ALTERNATIVE RURAL DEVELOPMENT STRATEGIES PROJECT

Department of Agricultural Economics Michigan State University

BACKGROUND

The Alternative Rural Development Strategies Cooperative Agreement (Strategies) with Michigan State University (MSU) became effective on September 26, 1977. Grant funds were approved for \$802,000 of which \$469,000 were obligated to initiate activities. A total of 100 person-months of professional services and approximately 50 person-months of services of graduate research assistants were to be provided over the four-year life of the project. Dr. Carl Eicher was named project manager for MSU with Dr. Benedict Stavis as principal resource person. AID's contribution to the project included the assignment of a technical representative to the project. Tom Mehen was given the responsibility and was expected to dedicate 25 percent of his time to the project.

The objective of the project as stated in the Cooperative Agreement between AID and MSU was "to enhance the ability of LDC institutions and AID Missions to develop and implement national and regional rural development strategies, policies, and programs that promote increased productivity, income, and welfare of the rural poor."

The five major activities of the Strategies project were: (a) consulting services to AID Missions and LDC institutions in countries which are undertaking major rural development efforts, (b) applied research on alternative strategies of rural development, (c) publications, including a state-of-the-art paper (SOAP) on alternative rural development strategies in historical perspective, (d) networking, and (e) international dissemination of the project outputs through seminars, workshops, and conferences.

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The Agreement also described in detail the specific activities that were to be conducted by MSU in four 12-month periods. MSU responded by presenting in March 1978 a Task Timetable which included a timetable of activities. The Task Timetable served to orient the project but over the course of time it was altered to meet changing circumstances and needs. One event that affected the thrust of "Strategies" was the change in the leadership in Rural Development Offices. The project was originally designed and approved by an office director who accepted an overseas assignment during the first year of implementation. He emphasized assistance to Missions on macro strategies, seminars, and case studies of innovative rural development programs, "including a series of papers on rural development strategies in China and implementations for LDCs and donors." His successor emphasized the provision of consulting services to AID Missions and to carry out applied research in support of the preparation of PIDs, PPs, etc. The March 1978 work plan, however, was presented half way through the first year of the project after many of the activities were already in motion and it was never approved by DS/RAD.

In January 1979, the MSU 'Strategies' group put together a revised framework for carrying out applied research in a strategic context that was approved by DS/RAD. In summary, it focuses on: (a) the efficiency and equity effects of alternative production packages and rural institutions; (b) analysis of alternative production, consumption, and nutrition linkages; and (c) examination of alternative rural marketing systems for serving small farmers. In addition, Haiti was identified as one site for in-depth applied research and the MSU team initiated work there in June concentrating on items (a) and (b) of the framework mentioned above.

An internal evaluation of the 'Strategies' project was completed in March 1979 covering the period September 1977 through December 1978. The

summary findings state that the project was "making progress after a slow start and implementation should proceed at a more rapid pace towards meeting the project's purpose." Having agreed upon the work plan submitted in January 1979, MSU was able to respond to Mission requests for consultancies in Thailand, Sudan, Haiti, Cameroun, Botswana, and Senegal during 1979.

Summary of Outputs: Years, 1, 2, and 3

Consulting Services

Following the acceptance of the work plan in January 1979, MSU dramatically increased the volume of consulting services to Missions as shown in Annex A. In FY 1980, for example, the Strategies group provided 225 person-weeks of consulting services to Missions and applied research activities as compared with 78 person-weeks in FY 79.

In Haiti, the Strategies group assisted the Mission on four consultations in FY 79. The purpose of the consultancies was to develop an integrated set of projects which could improve agricultural statistics, collect micro-economic data through farm level surveys in AID target zones, and gain a better understanding of production, marketing consumption, and nutrition linkages as a foundation for rural development and nutrition projects. The applied research effort was not realized, however, because of the lack of host country commitment to socio-economic studies in rural areas.

In FY 80, the Strategies Group prepared a major background paper for AID's Mandara Mountain Project in northern Cameroun. The Strategies Group also provided a five-member team to assist USAID/Bolivia and the GOB prepare a \$10 million Integrated Agricultural Extension and Applied Research Project. The project paper incorporated three levels of intensity of farming systems research (FSR) in order to generate technology which was appropriate to the resource

endowments in the three pilot provinces and to the ability of the GOB to finance and staff FSR after the AID project was completed.

