A PROJECT HISTORY OF MICHIGAN STATE UNIVERSITY'S PARTICIPATION IN INTERNATIONAL DEVELOPMENT: 1951-1985

Nancy E. Horn
June 1985

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OFFICE FOR INTERNATIONAL NETWORKS IN EDUCATION AND DEVELOPMENT
College of Education
Michigan State University
East Lansing, Michigan 48824-1034
A PROJECT HISTORY OF MICHIGAN STATE UNIVERSITY'S PARTICIPATION IN INTERNATIONAL DEVELOPMENT 1951-1985

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This project was funded by the Title XII Strengthening Grant awarded to Michigan State University by the Agency for International Development.
The purpose of this project was to set forth as complete a project history of Michigan State University's participation in international development as possible in order to achieve certain goals:

1) to provide a list of key MSU faculty contacts who have served as project participants;
2) to set forth the subject matter of development projects in which MSU has played a role;
3) to provide an informational resource to persons with similar international development project interests; and
4) to provide an historical record of MSU's growing participation in international development projects.

Data collection began in January 1985 by the author under a quarter-time graduate assistantship funded by the Title XII Strengthening Grant and channelled through the Office of International Networks in Education and Development (INET), formerly known as the Non-Formal Education Center (NFE). The work continued on a half-time basis throughout spring quarter with the assistance of the staff members of INET. Certain of these warrant special recognition for their participation in this project: Dr. Alemu Beeftu, Director, who organized the support activities required for the completion of the project, and Mary MacIntosh, who performed the extraordinary task of typing this publication.

Generating this document was made possible through the fine cooperation and insights offered by participating faculty and staff. A special note of thanks for making documentation available and for a willingness to corroborate and/or correct my initial drafts goes to Harold Riley, Agricultural Economics; Janet Munn, Agricultural Economics Project Office; Ger Schultink, Resource Development; Gerry Jacobs, Contracts & Grants; and to Paul Roberts, Institute of International Agriculture, who both channelled Title XII funding to INET for this project and read over the final draft. A very special note of thanks goes to Irving Wyeth who, at the outset of the research, spent many hours with me very patiently explaining how MSU's participation in international activities developed as the result of the building blocks of expertise gained with each project undertaken.

The decentralized nature of the reporting procedure for international projects brought me to a number of data sources on the MSU campus. Data collection occurred in the following locations, among others:

University Archives and Special Collections, Main Library
Africana and International Collections, Main Library
Agricultural Economics Project Office
Office of the Dean of International Studies & Programs
Institute of International Agriculture
African Studies Center
Latin American Studies Center
Asian Studies Center
CRIES Project Office
Office of Harold Riley
Contracts & Grants
Lengthy interviews were conducted with Irving Wyeth, Eugene deBenko, Onuma Ezera, Homer Higbee, John Hanson, Bud Doane, Harold Riley, Ger Schultink, Bob Deans, Bob Cook, Glenn Johnson, Al Pierson, Lillian Kumata, Herb Kriesel, Merle Esmay, Warren Vincent, Janet Munn, and Kim Wilson, among others. The assistance of the staff of University Archives & Special Collections, Main Library, in obtaining historical documents required to present information on projects in the 1950s, 1960s and 1970s was indeed welcome. The Office of the Dean of International Studies and Programs was especially helpful in identifying projects and in locating information on undertakings funded by the Midwestern Universities Consortium for International Activities (MUCIA).

I offer my profoundest apologies to those who have either directed or participated in projects for which either I was unable to find any documentation or I had insufficient time to conduct research. Those projects include, among others, Carol Scotton's (Linguistics and Germanic, Slavic, Asian, and African Languages) project on the Chewa language of Malawi; David Dwyer's (Anthropology) project on the Kpelle language of Liberia; MUCIA projects for which MSU was not the lead institution; the activities of Frank Madaski's Michigan Partners of the Americas; some of the international cooperative extension programs coordinated by Mary Andrews; and individual efforts to promote international development activities, especially those of Carl Eicher.

