July 11, 1986

# INTERNATIONAL ACTIVITIES OF THE DEPARTMENT OF AGRICULTURAL ECONOMICS<sup>1</sup>

# Introduction

This paper briefly summarizes the past and present involvement of the Department of Agricultural Economics in international research, teaching and extension. Goals of international activities in each of these areas are integrated into the overall mission statement of the department. (See Department Overview by Connor and Manderscheid). With this background and in light of the projected external and internal environment for international work, key issues are listed as points of reference for further discussion. These issues emphasize organizational and institutional concerns for the continuation of a strong international program.

## Historical Review

Over the past 35 years Michigan State University has undertaken a wide range of international projects. A substantial international experience and competence has developed among MSU faculty in a wide range of academic units, especially agriculture, education, business, communications and engineering. The Agricultural Economics Department was first involved in international activities through institution-building projects at the University of Ryukus, Okinawa beginning in 1951 and at the National University of Colombia beginning 1952. The department became intensively involved in international activities in the early 1960s with major projects in Nigeria and Latin America. Glenn Johnson, Carl Eicher and Warren Vincent all had major leadership roles in the institution-building work with the University of Nigeria (1960) and the later research undertaken by the Consortium for the Study of Nigerian Rural Development.

Involvement in these activities led in the late 1960s and early 1970s to a series of new research programs -- the Agricultural Sector Analysis and Simulation Projects, with Glenn Johnson and Ed Rossmiller playing major roles, and the African Rural Employment Project, with Carl Eicher and Derek Byerlee as principal researchers. In addition, Warren Vincent assumed an important advisory role for foreign graduate students emphasizing micro-level farm management research. Eric Crawford and, more recently, Rick Bernsten have strengthened the department's international focus on micro-level production problems.

The Latin American Marketing Project was initiated under the joint leadership of Charles Slater, Department of Marketing (College of Business), and Harold Riley to conduct research on the role of food marketing in economic development. Major problem-solving research studies and a large number of consulting missions were conducted under this project. Follow-on activities in this area by Riley, Shaffer, Harrison, Weber, Staatz and others has helped MSU gain an international reputation in agricultural and food marketing system development.

<sup>&</sup>lt;sup>1</sup>This paper has been prepared by <u>Mike Weber and John Staatz</u>. It updates and extends the paper prepared by Byerlee, Harrison, and Rossmiller in 1977.

Department involvement in rural development activities at the international level trace back to the Comilla Project in 1958. Both formal and informal contact with that project and its activities had their influence on the Consortium for the Study of Nigerian Rural Development and the African Rural Employment Project and resulted in the former director of the Comilla Project, Akhter Hameed Khan, returning to MSU as a visiting scholar. From 1971 to 1973 Garland Wood conducted research on rural development project administration in less developed countries, with field work in Costa Rica.

During a five-and-one-half year period ending September, 1976, the department was a recipient of a major 211d grant from AID to develop the capacity of the department to undertake international development activities. This grant enabled the department to build up the number of core international faculty and fund a substantial number of graduate students with international interests. Upon termination of this 211d program in 1976, the department was again selected, through a national competitive process, as one of six U.S. university agricultural economics units to participate in a new "cooperative agreement" program funded by AID. Two of these "cooperative agreements" were eventually located at MSU, one entitled "Alternative Rural Development Strategies" and the other "Rural Non-Farm Employment," which is conducted jointly by the Departments of Economics and Agricultural Economics. Over the period 1977-1984 the cooperative agreements were renewed, and constitute major on-going projects for the department.

The department's international interests have also included work in Western Europe in addition to the LDCs. In the mid to late 1960s the department carried out under contract with USDA a series of studies on (I) the grain-livestock economies of the European Economic Community (EEC) and trade prospects for the U.S. and (2) the implications and impact of the major European Free Trade Association (EFTA) nations joining the EEC. This research, directed by Vern Sorenson and Dale Hathaway, established a broad departmental interest in Western European agriculture and trade, which continues to draw European graduate students. Harold Riley and Vern Sorenson were more recently involved in follow-up research on the entry of Spain, Portugal and Greece into the EEC. The MSU Agricultural Model Project under Vern Sorenson's leadership has also benefited from international involvements of the department. The international component of the MSU Ag. Model is designed to capture the dynamic linkage of international markets and the U.S. agricultural economy.

