, "Botswana National Food Security Policy," December 1985.
16. Jayne Stanning, "Household Grain Marketing and Storage Decisions in Southern Africa," December 1985.

17. Carl K. Eicher, Transforming African Agriculture. The Hunger Project Papers, No. 4, San Francisco, The Hunger Project, January 1986.
18. Carl K. Eicher, "Western Science and African Hunger," Francqui Foreign Lecture, Catholic University of Leuven, Leuven, Belgium, February 5, 1986.
19. Carl K. Eicher, "Strategic Issues in Combatting Hunger and Poverty in Africa," IN: Strategies for African Development, edited by Robert Berg and Jennifer Whitaker, Berkeley, University of California Press, pp. 242-275, May.
20. Carl K. Eicher, "Food Security Research Priorities in Sub-Saharan Africa," Keynote Address, OAU/STRC/SAFGRAD International Drought Symposium, Kenyatta International Conference Center, Nairobi, 19-23 May 1986.
21. Carl K. Eicher and Fidelis Mangwiro. "A Critical Assessment of the FAO Report on SADCC Agriculture and Agricultural Sector Studies," a paper presented at a SADCC Meeting of Permanent Secretaries, Chief Economists, Ministers of Agriculture and SADCC Food and Agriculture Sector Coordinators," Harare, July 24-26, 1986.
22. Carl K. Eicher and Mandivamba Rukuni, "Developing a SADCC Food and Agriculture Strategy: Objectives, Components and Process," background paper prepared for the SADCC Meeting, Harare, July 24-26, 1986.

Projected Outputs: August 1986-August 1987

- Kay Muir, "The Impact of Government Controlled Prices on Maize Supplies in Eastern and Southern Africa," Department of Agricultural Economics and Extension, UZ, August 1987.
- Carl K. Eicher and Fidelis Mangwiro, "A Critical Assessment of the FAO Report on SADCC Agriculture," invited paper prepared for the SACCAR Newsletter, November 1986.
- M.J. Blackie, "Restructuring Agricultural Delivery Systems in Sub-Saharan Africa: A Case Study of Zimbabwe," in J. Mellor, C. Delgado and M.J. Blackie, eds., Accelerating Food Production Growth in Sub-Saharan Africa. Baltimore, The Johns Hopkins University Press, forthcoming.
- Conference Papers. Approximately 16 papers will be presented at the UZ/MSU Conference on Food Security Research in Southern Africa, Holiday Inn, Harare, November 9-13, 1986.
- Carl K. Eicher, "Farming Systems Research in Africa: An Assessment of the First Decade," invited paper to be published in Experimental Agriculture, in 1987.
- Fidelis Mangwiro and Mudziviri Nziramasanga, "Costs and Benefits of a Regional Grain Reserve for the SADCC States," January 1987.
- Malcolm Blackie, "The Evolution of Zimbabwe's Agricultural Policy, 1965-1986," March 1987.
- S.T. Buccola and C. Sukume, "National Grain Policies and Social Welfare," March 1987.
- S.T. Buccola and C. Sukume, "Food Security: A National Modelling Perspective," April 1987.

Godswill Makombe, Rick Bernsten and David Rohrbach, "Preliminary Results of a Survey of Smallholder Groundnut Production in Zimbabwe," November 1986.

Jaoyne Stanning, "Household Grain Storage and Marketing Decisions in Surplus and Deficit Communal Areas: Preliminary Findings," November 1986.

Jayne Stanning, "A Model of Household Grain Storage and Marketing Decision-Making in Communal Areas of Zimbabwe," November 1986.

David Rohrbach, "Maize Cropping Strategies of Communal Farmers in High and Low Rainfall Areas in Zimbabwe," November 1986.

David Rohrbach, "The Economics of Maize Production in Zimbabwe: Food Security Implications," August 1987.

David Rohrbach, "The Impact of Prices on Cropping Decisions of Communal Farmers in Zimbabwe," August 1987.

David Rohrbach, "Research Design Module for the Study of Smallholder Maize Production in SADCC States," August 1987.

Book Manuscript. In June 1986, UZ/MSU will convene a conference in Harare to discuss draft chapters for a book manuscript - S. Buccola, M. Rukuni, Malcolm Blackie and Carl K. Eicher, eds., "Food Security Policy Options in Southern Africa." The manuscript will contain approximately 18 chapters.

Wheat Monograph. A monograph summarizing the Institutional Base for Smallholder Agriculture in the SADCC States: A Regional Perspective, July 1987.

Carl K. Eicher, "Strengthening the Institutional Base for Smallholder Agriculture in the SADCC States: A Regional Perspective, July 1987.

Carl K. Eicher, "Food Security Policies or Projects: A Critical Assessments of SADCC'S Food Security Program, 1980-87," August 1987.