In FY 80, the Strategies Group drew heavily on its experience in Bolivia and provided a five-member team to assist USAID/REDSO/Nairobi and USAID/Zambia prepare a \$12 million Integrated Agricultural Research and Extension Project Paper. The PP outlines a process of strengthening both Zambia's agricultural extension and research systems through an integrated approach to farming systems and commodity research. The Zambia PP was approved in August 1980. Both the Bolivia and Zambia PP Missions were financed through \$90,000 of Mission-funded amendments to the Strategies Agreement.

Applied Research

The focus of applied research is on farming and marketing systems and nutrition interactions. The approach is micro and inter-disciplinary. The objective of applied research is to develop an information system for designing projects, programs, and strategies which can help small farmers and the rural poor.

In FY 79 and 80, the Strategies Project initiated and carried out applied research in Thailand and the Cameroun.

Thailand -- The Strategies applied research underway in north and northeast Thailand focuses on the equity and efficiency effects of alternative marketing systems for small rural households and firms. This work is being completed as an integral part of the Thailand Off-Farm Rural Employment Assessment Project, which is a joint undertaking by DS/RAD cooperators at The Ohio State and Michigan State University. The Strategies applied research effort is designed to help the overall project identify alternative marketing policies which provide incentives for small rural households to expand output, productivity, and rural employment. An MSU agricultural economist is spending 18 months in Thailand

under core funding from the strategies and off-farm projects. The Strategies researcher is carrying out a study of the product marketing aspects of the farm households; farmer-first handler relationships, and middlemen processor coordination arrangements. An important aspect of this study will involve the analysis of the market potential and marketing problems for fruit and vegetables which are produced by small farmers under multiple cropping arrangements. The integration of farming and marketing systems is an important analytical contribution to our understanding of how to design <u>coordinated</u> interventions in production and marketing systems in support of small farmers. The salaries of Thai counterparts, and the cost of data collection, processing, and publication, are provided by \$396,000 of Mission funding. The Strategies contract is also providing the services of short-term consultants to backstop the marketing researchers and other members of the off-farm research team. The data collection will be completed in March 1981.

Cameroun -- In the Cameroun, the Strategies Project is carrying out four interrelated activities through \$490,000 of Mission-funded amendments to the Strategies contract. First, short-term studies of farming systems, marketing, nutrition, and land tenure are being carried out in the Mandara Mountains through a \$360,000 Mission-funded amendment to the Strategies Project. These studies will provide the knowledge base for the preparation of a \$13 million PID for an Integrated Agricultural Research and Extension Project in the Mandara Mountains and information for the preparation of the PP. Second, the Strategies Group will prepare a Project Paper for the Mandara Mountains in March of 1981 through a \$84,000 Mission amendment to the Strategies Project. Third, an applied research team is carrying out a 12-month study of farming and marketing systems in the Mandara Mountains in order to compare the economies of present and proposed intervention in the farming and marketing systems in the Mandara Mountains. This

information will contribute to our knowledge of methodologies for carrying out FSR and information which can be used by the team implementing the project over the 1981-86 period. Fourth, the Strategies Group is also carrying out a one-year evaluation of the Farmer Training Program in northern Cameroun through a \$46,000 MSU contract.

Publications

The Strategies Group published 13 papers and completed 18 unpublished papers in the first three years of the contract as shown in Annex B. The paper entitled <u>Farming Systems Research Approach: Relevancy for the Small Farmer</u> by David Norman has been widely circulated and cited. It is being translated into French and Spanish.

Scope of Work: Year 4 (September 1980-September 1981)

Joe Beausoleil was assigned project manager as of March 1980 and Tom Mehen now backstops the project. Key personnel of the project include Carl K. Eicher, Project Director, Mike Weber, Deputy Director, Tom Zalla, Ben Stavis, Eric Crawford, Warren Vincent (effective March 1981), and David Norman, Kansas State University (consultant for two months per year).