The current international projects of the department are listed in Table I. There are five major project thrusts. First, the Senegal Agricultural Research and Planning Project has been a major training and institution-building activity of the department over the past five years. Second, the Food Security in Africa cooperative agreement has major research activities under way in five different countries of Africa, and constitutes the centerpiece of the department's applied research and policy analysis activities in Africa. Third, the work on employment and enterprises undertaken jointly with the Department of Economics under the leadership of Carl Liedholm continues, with a major new activity as a subcontract to a larger project on Employment and Enterprises Policy Analysis. Fourth is a major new initiative to stimulate food system leaders in developing countries, undertaken with resources from the Kellogg Foundation. Finally, a modest food system research and technical assistance activity is anticipated in Ecuador, including some training of graduate students from Ecuador.

Perhaps the most important component of our international activities is training of both foreign and U.S. graduate students for international work. The department is known as a center for excellence for graduate study in international development. Table 2 shows the composition of the department's graduate students over the past 15 years. In Table 1. Current International Research and Training Contracts

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Contract Name	Source of Funds	Contract Period	Annual Budge t	Total Budget	Countries	Key Faculty	Number of Graduate Students Supported On Field Campus Research	Graduate pported Field Research
Senegal Agricultural Research and Planning Contract	AID/Senegal	12/23/81- 12/21/87	811,667	4,870,000	Senegal	Manderscheid, Fienup, Bingen, Crawford, Ouedraogo	1 (per year)	m
Food Security in Africa Cooperative Agreement	AID/Washington & AID Missions	09/01/84- 08/23/87	1,343,333	4,030,000	Zimbabwe, Mali, Rwanda, Senegal, Somalia	Eicher, Weber, Staatz, Bernsten, Holtzman, Shaffer, Riley, Crawford	6 (per year)	و
Small Enterprises Approaches to Employment Cooperative Agreement	AID Washington & AID Missions	09/01/82- 09/30/87	240,501	1,202,507	Bangaladesh, Egypt, Zambia, Philippines, Indonesia	Liedholm, Mead	2 (per year)	t
Harvard/MSU Subcontract Agreement: Employment and Enterprise Policy Analysis	AID/Washington AID Missions Rwanda	09/30/84- 09/30/89	376,851	1,884,255	Tunisa, Rwanda	Liedholm, Mead, Minot, Smith	0	0
Kellogg International Fellowship Program in Food Systems	Kellogg Foundation	07/01/8 <i>5-</i> 06/30/89	1,110,000	4,440,000	Fellows from 23 Countries	Riley, Fienup, Shaffer, Weber	1 (per year)	0
Tentatively Approved Ecuador-Agriculture Sector Reorientation Project	AID/Ecuador	June 1986- June 1989	119,000	357,000	Ecuador	Riley, Fienup, Shaffer, Weber	o	3-4

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TABLE 2

# NUMBER OF STUDENTS OFFICIALLY ENROLLED BY REGION OR ORIGIN AND NUMBER OF COMPLETED M.S. AND PH.D. DEGREES IN AGRICULTURAL ECONOMICS (1970-1985)

5007	Officially Eachlod	Enro	Enrolled	urigin	nıg	uegrees Granted	Granted
rear	Enrolled (Fall Term)	M.S.	Ph.D.	Domestic	Foreign	M.S.	Ph.D.
1970	111	59	52			28	18
1971	112	56	56			19	13
1972	98	39	59			19	17
1973	94	35	59			13	16
1974	123	44	52			8	6
1975	126	53	73			10	21
1976	117	47	70			18	10
1977	126	57	69	77	49	24	19
1978	132	59	73	82	50	6	15
1979	122	56	66	82	40	23	13
1980	128	67	61	80	49	18	14
1981	114	55	59	68	46	23	13
1982	86	42	44	48	38	20	19
1983	89	. 46	43	55	34	24	[[
1984	112	72	40	69	43	18	7
1985	67	64	33	65	37	15*	4 7 4

\*Fall and winter terms only. Official degree lists for spring & summer '86 not yet available.