I have only one regret about generating this publication in the limited time I had; that is, as an anthropologist, I would have liked to discuss the achievements and highlights, as well as the pitfalls and obstacles, of each of the projects with some of the faculty concerned. I think this endeavor might have provided a livelier commentary on each of the projects. One of the unique strengths MSU has is the expertise and insight into international development that project participants have gained. As the reader will ascertain, this expertise is shared on a daily basis in the classroom, within and between departments, and in personal and professional networks that each of the faculty and graduate student participants has created.

MSU stands as a leader in international development activities, including institution building, providing educational opportunities for students and scholars from developing countries, and in providing technical assistance to various university faculties and ministries throughout the world. The data that this publication represents provides testimony to the vision, integrity, expertise, and willingness of MSU faculty and their students to join in the tasks of development in an interdependent world. I am honored to have been able to discover the roles MSU has played in these processes.
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ABDOMINAL ULTRASOUND STUDIES IN PATIENTS WITH SCHISTOSOMIASIS AND OTHER LIVER DISEASES

Donor: Edna McConnell Clark Foundation
Contract No.: Not available
Account No.: 71-3122
Location: Sudan
Duration: August 1984-February 1986
Budget: $70,000

Key MSU Faculty: J. Bennett (Pharmacology & Toxicology)

Project Goals: To determine the validity of ultrasonography in diagnosing Symmers' fibrosis in patients undergoing abdominal surgery for splenectomy or other conditions where a wedge liver biopsy could safely be performed (in order to ascertain whether this technique can be used in diagnosing schistosomiasis).

Project Plans/Objectives:
1. To procure, set up, and familiarize team members with an ultrasound machine.
2. To select and evaluate patients.
3. To perform ultrasound examinations.
4. To perform and evaluate wedge biopsies.
5. To interpret data, compare and tabulate results.

Cooperating Institution: Laboratory of Parasitic Diseases, NIAID, NIH, University of Khartoum, Soba University Hospital--Khartoum

Location of Documentation: Information on this project may be obtained from M. Boland, Sudan Project Office, A22 Veterinary Clinic.

Project Summary Comment: The work of this project will assist in the achievement of the objectives set forth in "Collaborative Research on Parasitic Diseases in Sudan" (1) and (2).
ACQUISITION OF IMMUNITY TO FALCIPARUM MALARIA IN SUDANESE CHILDREN

Donor: Thrasher Research Fund
Contract No.: Thrasher Account No. 2795-6
Account No.: 71-3304
Location: Sudan
Duration: July 1984-June 1987
Budget: $116,361

Key MSU Faculty: J. Jensen (Microbiology & Public Health)

Project Goals: To determine the nature of maternally acquired resistance factors that protect neonates from malaria during the first three to six months of life; to determine the relationship between chronic malarial infections in children and clinical immunity to the disease; to determine the relative roles of antimerozoite antibody, and those serum factors associated with parasite crisis-forms to the acquisition and maintenance of clinical immunity to malaria.

Location of Documentation: Further information on this project can be obtained from J. Jensen (Microbiology & Public Health), or from M. Boland in the Sudan Project Office, A22 Veterinary Clinic.

Project Summary Comment: This project is integral to the project "Collaborative Research on Parasitic Diseases in Sudan" (1) and (2).
ADDIS ABABA (ETHIOPIA) UNIVERSITY/MUCIA ACTIVITY AGREEMENT

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development
Contract No.: Varies with Activity Agreement
Account No.: Agreement No. 1--not available; 2--71-3488; 3--71-3489; 4--71-3823
Location: Ethiopia
Budget: 1--$1,400,911; 2--$35,700; 3--$36,784; 4--$177,387

Key MSU Faculty: Kirkpatrick Lawton, Project Leader (Crop & Soil Science); D. Wiley (African Studies Center)

Project Goals: To assist in institution building and in the development and further institutionalization of various units of Addis Ababa University through visits of MUCIA professors to Addis Ababa, sabbatical study of AAU professors to MUCIA institutions, and procurement of educational materials and supplies for AAU.