During the past two years, it has become increasingly clear that the Strategies Project is delivering a variety of services which are in strong demand by field Missions. For example, the farming systems specialists in the Strategies Group are in constant demand by Missions, requests are growing for translation of farming systems papers in Spanish and French, and there are working links between the Strategies Group and DSB/AGR and DSB/nutrition.

Because of increased demand for the services of the project, core funding was increased by \$285,000 to carry the project through its fourth year at a more

intense level of activities than was originally contemplated. Instead of winding down the project in the fourth year, MSU will be able to continue consulting activities to Missions, complete applied research activities in the Cameroun and Thailand, publication of results, and translation of key publications on farming systems into French and Spanish.

The following outputs will be delivered during the fourth year of the project:

- (1) Consulting Services -- USAID Missions in Zambia, Cameroun, and Upper Volta have requested services. It is anticipated that the Strategies Group will provide assistance to 3-5 Missions in FY 81.
- (2) Applied Research -- Applied research will be completed in Thailand and the Cameroun. In addition, USAID/Zambia has requested the Strategies Group to assist in developing a scope of work for special studies of the agricultural sector. Requests for applied research are on hand from USAID/Ecuador, Government of Peru, and CATIE in Costa Rica.

(3) Publications

A major SOAP on Farming Systems Research by Elon Gilbert, David Norman, and Fred Winch will be published in October 1980 and translated into French and Spanish later in the year. Papers on Farming Systems Research by Michael Collinson of CIMMYT, Nairobi, Warren Vincent, and David Norman will be completed during the year. Work will continue on two books and other manuscripts in preparation as shown in Annex B.

Training

Two training activities will be carried out. The first is the dissemination of the results of the major SOAP on Farming Systems. The results of applied research and publications on farming systems research will be disseminated through a series of short seminars for AID officers in various bureaus in Washington and field Missions. These seminars will be developed in cooperation with DSB/AGR and the regional bureaus.

The second training activity will focus on methodology for rapid collection and processing of data from rural surveys with emphasis on new technologies such as micro-computers, programmable hand calculators, etc. The Farm Management Branch of FAO, Rome has requested the Strategies Group to cooperate in holding a seminar in May 1981 on "The Role of Micro-Computers in Rapid Data Collection and Processing."

Scope of Work: Project Extension

By this amendment additional work will be carried out in two phases over the 30-month period--September 1981-March 1984.

Phase I -- September 1981-September 1983

Phase I activities represent an extension of the present contract in order to enable MSU to maintain the momentum and continuity of work on designing alternative farming and marketing systems to support a growth/equity strategy of rural development. The demand for consulting services will continue to increase as Missions request help in generating the micro data to design effective farming and marketing systems research and for integrated rural development projects. In light of MSU's faculty expertise, library holdings, and institutional linkages in Africa, MSU will devote at least half of its consulting and applied research activities to Africa and one-half to the other regions.

Analytical work during this period will focus on the following topics:

- (1) Conceptualization of animal and cropping systems linkages
- (2) Conceptualization and field testing of approaches to the analysis of linkages between production, marketing, consumption, and nutrition

- (3) Methodology for undertaking farming and marketing systems research in different ecological zones
- (4) Cost effectiveness of farming systems research

Phase I activities over 24 months will include:

- (1) Consulting Services -- Consulting services will be provided to 3-5 Missions each year. The countries will be identified by the DS/RAD project manager in consultation with Regional Bureaus and Missions.
- (2) Applied Research -- Applied research will be undertaken in one country per year. Tentative countries for in-depth research include Zambia, Ecuador, and Upper Volta. The final selection of the country for in-depth consulting and applied research will be undertaken in consultation with the Regional Bureau, Mission, appropriate government agencies, and the DS/RAD project manager. The cost of in-depth research will be met by the Mission.
- (3) Analytical Work -- Analytical work will focus on the following activities:
 - (a) Micro/Macro Linkages -- Farming and marketing systems research must be supplemented with research at the macro level.