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the early 1980s a decision was taken to reduce overall enrollment by approximately 25 percent, but to maintain the historic proportion of approximately 40 percent foreign students. Of the U.S. student contingent, 20-30 percent continue to have career interests in international agricultural development.

As part of the department's general revision of the graduate program begun in 1985, the faculty recently modified the graduate courses in the field of International Agricultural Development. The aim has been to strengthen the Ph.D. program, encourage greater sequencing of courses in the department, and promote integration of international topics in all courses taught in the department. The changes have included strengthening the economics prerequisites for AEC 862 (Agriculture in Economic Development), with the senior-level undergraduate course in Agricultural Development (FSM/PAM 462) increasingly taking on the service role for other departments previously assured by AEC 862; sequencing of the two courses on cost-benefit analysis taught in the department (previously numbered AEC 811 and AEC 962); and creating a new Ph.D.-level workshop in International Agricultural Development (AEC 995). A course on rural development administration (AEC 865) that was on the books but had not been taught for several years was dropped from the program. The faculty also stipulated that Ph.D. students with a field in development also take, as part of their development requirement, at least one 900-level course from another field in agricultural economics in order to assure competence in one of the other areas of agricultural economics, such as farm management or marketing.

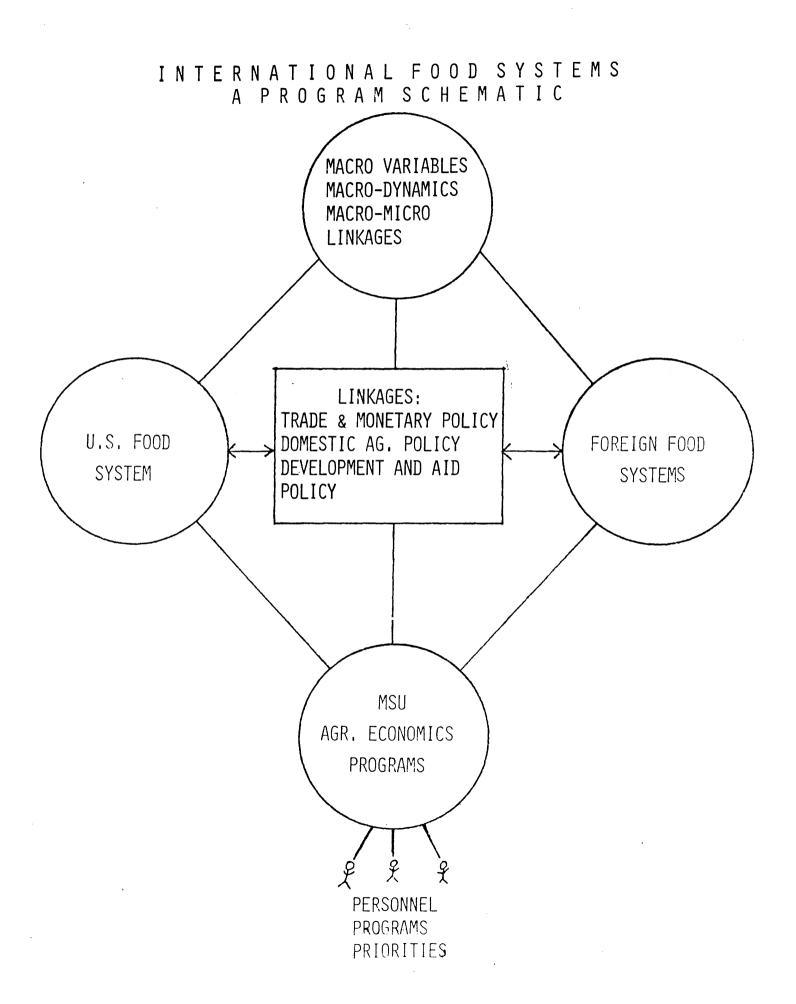
## The External Environment

As part of the department's strategic planning activities, the faculty reviewed in 1983/84 the external environment facing the international food system. The attached schematic was developed in order to show how changes in the various components of the external environment were related to one another. A summary of trends and expected changes are discussed below.