Cooperating Institutions: Addis Ababa University, Ethiopia; MUCIA

Location of Documentation: Most reports, contracts, and agreements are located in University Archives and Special Collections, Main Library; a summary comment on agreements 2-4 appears in the MUCIA Treasurer's Reports, 1978-81. These are available either from the Dean of International Studies and Programs, 209 Center for International Programs, or from G. Jacobs, Contracts & Grants, 302 Administration.
AFRICAN LANGUAGES

Phase 1: African Language Instruction in the U.S.: Directions and Priorities for the 1980s
Phase 3: Conference on Guidelines for the Preparation of Teaching Materials for African Languages

Donor: U.S. Department of Education, National Endowment for the Humanities
Contract No.: G008202163
Account No.: 1. 71-0230; 2. 71-1853; 3. 71-0224; 4. 71-0250
Location: MSU Campus
Duration: 1982-June 1986
Budget: 1. $24,050; 2. $30,086; 3. $8,500; 4. $50,000

Key MSU Faculty: David Dwyer, Principal Investigator (Anthropology); Carol Scotton (Linguistics)

Project Goals: To identify and locate those resources, individual and institutional, with direct experience in the study, analysis, and teaching of the 82 highest priority African languages. Subsequently, individuals will be asked to comment on the existing materials as compiled by the Center for Applied Linguistics with respect to the following: a) recommend learning packages at the beginning, intermediate, and advanced levels; b) identify unpublished supplementary materials; c) provide a priority list of needs; and d) comment on omissions from the Center's list. Additionally, to systematize African language instruction in the U.S.

Project Plans/Objectives:
1. To establish priorities among the 700-1,000 African languages.
2. To establish a directory of scholars and institutions in the U.S., Europe, and Africa working on the languages.
3. To inventory the materials available for the high priority languages.
4. To develop criteria for high quality African language instructional materials.
5. To evaluate materials available in highest priority languages.
6. To inventory materials available in the lower-priority languages.
7. To evaluate materials available in the lower-priority languages.
8. Concurrently, to develop new materials as needed, beginning with the highest priority languages.

Phase 3 specifics include:
To discuss and establish an initial set of guidelines for the evaluation and preparation of African language teaching materials by bringing together a group of Africanist language teachers, materials developers, and specialists in foreign language learning and teaching in order to discuss textbook organization and format, the teaching of communication skills, reference grammars and the teaching of structure, dictionaries and the teaching of vocabulary, and readers and the teaching of culture and texts.

Phase 4, an extension of Phase 3, specifics include:
1. To develop within the U.S. Africanist community (with the cooperation of non-Africanist specialists in foreign language learning and teaching) a set of
practical guidelines for the production and evaluation of African language teaching materials.

2. To test these guidelines by applying them to a selected group of materials now used in teaching African languages.

3. To revise these guidelines in the light of this initial application and testing.

Cooperating Institutions: University of Illinois, University of Indiana, University of Wisconsin, Northwestern University, Northern Illinois University, and numerous individuals and institutes in Africa who participated in the survey and in the evaluation.

Location of Documentation: Project proposals and final reports are located in the African Studies Center, 100 Center for International Programs. Further information is available from David Dwyer (Anthropology).

Project Summary Comment: Among project outcomes are two publications. In the first two phases, the volume *A Resource Handbook of the 82 Highest Priority African Languages* was produced. As a result of the second two phases, the volume *The Design and Evaluation of African Language Learning Materials* was produced. Copies of these publications are available from the African Studies Center, 100 Center for International Programs.
AFRICAN STUDIES CENTER
(CENTER GRANT)

Donor: U.S. Department of Education (Title VI)
Contract No.: Varies with year
Account No.: Varies with year
Location: MSU Campus
Duration: September 1969-August 1986
1976-77, $95,000; 1977-78, $105,000; 1978-79, $105,000; 1979-80, $105,000;
1980-81, $105,000; 1981-82, $130,079; 1982-83, $128,073; 1983-84, $125,000;
1984-85, $135,080; 1985-86, $140,463

Key MSU Faculty: David Wiley, Director (African Studies Center); John Henderson (Economics); John Hunter (Geography/Community Health Science)

Project Goals. To cover the cost of the activities conducted by the African Studies Center, including Center salaries, library acquisitions, faculty and outreach travel, lecture fees, speaker travel, film rental, language materials, conferences, and arrangements for African Cultural Festivals.