 Attention will be given to developing a cooperative working relationship with the macro research underway by the DS/AGR-funded CRIES project at MSU. The proposed link between the Strategies and CRIES groups is of keen interest to DSB/AGR.
 - (b) Production/Marketing/Consumption/Nutritional Linkages -- This activity is of interest to DS/RAD, DS/AGR, and DS/N. Since the ultimate goal of production is consumption, it is important to pursue research on the nutritional implications of alternative farming systems. A farming system which promotes a diversity in

diets through vegetable gardens and small ruminant production may be a more effective way to improve the nutrition of poor farmers and the landless rather than through the traditional method of encouraging farmers to expand the sale of cash crops. Two analytical papers will be produced on production/consumption/nutrition linkages during the 24-month period. This work will draw heavily on Sarah Lynch's study (see Annex B), David Trechter's 1980 nutrition survey in the Mandara Mountains in the Cameroun, and Tom Zalla's research on nutritional status of small dairy and coffee producers in northern Tanzania.

- (c) Conceptualization of Cropping and Livestock Systems -- There are relatively strong demand prospects for dairy and livestock products in the Third World. Dairying and livestock are potentially attractive enterprises for small farmers. However, little analytical work has been done on the integration of cropping and livestock systems. Two analytical papers will be prepared on cropping and livestock systems with emphasis on small farmers including dairying and livestock fattening. In addition, strategies research on small ruminants in the Cameroun will be expanded to cover at least one additional country.
- (d) Cost Effectiveness of Farming Systems Research -- The B/C of farming systems research is unknown at present. There is a need for a comparative study of the cost effectiveness of farming systems research and commodity (experiment station-oriented) research. It is hypothesized that farming systems research and commodity research are complementary because farming systems research can enhance the B/C ratio of commodity research by

channeling small farmers' research needs into the determination of commodity research priorities.

Likewise, it is hypothesized that the B/C ratio of farming systems research will be enhanced through a close working link with commodity research because the knowledge generated in commodity experiment stations can be more effectively transmitted to small farmers through site-specific farming systems research. David Norman, consultant to the Strategies Project, will prepare a paper on the cost effectiveness of farming systems research and commodity research.

- (e) Marketing Systems -- Two analytical papers on the efficiency and equity effects of alternative farming and marketing systems will be produced during Phase II by drawing on the work of anthropologists and agricultural economists under this project. The combined inputs of anthropologists and economists will focus on how marketing projects can contribute to the objectives of rural development projects.
- (f) Extension-Research Linkages -- The critical linkage between extension and research can be tested through case studies of the cost effectiveness of alternative extension approaches to reaching small farmers and traders. Two analytical papers on alternative extension systems for poor farmers and extension-research linkage will be produced during this phase. One paper will be a comparative study of farmer training centers in Mali, the Cameroun, and Zambia. The topic of the second will be identified and agreed upon after consultation with Regional Bureaus and the DS/RAD project manager.

A total of \$1,069,046 would be required to carry out the scope of work for an additional 30 months:

	Year 1 (12 mos.)	Year 2 (12 mos.)	Year 3 (6 mos.)	
Salaries & Benefits	\$216,846	\$237,602	\$127,260	
Travel	29,151	32,038	4,731	
Other Direct Costs	53,443	53,539	25,064	
Indirect (Overhead)	110,480	119,212	59,680	
Subtotal	\$409,920	\$442,391	\$216,735	
TOTAL				\$1,069,046

ANNEX A

CONSULTING SERVICES PROVIDED TO USAID MISSIONS BY THE ALTERNATIVE RURAL DEVELOPMENT STRATEGIES CONTRACT, OCTOBER 1977-SEPTEMBER 1980