Considering first the U.S. food system and its international linkages, a number of factors led to the changes that have occurred since the early 1970s. These factors included U.S. balance of payments deficits and the erosion of the U.S. competitive position relative to Japan, Germany, Japan, etc. Also important was the loss of confidence in the dollar, which occurred when the U.S. commodity trade account went into deficit. This led the U.S. in 1971 to repudiate obligations to redeem dollars in gold and move to floating exchange rates. This, in turn, destabilized monetary and trading relations. The OPEC phenomenon caused massive redistribution of world income and created the need to recycle petrodollars. This helped drive the private banking system to become more international in its operations. The rise in inflation and inflationary expectations in the mid 1970s also led to massive lending, especially to some LDCs.

Since the early 1970s there has been a greater diversity of problems in international economic and political relations. Among high-income countries, negotiations for freer markets are central, although markets in the E.C. and Japan are still tightly controlled. The U.S. is pushing for liberalization in both industrial and agricultural trade. East-West economic relations are complicated by considerations of national security, ideology, and information monopoly. North-South relations involve many areas of concern, including, among others, trade and commodity policy, aid, industrialization, and monetary policy.

From the U.S. perspective, we can anticipate a whole set of effects on trade and on the macro-micro linkages that influence markets, production, economic efficiency, economic development, and income distribution. Although U.S. agriculture was largely



driven by the international market in the 1970s, with major growth in exports to LDCs and the socialist countries, current economic conditions suggest that growth rates will be slower for an extended future. The competitive position of U.S. agriculture continues to be affected by U.S. industrial weakness, the high interest rates of the recent past, increasing costs, and price-support policies. And LDC debt burdens will affect the capacity of those countries to import and sustain economic growth, and will have implications for their balance between aid and trade with the high-income countries.

Policy concerns for U.S. agriculture have broadened substantially from simply commodity policy. Trade policy has emerged as a major concern. Though not perceived as quickly, monetary and fiscal policy have also become important to agriculture through floating exchange rates, linkages between commodity and financial markets, and the impact of monetary and fiscal policy on interest rates and on the value of the dollar. Industrial policy and its linkages to agriculture have likewise become important. Finally, the institutional setting has changed; international capital markets and commodity markets have taken on great importance to agriculture. Also postwar institutions like the IMF and GATT have lost effectiveness. They are structured to handle single problem areas (e.g., monetary policy), but problems have become increasingly interrelated (e.g., monetary policy and trade policy). And foreign policy considerations, especially towards LDCs and the socialist countries, add a new dimension to U.S. food system policy.

Considering the foreign food systems side of the attached schematic, our review of trends and expected changes focused on development assistance to Third World countries. We expect conditions in developing countries in the 1980s to exhibit heavy debt loads, slow growth, and painful economic adjustments. There is likely to be near-stalled development in many low-income African countries and declining food output per capita. This will mean growing dependence on trade and aid.

Donor agencies are shifting towards "program" versus "project" loans to help accomplish maintenance and rehabilitation, structural adjustment, and policy and administrative reforms. Donors and many Third World governments are placing higher priority on agricultural production and food security. Overall, there was an upward trend in real DAC development assistance support over the 1970-84 period, but DAC development assistance as a percentage of donors' GNP equals only 0.36%, about half the DAC target of 0.70%. U.S. development assistance as a percentage of GNP equaled only 0.23% in 1984 (with the U.S. ranking 16 out of 17 DAC countries in this regard) and had fallen by over half since the mid 1960s.

There has been a shift in USAID program priorities from the 1970s, when the focus was on the poorest of the poor, basic needs, and rural development, towards food security in the 1980s. This calls for greater attention to agricultural policy (macro-micro linkages), institution building, training, and research. The regional emphasis will be on Africa, with some secondary attention to selected areas of Asia and Latin America.

AID-university relationships are currently comprised of Title 12 strengthening grants and memoranda of understanding, collaborative research support programs (CRSPs), specific country contract projects (e.g., Senegal), short-term technical assistance (TSMs), and cooperative agreements (research, technical assistance, and training). AID has also recently started something called the joint career corps, but it has not been pursued by faculty at the large land-grant universities.