Location of Documentation: Documents on the Center through 1975 are located in University Archives and Special Collections, Main Library. Documents from 1976 to the current year are located in the African Studies Center, 100 Center for International Programs. Further information is available from David Wiley, Director, African Studies Center.

Project Summary Comment: Originally funded under a Ford Foundation Grant in the early 1960s, the African Studies Center has been funded subsequently by the U.S. Department of Education. Currently, 68 Core Faculty and 35 Consulting Faculty with knowledge of and interest in matters relating to Africa advise the Center on resources; research; class offerings; conferences; the African Language Program (fellowships for which are described under the project title "African Studies Center (Fellowships Grant)"); acquisition recommendations to the Africana Library and salaried support for Africanist Librarians; the publication of African Urban Studies, Rural Africana, Northeast African Studies, Sahel Bibliographic Bulletin, African Studies Center Newsletter, Africana: Select Recent Acquisitions, Tuesday Bulletin, Africana Resources, African Rural Economy Papers and Working Papers, Africana Monograph Series, and Resource Bulletin for African Studies; teaching courses with content on Africa; holding conferences on African Literature, Languages, Sudan, Northeast African Studies, etc.; conducting an outreach program; recruiting Peace Corps Volunteers (described under the project title "Peace Corps Recruitment"); and working in liaison with many other departments and centers on the MSU campus and on other campuses in the U.S. that have an interest in Africa.
AFRICAN STUDIES CENTER  
(FELLOWSHIPS GRANT)

Donor: U.S. Department of Education (Title VI)
Contract No.: Varies with year
Account No.: Varies with year
Location: MSU Campus
Duration: September 1976-August 1986

Key MSU Faculty: David Wiley, Director (African Studies Center); Carol Scotton (Linguistics); David Dwyer (Anthropology)

Project Goals: To provide U.S. graduate students the opportunity to acquire the capability of speaking in an African language in order that they may conduct research to fulfill their degree requirements.

Location of Documentation: Documents are located in the African Studies Center, 100 Center for International Programs. Further information is available from David Wiley, Director, African Studies Center.

Project Summary Comment: Since Title VI funding was obtained in 1976, a total of 128 fellowships have been awarded: Agriculture and Natural Resources--26; Arts and Letters--50; Business and Economics--3; Education--16; Human Ecology--3; Social Science--24; Science and Medicine--6. Students have studied the following African languages, among others, in a learner-oriented, on-demand program offered through the Department of Linguistics and Germanic, Slavic, Asian and African Languages: Akan/Twi, Amharic, Arabic, Fula, Hausa, Igbo, Kikuyu, Kpelle, Krio, Lingala, Luganda, Mandingo (Bambara/Maninka/Dyula), Mende, Nyanja/Chewa, Oromo, Shona, Somali, Swahili, West African Pidgin, Xhosa/Zulu, and Yoruba.
Donor: Agency for International Development
Contract No.: AID/csd-2825, AID/csd-2826
Account No.: 71-2021
Location: Worldwide
Duration: July 1970-September 1976
Budget: $745,000

Key MSU Faculty: H. Riley, Director (Agricultural Economics)

Project Goals: To expand MSU's competence in agricultural economics related to
developing countries and to develop MSU's capacity in research, training, consulting,
and technical assistance that AID, developing countries, and other donors could draw
upon.