Country	Name of Consultant	Period	Work Request
Philippines	Warren Vincent	10/1-31/77	Discussed farming systems research with mission and GOP officials
Jamaica	Herbert Kriesel	3/1-22/78	Discussed applied research & special studies needed to prepare an "Interim agricultural assessment"
Jamaica	Herbert Kriesel	4/10-17/78	Reviewed draft plan of work for applied research to generate data base for an interim ag sector assessment
Sudan Upper Volta	Carl Eicher	4/19-5/10/78	a) Sudan - Prepared background paper for a PID, "Rural Planning Support"b) Upper Volta - Reviewed draft CDSS
Sudan Kenya	Herbert Kriesel	4/14-5/5/78	 a) Sudan - Prepared background paper for applied research PP b) Kenya - Reviewed missions portfolio in agriculture and possible assistance by strategies project
Haiti	Carl Eicher	9/24-30/78	Assisted USAID officials in preparing a report, "Improving Agricultural Statistics and Rural Economic Surveys in Haiti"
Haiti	Tom Zalla	9/24-30/78	Same as above
Haiti	Tom Zalla	12/10-17/78	Developed preliminary plan of work for applied research
Haiti	Carl Eicher	12/10-20/78	Same as above
Haiti	Tom Zalla	3/3-30/79	Completed detailed plan of work for farm level applied research
Haiti	Carl Eicher	3/17-4/2/78	Same as above
Haiti	Steve Franzel	3/17-4/2/78	Same as above
Thailand*	Michael Weber	3/28-4/7/79	Worked with USAID and RTG officials to incorporate agricultural marketing dimensions into the planned off-farm rural employment assessment project in Thailand

ANNEX A (continued)

Country	Name of Consultant	Period	Work Request
Haiti	Ted Ahlers	7/7-22/79	Negotiate a final plan of work for the applied research project and brief Dr. Ahlers as prospective in-country team leader
Haiti	Carl Eicher	7/10-14/79	Same as above
Haiti	Tom Zalla	7/10-18/79	Same as above
Cameroun and DS/RAD	Michael Weber	7/10-28/79	Assisted DS/RAD team prepare plan of work for applied marketing research for the North West Province
Cameroun DS/RAD	John Staatz	6/28-7/28/79	Same as above
Thailand*	Michael Weber	8/5-23/79	Completed preliminary design of the applied research to be carried out as a "Strategies" activity under the Off-Farm Employment Assessment Project
Cameroun	Carl Eicher	8/31-9/27/79	Assisted mission in preparing a project identi- fication document (PID) for the Mandara Mountain Area Development
Cameroun	Doyle Baker	8/31-9/26/79	Same as above
Cameroun	Pascal Fotzo	8/31-9/22/79	Same as above
Cameroun	Benedict Stavis	9/2-11/2/79	Same as above: and developed the methodology and scope of work for an evaluation of a farmer training program
Cameroun	James Bingen	10/9-27/79	Same as above
Botswana	Carl Eicher	9/29-10/29/79	Prepared background memo for a mission PID on Farming Systems
Cameroun	David Campbell	2/14-24/80	Assisted the USAID Mission in planning activities for the start-up of applied research in the Mandara Mountains
Cameroun	Tom Zalla	2/14-3/4/80	Same as above
Thailand*	Michael Weber	3/4-19/80	Consulted with stategies field researcher and designed special studies to diagnose problems of output marketing and input procurement of selected rural firms and households
Thailand*	Don Larson	3/4-19/80	Same as above

ANNEX A (continued)

Country	Name of Consultant	Period	Work Request
Bolivia	Michael Weber	5/12-21/80	Assisted USAID Mission and GOB officials in developing a scope of work for a Project Paper on Agricultural Extension and Applied Research
Bolivia	Manfred Thullen	5/12-21/80	Same as above
Thailand*	James Shaffer	5/12-26/80	Assisted "Strategies" and "Off-Farm" field re- searchers design marketing studies for both farm and non-farm firms
Cameroun	James Bingen	6/15-26/80	Reviewed the Cameroun farmer training project with officials of the International Union for Child Welfare
Cameroun	Eric Crawford	6/6-25/80	Worked with Strategies field research team in designing and launching the intensive survey of Mandara farming systems
Cameroun	Tjaart Schillhorn	6/8-24/80	Assisted the Strategies field team in assessing livestock production possibilities, disease, feeding, and other constraints on livestock production in the Mandara Mountains
Bolivia	Michael Weber	6/4-27/80	Assisted USAID and GOB officials in completing a Project Paper on Integrated Agricultural Extension and Applied Research
Bolivia	Daniel Galt	6/4-29/80	Same as above
Bolivia	Felipe Korzenny	6/11-28/80	Same as above
Bolivia	Carl Eicher	6/11-29/80	Same as above
Bolivia	John Hatch	6/10-29/80	Same as above
Zambia	David Norman	6/20-7/20/80	Assisted USAID and GOZ officials in preparation of a Project Paper on Agricultural Research and Extension
Zambia	George Dike	6/20-7/20/80	Same as above
Zambia	Michael Bratton	6/20-7/20/80	Assisted USAID and GOZ officials in preparation of a Project Paper on Agricultural Research and Extension
Zambia	Carl Eicher	6/5-7/21/80	Same as above
Zambia	Niels Roling	6/29-7/13/80	Same as above