We see opportunities for MSU agricultural economics in the 1980s to build on our past experience and track record. This will involve taking an active role in shaping opportunities that are consistent with our role as a university-based unit. These are

graduate training, research and program support, and institution building. There are a number of challenges we must continue to face in our international work. These include the need to continue to develop our staff's language capabilities and background knowledge of the countries where we work; to deal with host-country attitudes toward technical cooperation, which reflect political sensitivity and the desire for experienced advisors; and to cope with AID's bureaucratic procedures, which involve heavy up-front costs of responding to project proposals, heavy planning and reporting requirements, and rapid personnel turnover.

The following list of implications of trends and expected changes in the international food system was developed as a part of the strategic planning by the department.

- 1. There is a growing need for "internationalizing" our undergraduate and graduate teaching program, with emphasis on macro-micro linkages, development processes, and monetary and trade policy as part of food system policy.
- 2. The private sector and related public agencies are becoming more interested in our services as they assess trading opportunities in foreign markets, particularly in developing countries.
- 3. Through extension, our agricultural clientele and the public more generally will need to acquire a broader and deeper understanding of international food policy issues and alternatives, including relationships with developing countries.
- 4. We need to improve our foundation for doing effective food system policy analysis. This will include research on new conceptual and operational approaches to institutional changes that facilitate productive evolution of food systems (both U.S. and others).
- 5. The ability to successfully organize and conduct team research will become more necessary and more instrumental to the department's success as a competitor for outside funding, and as an effective problem-solving force. (This will involve inter-and intra-department teams).
- 6. There will be a continuous high level of demand for MSU Ag. Econ. graduate training of foreign students and U.S. students with strong interests in international trade and development.
- 7. There will be a wide range of opportunities for agricultural economics research, advisory services, institution building and training in developing countries, especially in Africa, but the contract terms and conditions will not always be acceptable and the tasks may not be well suited to a university. Choices will have to be made and efforts will be needed to structure and promote suitable opportunities for faculty and graduate student participation in development assistance projects.
- 8. The uncertainty of funding support for international projects, especially for oncampus, faculty-graduate student work, will require innovative administrative approaches to staffing and budget management.
- 9. A wide range of international research, teaching, extension and administrative contributions by most, if not all, of the faculty will be required, and promotion criteria must recognize (and facilitate) these diverse career development paths.

### The Internal Environment

The university began its international involvement under the leadership of former President John A. Hannah, who encouraged departments and individuals "to gain understanding and to impart knowledge" about world problems. He was especially concerned about the extension of the land-grant philosophy to developing countries. The importance of an international dimension to the university has been sustained by more recent presidents. Dean Anderson of the College of Agriculture and Natural Resources has also actively supported international activities. Thus, the administrative environment at MSU has probably been more encouraging toward international involvement than at most land-grant universities. The administration has encouraged faculty members to seek research and advisory grants and contracts and has set up administrative mechanisms to manage the funds.

Early department involvement in international activities was accomplished by drawing faculty members with established domestic credentials into international projects on a part-time or temporary basis. As international projects and foreign-student training became a more important part of departmental activities, the department recruited several tenure-stream faculty with predominantly international career interests.

Since 1975 there have been three retirements (Larry Witt, Warren Vincent and Garland Wood) and three resignations (George Rossmiller, Kelly Harrison and Derek Byerlee) of tenure-system faculty who were heavily committed to international activities of the department. Over the next five years four additional senior professors with long-term international interests will probably be retiring -- Glenn Johnson, Harold Riley, James Shaffer, and Vern Sorenson.

Starting in 1979 the department began hiring new tenure-system faculty to maintain strength in the international area. In 1981 a special effort went forward to obtain two additional tenure-system faculty to be hired with salaries to be paid primarily from grant and contract funds. Since 1979, a total of five tenure-system faculty with international emphases have been hired: Eric Crawford, Mike Weber, John Staatz, Rick Bernsten, and Robert Myers.

The department has a long-standing philosophy that graduate-student thesis research supervision should be rigorous and intensive. We have placed high priority on overseas research involving practical problems for students with agricultural development interests (both U.S. and foreign). AID grants and contracts have provided a major source of funding to make possible full or partial research support for the student and his or her research supervisor. This philosophy of graduate research supervision of foreign research topics has been a major factor in generating this department's reputation as a center of excellence for graduate study in international agricultural development.