Project Plans/Objectives:
1. To create a framework within which a significant number of U.S. agricultural
economists interested in the international aspects of their discipline can work
cooperatively on certain research problems of urgent importance to developing
countries, thereby increasing the effectiveness of their efforts, and making the
most efficient use of scarce research resources; to provide an efficient means
for applying the product of this research in ways that will be helpful to devel­
oping countries; and to contribute to the development of professional contacts
and collaboration among agricultural economists in the U.S. and in developing
countries.

2. To increase the competence of MSU in the area of economic development problems,
particularly as they relate to the agricultural sector and the relationships
between agriculture and other economic sectors, by providing a continuing
arrangement for faculty members to conduct research on campus and abroad and to
carry on work in developing countries.

3. To enable MSU to provide increased training in economic development and
agricultural economics at the graduate level for students from the U.S. and
developing countries.

4. To provide members of the MSU faculty the enriching experience of dealing
directly with problems of agricultural development in developing countries by
arranging for them to serve with AID in capacities that will contribute to the
development of their professional skills and to their understanding of how to
accelerate agricultural growth in developing countries and deal with the
practical problems involved in the process.

Location of Documentation: 211-d grant information can be obtained from H. Riley
(Agricultural Economics).

Project Summary Comment: According to the terminal evaluation of the project by
AID, the following were listed as some of its successes: a) development of a core
staff of 15 faculty members specializing in international development work; b)
increases in annual enrollment of graduate students from less than 100 to more than
125; c) increases in enrollment of graduate students from developing countries to 50%
of total, with a shift toward more students from African countries; d) 85 advanced
degrees awarded to students interested in international development; e) 50 students
received research support from grant funds; f) development of at least five
specialized graduate courses related to developing country topics; g) development of
research programs--The African Rural Development Network, Agriculture Program
Management, and Agricultural Marketing Organization in Latin America; h) numerous
publications, conference papers, dissertations, theses, etc.
AGRICULTURAL ECONOMICS SERVICES--SAHEL

Donor: Agency for International Development
Contract No.: AID/afr-C-1260
Account No.: 71-2003, 71-2004
Location: Sahel Countries of Africa (Burkina Faso, Senegal, Benin, Niger, etc.)
Duration: September 1976-April 1979
Budget: $396,513

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); P. Strassman (Economics); R. Smith (Cartographic Services); L. Manderscheid, D. Spencer, T. Zalla, H. Kriesel, J. Hunter, and P. Matlon (Agricultural Economics); E. Whiteside (Crop & Soil Science); A. Mehretu (Geography)

Project Goals: To provide agricultural economics expertise for applied research on priority problems in the Sahel, yielding advice to AID on project design and on long-term strategies and planning.

Project Plans/Objectives:
1. To develop and further refine a conceptual framework for studying the economics of animal-powered mechanization in the Sahel.
2. To generate basic input/output data on 120 smallholders in the Atakora Province of northern Benin.
3. To utilize total farm budgeting, block budgeting, and various programming models to determine the costs and returns of crop production on northern Benin farms using animal-powered technology.
4. To draw lessons from animal-powered mechanization in northern Benin for the Eastern ORD Integrated Rural Development Project in Burkina Faso, the Niger Cereals Project, and other proposed food production programs in the Sahel.
5. To use the research findings to prepare training materials for extension programs in the Sahel.
6. To prepare prototypes of a planning and evaluation manual and an extension manual for agricultural personnel in West African governments promoting animal-powered mechanization.

Objectives also include the supply of consultant services in agricultural economics for AID/Washington and for studies in association with AID field missions in the Sahel countries.