ANNEX A (continued)

Country	Name of Consultant	Period	Work Request
Cameroun	Michael Weber	8/15-31/80	Assisted USAID Officials and Strategies field team members in completion of a PID for the Mandara Mountain Area Development Project
Cameroun	Carl Eicher	8/27-9/10/80	Same as above
Cameroun	Russel Frazier	9/27-10/10/80	Completed an assessment of agronomic and soil fertility constraints in the Mandara Mountain farming systems
Cameroun	Dawit Deguefu	9/27-10/10/80	Same as above
Cameroun	Tom Zalla	9/25-10/20/80	Collaborated with soil scientist and agronomist to assess relationships between economic and physical resources constraints on the farming systems of the Mandara Mountains

^{*}Consultancies carried out in cooperation with Off-Farm Rural Employment Project of MSU.

Annex B. Publications and Reports

Published Reports

- 1. Akhter Hameed Khan, "Ten Decades of Rural Development: Lessons from India," MSU Rural Development Paper No. 1, 1978.
- 2. Lane E. Holdcroft, "The Rise and Fall of Community Development in Developing Countries, 1950-1965: A Critical Analysis and an Annotated Bibliography," MSU Rural Development Paper No. 2, 1978.
- 3. James E. Kocher and Beverly Fleisher, "A Bibliography on Rural Development in Tanzania," MSU Rural Development Paper No. 3, 1979.
- 4. Benedict Stavis, "Turning Point in China's Agricultural Policy," MSU Rural Development Working Paper No. 1, 1979.
- 5. Benedict Stavis, "Agricultural Extension for Small Farmers," MSU Rural Development Working Paper No. 3, 1979.
- 6. Peter Riley and Michael T. Weber, "Food and Agricultural Marketing in Developing Countries: An Annotated Bibliography of Doctoral Research in the Social Sciences, 1969-79," MSU Rural Development Working Paper No. 5, 1979.
- 7. Harold M. Riley and Michael T. Weber, "Marketing in Developing Countries," MSU Rural Development Working Paper No. 6, 1979.
- 8. David W. Norman, "The Farming Systems Approach: Relevancy for the Small Farmer," MSU Rural Development Paper No. 5, 1980.*
- 9. Elon H. Gilbert, David W. Norman, and Fred E. Winch, "Farming Systems Research: A Critical Appraisal," MSU Rural Development Paper No. 6, 1980.*
- 10. Michael T. Weber and Roger Fox, "Micro-Level Research on Rural Marketing Systems," Contributed Paper Read at the 17th International Conference of Agricultural Economists. Oxford, England: University of Oxford Institute of Agricultural Economics for the International Association of Agricultural Economists, 1980.
- 11. John Hatch, "A Record Keeping System for Rural Households," MSU Rural Development Working Paper No. 9, 1980.
- 12. Sarah Lynch, "An Analysis of Interview Frequency and Reference Period in Rural Consumption Expenditure Surveys: A Case Study from Sierra Leone," MSU Rural Development Working Paper No. 10, 1980.
- 13. John Holtzman, John Staatz, and Michael Weber, "An Analysis of the Livestock Production and Marketing Subsystem in the Northwest Province of Cameroun," MSU Rural Development Working Paper No. 11, 1980.

^{*}Available in French and Spanish.