Research output is another important dimension of the department's international involvement. A major research publication program has been developed around the MSU International Development Paper publication series. The papers mainly convey the research findings of MSU faculty and visiting scholars, although a few papers by outside researchers and policy makers who are working with MSU scholars on research and action programs in the field are also published. Publications in the Papers series are reviewed by a minimum of two outside reviewers, and working papers are reviewed internally. (See attached order list for the two sets of papers.)

The costs of sustaining this level of international commitment are substantial both for the department and for faculty members with international interests. Sizable amounts of faculty time are necessary to prepare proposals and negotiate agreements. Both the state legislature and the university administration have been unwilling to commit state appropriations to support those project development costs explicitly. Overhead collected on university contracts is still largely retained by the university administration for general expenditures, while the department and individual faculty bear most of the risk.

The costs for individual faculty members include the opportunity cost for faculty time with professional alternatives at the World Bank, AID, etc.; the relatively high cost involved in negotiating and administering grants and contracts; the special problems of conducting overseas research, such as investment in data collection, the personal costs of heavy travel schedules (being away from families, etc.), and the extra work load imposed by supervision of a large number of graduate students. At the same time we need to continue improving the university reward system so that it fully recognizes individual faculty contributions in international activities, thus making international career involvement a fundamental part of the university. While faculty evaluation and rewards is a difficult issue even for domestic oriented faculty, the problem is compounded for faculty whose major clientele groups (aside from students) are international donor agencies and foreign institutions.

## Issues for the Future

We would especially appreciate advice and counsel from members of the evaluation team on the following issues:

- 1. The department has made considerable progress over the past five years in integrating domestic and international activities, especially in the marketing, trade, policy and rural development areas. Is greater integration desirable and feasible? If so, what should be done to achieve greater integration? Is it realistic and desirable to call for all faculty to have some international involvement?
- 2. With the large cooperative agreement projects, especially the "Food Security in Africa" activity, there are fewer individual faculty initiatives. Team efforts are clearly required to compete for and successfully implement large research projects. But some degree of individual entrepreneurship is also desirable. What adjustments in the balance might be desirable?
- 3. Although AID funds are generally available to carry out in-country research, they have become increasingly scarce to support on-campus work, including the costs of maintaining a cadre of faculty with competence in the international development area. What alternatives should the department consider to develop core funding to support its on-campus activities in international development?
- 4. What changes, if any are needed in the department's international teaching and graduate student development programs? For example:
  - a. What are the tradeoffs between offering specialized international courses versus incorporating an international component in all our graduate-level courses, and what balance should the department seek in this regard?
  - b. Should the department develop a course on export marketing and export promotion?

- c. What role should the department play in providing service courses in the international area to other departments, especially within the College of Agriculture and National Resources? A heavy role in this area may reduce resources available for advanced graduate courses in the international area.
- d. Should the department devote resources to rebuilding its former competence in the area of agricultural sector analysis?
- 5. Progress has been made in developing the International Development Paper series as an outlet for publication of our research results in the international area. What other steps should be taken to foster broader publication of our research findings?
- 6. What changes, if any, are needed in the department's administrative/organizational structure to support and direct international activities more effectively?
- 7. What, if any, improvements are needed in risk-sharing mechanisms between the Department, College, and University?