Cooperating Institutions: AID Missions in the Sahel and AID/Washington

Location of Documentation: Budgets and reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: Among the several activities the project undertook are the following: performing background research on food production, storage and food self-sufficiency, and large-scale resettlement projects in Burkina Faso and Senegal, the economics of fertilizer use in the Sahel, and basic needs and alternative development strategies in the Sahel. A number of these studies were published by the Agricultural Economics Department under the general heading of "African Rural Employment/Economy Papers". These are available from the Agricultural Economics Project Office, 7 Agriculture Hall.
AGRICULTURAL ECONOMICS TRAINING STRATEGIES
Evaluation and Utilization Project: Needs and Strategies for Improving Training of Agricultural Economists for Work in International Agricultural Development

Donor: Agency for International Development
Contract No.: AID/ta-CA-4, AID/ta-BMA-4
Account No.: 71-2044
Location: Asia, Middle East, Africa, Latin America, Central America
Duration: September 1977-November 1982
Budget: $1,728,952

Key MSU Faculty: Darrell Fienup, Project Manager (Agricultural Economics); H. Riley (Agricultural Economics)

Project Goals: To gain greater insight into the contributions U.S. graduate training in agricultural economics has made to the development process and to determine what adjustments might be made to increase these contributions.

Project Plans/Objectives:
1. To systematically document what has happened to students from developing countries with U.S. formal degree training in agricultural economics in terms of employment, professional contributions, and mobility since returning to their own countries.
2. To evaluate the training these students received in their U.S. universities and its continuing usefulness throughout their career development, and reassess their training needs at later stages of career development.
3. To determine the nature and extent of teaching and research opportunities available to U.S. professionals prepared to work in the economics of international agriculture.
4. To prepare revised strategies for improving the training of professional agricultural economists for international agricultural development work based on the data and analysis obtained from the above-stated objectives and working with training institutions to implement them.

The principal means used to collect the data and information for this evaluation was through mail questionnaires, personal interviews, and professional workshops in various developing countries and other countries where trainees were located in the major regions of the world. The workshops were coordinated with host country professional meetings, to the extent possible, and in conjunction with the Agricultural Development Council/Research and Training Network activities, where possible. The evaluation attempted to determine a) how to make U.S. graduate training more meaningful for the students and their employers; b) how to develop flexibility to utilize joint training programs with developing country institutions; c) the advantages, costs, and logistics of graduate students doing their theses in their own country; and d) methods for developing closer links between U.S. and developing country professionals in research projects, graduate student advising, and general professional communication.

Location of Documentation: Proposal, budgets, and reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
AGRICULTURAL MECHANIZATION IN AFRICA

Donor: Agency for International Development
Contract No.: AID/afr-459
Account No.: 71-2008
Location: Ethiopia, Kenya, Uganda, Gambia, Ghana, Nigeria, Senegal, Ivory Coast, Tanzania
Duration: February 1967-December 1970
Budget: $324,841

Key MSU Faculty: Bill Stout, Director and Campus Coordinator (Agricultural Engineering); C. Kline (Agricultural Engineering); R. Lucas and R. Donahue (Crop & Soil Science)

Project Goals: To study the agricultural, social, and economic factors that influence the development of a modern, viable agricultural production system in Africa using more advanced forms of agricultural equipment.

Project Plans/Objectives:
1. To document and analyze current agricultural techniques, tools, and equipment.
2. To identify factors favoring various forms of mechanization.
3. To consider economic limitations.
4. To identify specific problems relating to mechanization and suggest research areas.
5. To develop generalizations that can form a basis for planning selective mechanization programs.
6. To identify specific engineering problems and opportunities and to develop a plan whereby various types of implements or power sources can be used effectively. Potential limiting factors such as climate, soils, training, education, economics, land tenure, human resistance to change and so on will be given due cognizance.

Location of Documentation: Progress reports 1-8, terminal report of R. Donahue, reports on tillage machinery, the printer's copy of the final report, and the proposal are located in University Archives and Special Collections, Main Library.