Unpublished Papers

- 1. Carl K. Eicher, Herbert Kriesel, and Tom Mehen, PID, "Rural Planning Support," prepared for USAID Mission, Khartoum, June 13, 1978.
- 2. Carl K. Eicher and Tom Zalla, "Improving Agricultural Statistics and Rural Economic Surveys in Haiti," report prepared for USAID Mission in Haiti, December 28, 1978.
- 3. Benedict Stavis, "Dilemmas in Strategies for Development," Draft, June 1979.
- 4. James Bingen and Benedict Stavis, "Terms of Reference for an Evaluation of the Farmer Training Program in the Cameroon," October 1979.
- 5. Tom Zalla, "The Relative Importance of Money and Subsistence Incomes in Explaining Dietary Intake in Kilimanjaro--Some Preliminary Results," paper presented at the Midwest Conference on Economic Development, November 9-10, 1979, Ann Arbor, Michigan.
- 6. Michael T. Weber, "Observations and Suggestions for the Agricultural Marketing Component of the Minas Gerais II--Brazil Integrated Rural Development Project," World Bank, November 1979.
- 7. Merle Menegay, "Research Proposal: Analysis of Small Farmer-Processor Market Coordination Problems in Thailand," April 1980. (This paper was prepared jointly with the Off-Farm Employment Project, April 1980.)
- 8. Derek Byerlee, Carl K. Eicher, Carl Liedholm, and Dunstan S. C. Spencer, "Employment-Output Conflicts, Factor Price Distortions, and Choice of Technique: Empirical Results from Sierra Leone," manuscript submitted to Economic Development and Cultural Change, April 1980.
- 9. James Riddell, "Land Tenure and Access to Land in the Margui Wandala Project Area," Draft, June 24, 1980.
- 10. T. W. Schillhorn van Veen, "Notes and Observations on the Livestock Sector in the Margui-Wandala Area of N. Cameroun," June 1980.
- 11. Eric W. Crawford, "Understanding, Quantification and Modeling in Farming Systems Research: Results of a Simulation Study in Northern Nigeria," Ag. Econ. Dept, MSU, June 1980.
- 12. John Holtzman and Michael Weber, "An Assessment of the Supply and Marketing Situation for Agricultural Commodities in the Mandara Mountains, Cameroun," August 1980.
- 13. David J. Campbell, "Soil and Water Resources and Land Use: Mandara Mountains Integrated Development Project," August 1980.
- 14. Larry Lev, "Farming Systems in the Mandara Mountains," August 1980.
- 15. Benedict Stavis, "The Standard of Living in Rural China, 1978-79," Draft, September 1980.

- 16. Benedict Stavis, "Hsin-hui Hsu, Caroline Hoisington, and Mitch Meisner, "China's Cropping System Debate," Draft, September 1980.
- 17. Gail Kostinko and Josue Dione, "An Annotated Bibliography of Rural Development in Senegal: 1975-80," Draft, September 1980.

Manuscripts in Preparation

Books

- 1. Carl K. Eicher, Derek Byerlee, and David Norman, "West African Agricultural Development," book manuscript being prepared for <u>Johns Hopkins University Press.</u>
- 2. Carl K. Eicher and John Staatz (eds.), "Agricultural Development in the Third World," book in preparation.

Papers

- 3. Michael Collinson, "CIMMYT's Experience in Facilitating Farming Systems Research in Eastern and Southern Africa," to be published as MSU Rural Development Paper in late 1980.
- 4. Warren Vincent, "Methodology of Farming Systems Research in the Central Luzon Province, Philippines."
- 5. Tim Finan, Roger Fox, and Michael Weber, "Integrating Economic and Anthropological Methods in the Study of Rural Marketing Systems."
- 6. Tim Finan, "The Dynamics of Marketing Agent Behavior in the Ibiapaba Integrated Rural Development Project Area in Northeastern Brazil."
- 7. David Campbell and James Riddell, "Land Use and Land Tenure in the Mandara Mountains: Implications for Rural Development Programs," (to be completed in December 1980).
- 8. David Norman, "Cost Effectiveness of Alternative Methodologies for Carrying Out Farming Systems Research."
- 9. Tom Zalla, "Economics of Nutrition in the Kilaminjaro Region of Northern Region."
- 10. Achola Pala, "Women in Rural Development in Africa: A Critical Appraisal."
- 11. Merle Menegay, "An Analysis of Rural Household Agricultural Product Marketing Constraints in Thailand," Working Paper ready for late 1980.
- 12. David Trechter, "An Analysis of the Relationship Between Nutrition Status and Farming System Activities of Selected Rural Households in the Mandara Mountains of Cameroun," Fall 1980.