	MSU International Development Papers (IDP's)	Unit Cost	Quantity	Total Cost
1.	"Research on Agricultural Development in Sub-Saharan Africa: A Critical Survey," by Carl K. Eicher and Doyle C. Baker, 1982 (346 pp.).	\$8.00		<u>\$</u>
1 <b>F.</b>	"Etude critique de la recherche sur le developpement agricole en Afrique subsaharienne," par Carl K. Eicher et Doyle C. Baker, 1985 (435 pp.).	\$10.00		<u>\$</u>
2.	"A Simulation Study of Constraints on Traditional Farming Systems in Northern Nigeria," by Eric W. Crawford, 1982 (136 pp.).	\$5.00		<u>\$</u>
3.	"Farming Systems Research in Eastern Africa: The Experience of CIMMYT and Some National Agricultural Research Services, 1976-81," by M.P. Collinson, 1982 (67 pp.).	\$4.00		<u>\$</u>
4.	"Animal Traction in Eastern Upper Volta: A Technical, Economic and Institutional Analysis," by Vincent Barrett, Gregory Lassiter, David Wilcock, Doyle Baker and Eric Crawford, 1982 (132 pp.).	\$5.00		<u>\$</u>
5.	"Socio-Economic Determinants of Food Consumption and Production in Rural Sierra Leone: Application of an Agricultural Household Model with Several Commodities," by John Strauss, 1983 (91 pp.).	\$5.00	Out of Print	
6.	"Applications of Decision Theory and the Measurement of Attitudes Towards Risk in Farm Management Research in Industrialized and Third World Settings," by Beverly Fleisher and Lindon J. Robison, 1985 (106 pp.).	\$5.00		<u>\$</u>
l.	MSU International Development Working Papers (WP's) "Farming Systems Research (FSR) in Honduras, 1977-81: A Case Study," by Daniel Galt, Alvaro Diaz, Mario Contreras, Frank Peairs, Joshua Posner and Franklin Rosales, 1982 (48 pp.).	Free	Out of Print	
2.	Rosales, 1982 (48 pp.). "Credit Agricole et Credit Informel dans le Region Orientale de Haute-Volta: Analyse Economique, Performance Institutionnelle et Implications en Matiere de Politique de Developpement Agricole," by Edouard K. Tapsoba, 1982 (125 pp.).	Free	Out of Print	
3.	"Employment and Construction: Multicountry Estimates of Costs and Substitution Elasticities for Small Dwellings," by W.P. Strassmann, 1982 (48 pp.).	Free	Out of Print	
4.	"Sub-contracting in Rural Areas of Thailand," by Donald C. Mead, 1982 (52 pp.).	Free	Out of Print	
5.	"Microcomputers and Programmable Calculators for Agricultural Research in Develop- ing Countries," by Michael T. Weber, James Pease, Warren Vincent, Eric W. Crawford and Thomas Stilwell, 1983 (113 pp.).	\$5.00		<u>\$</u>
6.	"Periodicals for Microcomputers: An Annotated Bibliography," by Thomas Stilwell, 1983 (70 pp.).	\$4.00	See IDWP #21	
7.	"Employment and Housing in Lima, Peru," by W. Paul Strassmann, 1983 (96 pp.).	Free	Out of Print	
8.	"Faire Face a la Crise Alimentaire de l'Afrique," by Carl K. Eicher, 1983 (29 pp.).	Free	. <u></u>	
9.	"Software Directories for Microcomputers: An Annotated Bibliography," by Thomas C. Stilwell, 1983 (14 pp.).	\$3.00	See IDWP #22	
10.	"Instructional Aids for Teaching How to Use the TI-59 Programmable Calculator," by Ralph E. Hepp, 1983 (133 pp.).	\$5.00	Out of Print	