Project Summary Comment: Based primarily in Addis Ababa, Ethiopia, this AID project was designed to collect data that would help increase agricultural productivity in participating countries. The comprehensive study served as the basis for a detailed set of published recommendations dealing with the use of hand-, animal-, and engine-powered equipment in the production, processing, transportation, and marketing of agricultural products. The summary and recommendations of the project are found in the MSU Institute of International Agriculture's Research Report No. 6, Agricultural Mechanization in Equatorial Africa, written by C. Kline, D. Green, R. Donahue, and B. Stout, 1969.
AGRICULTURAL SECTOR ANALYSIS AND SIMULATION PROJECTS (ASASP)  
(Six Projects)

Overview

(Excerpted from the Final Report of the Korean Simulation Model Advisory Service, M. Abkin, December 1977)

Over the ten-year period 1966-1976 MSU has, under a succession of contracts with the Agency for International Development (AID), conducted research and training in the general system simulation approach (GSSA) to provide analyses for agricultural development/public decision-making. At MSU the studies have been called the Agricultural Sector Analysis and Simulation Projects (ASASP).

Under the first contract (AID/csd-1557--Agricultural Sector Simulation Research), the ASASP was charged with developing the GSSA methodology and investigating the feasibility of applying the approach within the agricultural decision-making process of developing countries. Because of prior MSU experience with agricultural sector analysis in Nigeria (AID/afr-264--"Consortium for the Study of Nigerian Rural Development"), that country was chosen as a case study for simulation modeling. Since the contract did not call for actual application of the approach in Nigeria, the participation of Nigerian decision makers and analysts in the modeling process was minimal. Nevertheless, the model and its results were used by Nigerians in their preparation of a long-run perspective plan for Nigerian agricultural development.

Based on the project's conclusions that GSSA was a feasible approach for agricultural development policy and planning analysis and that simulation models and components were generalizable for application in different countries and contexts, ASASP undertook a second contract with AID in 1971 (AID/csd-2975--"Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis"). Four basic lines of activity were called for and carried out under this contract: 1) disciplinary and methodological research and development to support model building and utilization; 2) design and implementation of a training program in GSSA and agricultural policy analysis for participants from developing countries; 3) design and implementation of a software library of generalized simulation models, components, and routines; and 4) application of the approach in one or more developing countries, including model development, model utilization for policy analysis, and training of local counterparts—all with a view towards institutionalization of GSSA within the host country's agricultural policy and planning apparatus.

Also in 1971, at the request of the Korean government and the AID mission in the Republic of Korea, ASASP at MSU entered into another contract (AID/ead-184--"Korean Agricultural Sector Simulation Model") for a one-year project to perform an agricultural sector analysis and an investment priorities study. Recognizing the complementarities of the two projects, ASASP undertook its Contract 2975 field activities in Korea, which came to be known as KASS--the Korean Agricultural Sector Study. Indeed, those complementarities, primarily the use of the preliminary simulation model developed during that first year under Contract 2975, enabled completion of the sector analysis within the prescribed time limit under Contract 184.

Pleased with these results, the Korean Ministry of Agriculture and Fisheries (MAF) requested continuation of the model development field activities of Contract 2975 and committed Korean manpower both to the project's on-campus training program and to local project involvement. The project's counterpart institution in Korea was the National Agricultural Economics Research Institute (NAERI), the economic research and analysis arm of MAF.
It soon became apparent to both MAF and MSU, however, that for effective utilization (and eventual institutionalization) of the analytical capacity being developed at NAERI, efforts aimed more directly at the decision-making units of MAF proper would also be necessary. Thus, the Korean Agricultural Planning Project (KAPP) was begun in 1974, this time under a direct contract between MSU and MAF funded by an AID grant to the Korean government (AID/ASIA-C-1157). KAPP included a policy analyst, a program and project analyst, a situation and outlook analyst, and an agricultural statistician, and it called for, among other things, 1) cooperation with the KASS project in utilizing the simulation models for decision analysis, and 2) recommendations on the institutional reorganization of MAF.

With the termination in early 1976 of the KASS field activities under Contract 2975, the ASASP and NAERI were faced with the prospect of a break in the provision of professional systems science services. Although Koreans had returned or were about to return from training at lower levels, successful continued model development, in-service training, institutionalization and cooperative analysis with KAPP required the continuing presence of a Ph.D. level systems scientist until additional trainees could return. Therefore, in 1976 MSU entered into another contract (AID/ta-C-1322—"Korean Agricultural Simulation Advisory Services") to advise and assist Korean staff in computer model operation, updating of data, testing various policy alternatives and evaluating results and use of the model. This contract ended in December 1977, the date marking the end of the ASASP contracts.