	MSU International Development Working Papers (WP's) - Continued	Unit Cost	Quantity	Totai Cost	
1.	"Programmable Calculator (TI-59) Programs for Marketing and Price Analysis in Third World Countries," by Michael L. Morris and Michael T. Weber, 1983 (105 pp.).	\$5.00	Out of Print		
2.	"An Annotated Directory of Statistical and Related Microcomputer Software for Socioeconomic Data Analysis," by Valerie Kelly, Robert D. Stevens, Thomas Stilwell, and Michael T. Weber, 1983 (165 pp.).	\$7.00		<u>\$</u>	
3.	"Guidelines for Selection of Microcomputer Hardware," by Chris Wolf, 1983 (90 pp.).	\$5.00		<u>\$</u>	
4.	"User's Guide to BENCOS—A SuperCalc Template for Benefit-Cost Analysis," by Eric W. Crawford, Ting-Ing Ho, and A. Allan Schmid, 1984 (35 pp.).	\$3.00		<u>\$</u>	
	Copy of BENCOS Template in IBM PC-DOS 1.1 Format, on single sided double density diskette (readable on most MS-DOS systems).	\$15.00		<u>\$</u>	
5.	"An Evaluation of Selected Microcomputer Statistical Programs," by James W. Pease and Raoul Lepage with Valerie Kelly, Rita Laker-Ojok, Brian Thelen, and Paul Wolberg, 1984 (187 pp.).	\$7.00		<u>\$</u>	
6.	"Small Enterprises in Egypt: A Study of Two Governorates," by Stephen Davies, James Seale, Donald C. Mead, Mahmoud Badr, Nadia El Sheikh, and Abdel Rahman Saidi, 1984 (100 pp.).	\$5.00		\$	
7.	"Microcomputer Statistical Packages for Agricultural Research," by Thomas C. Stilwell, 1984 (23 pp.).	\$3.00		. <u>\$</u>	
3.	"An Annotated Directory of Citation Database, Educational, System Diagnostics and Other Miscellaneous Microcomputer Software of Potential Use to Agricultural Scientists in Developing Countries," by Thomas C. Stilwell and P. Jordan Smith, 1984 (34 pp.).	\$3.00		<u>\$</u>	
€.	"Irrigation in Southern Africa: An Annotated Bibliography," by Amalia Rinaldi, 1985 (60 pp.).	\$4.00		<u>\$</u>	
).	"A Microcomputer Based Planning and Budgeting System for Agricultural Research Programs," by Daniel C. Goodman, Jr., Thomas C. Stilwell, and P. Jordan Smith, 1985 (75 pp.).	\$5.00		<u>\$</u>	
ι.	"Periodicals for Microcomputers: An Annotated Bibliography," Second Edition, by Thomas C. Stilwell, 1985 (89 pp.).	\$5.00		<u>\$</u>	
2.	"Software Directories for Microcomputers: An Annotated Bibliography," Second Edition, by Thomas C. Stilwell, 1985 (21 pp.).	\$3.00		<u>\$</u>	
3.	"A Diagnostic Prescriptive Assessment of the Production and Marketing System for Mangoes in the Eastern Caribbean," by Alan Hrapsky with Michael Weber and Harold Riley, 1985 (106 pp.).	\$5.00		<u>\$</u>	
4.	"Subcontracting Systems and Assistance Programs: Opportunities for Intervention," by Donald C. Mead, 1985 (32 pp.).	\$3.00		<u>\$</u>	
5.	"Small Scale Enterprise Credit Schemes: Administrative Costs and the Role of Inventory Norms," by Carl Liedholm, 1985 (23 pp.).	\$3.00		<u>\$</u>	
•	"Subsector Analysis: Its Nature, Conduct and Potential Contribution to Small Enterprise Development," by James J. Boomgard, Stephen P. Davies, Steve Haggblade, and Donald C. Mead, 1986 (57 pp.).	\$4.00		<u>\$</u>	
•	"The Effect of Policy and Policy Reforms on Non-Agricultural Enterprises and Employment in Developing Countries: A Review of Past Experiences," by Steve Haggblade, Carl Liedholm, and Donald C. Mead, 1986 (133 pp.).	\$5.00		<u>\$</u>	

	MSU International Development Working Papers (WP's) - Continued	Unit Cost Quantity	Total Cost
28.	"Rural Small Scale Enterprises in Zambia: Results of a 1985 Country-Wide Survey," by John T. Milimo and Yacob Fisseha, 1986 (76 pp.).	\$5.00	<u>\$</u>
29.	"Fundamentals of Price Analysis in Developing Countries' Food Systems: A Training Manual to Accompany the Microcomputer Software Program 'MSTAT," by Stephan Goetz and Michael T. Weber, 1986 (148 pp.).		<u>\$</u>
book	price of each paper includes the cost of rate postage in the United States surface rate postage overseas.	Sub-Total Less 10% for orders of 10 or more sale copies	<u>\$</u>
for a	der to receive the papers by <u>airmail</u> , there is a postage charge <u>per paper</u> Il recipients, including individuals and institutions in the Third World	Unit <u>Cost</u> <u>Quantity</u>	
and	USAID officials. Domestic Airmail Postage per Paper	\$2.00	<u>\$</u>
	International Airmail Postage per Paper	\$5.00	<u>\$</u>
	·	Total Amount	<u>\$</u>

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