A spin-off of these contracts and the GSSA approach has been MSU's involvement with the International Institute for Applied Systems Analysis (IIASA) Food and Agriculture Program (FAP). MSU was the official U.S. representative for the Academy of Science at IIASA, and a Cooperative Agreement between MSU and the Economic Research Service of the U.S. Department of Agriculture called for the development of a detailed U.S. model of agriculture, its integration with the IIASA/FAP global system, and the installation of that system at the USDA's Washington Computer Center. The model, constructed with the skills and insight developed over the course of the ASASP projects, is now fully operational at the USDA.

Many of the analyses, processes, and findings of these projects have been published in Agricultural Sector Planning, G. Rossmiller (ed.), East Lansing: Michigan State University, Department of Agricultural Economics, 1978.
AGRICULTURAL SECTOR ANALYSIS AND SIMULATION PROJECTS (ASASP) (1)

AGRICULTURAL SECTOR SIMULATION RESEARCH

Donor: Agency for International Development
Contract No.: AID/csd-1557
Account No.: 71-2005
Location: Nigeria and MSU campus
Duration: June 1967-November 1971
Budget: $390,156

Key MSU Faculty: G. Johnson, Director (Agricultural Economics); T. Manetsch (Systems Science); M. Hayenga and G. Johnson (Agricultural Economics); R. Deans (Animal Science)

Project Goals: To develop a simulation model that will be useful to policy makers of Nigeria who are concerned with meeting the nutritional needs of the population, generation of foreign exchange earnings and raw materials inputs for industrialization, and other important questions relating to long-run development of the agricultural sector and its interaction with non-agricultural development.

Location of Documentation: Documents for this project can be obtained from University Archives and Special Collections, Main Library, under the project documents for the Consortium for the Study of Nigerian Rural Development (CSNRD).

Project Summary Comment: This project grew out of the agricultural sector studies conducted under the CSNRD project. The model generated was then applied to agricultural sector studies in Korea (see "Korean Agricultural Sector Study" and "Korean Agricultural Planning Project").
Donor: Agency for International Development

Contract No.: AID/csd-2975

Account No.: 71-2038

Location: Korea and Nigeria

Duration: July 1971-December 1976

Budget: $1,603,460

Key MSU Faculty: G. Rossmiller, Co-Director (Agricultural Economics); G. Johnson, Co-Director (Agricultural Economics); A. Thodey, L. Stiefel, L. Teigen, and K. Wright (Agricultural Economics); T. Manetsch, M. Abkin, and T. Carroll (Systems Science)

Project Goals: To test, apply, and further develop, under field conditions, the simulation model (and components) developed under Contract AID/csd-1557 ("Agricultural Sector Simulation Research") with the end in view of increasing the usefulness and lowering the cost of policy, program, and project development and evaluation.

Project Plans/Objectives:

1. To test, adapt, extend and use the computer simulation model developed under AID/csd-1557 in the context of Korea, Nigeria, and other countries in designing, developing, and evaluating selected policies, programs, and projects, placing particular emphasis on establishing linkages with indigenous institutions and on establishing their capacity to use computerized simulation models to design, analyze, and evaluate their own policies, programs, and projects.

2. To test, adapt, extend, and use the computer simulation model developed under AID/csd-1557 in designing, developing, analyzing, and studying, and/or evaluating selected programs and projects for AID/Washington and/or AID Missions in countries mutually selected by AID/W and the Contractor.

3. To establish a software library in order to make model components available on a national and international basis to potential users in donor, lender, and host country agencies.

4. To further develop the computer simulation model on the basis of experience by using it under field conditions.

5. To train personnel from host country, donor, and lender agencies in the use, adaptation, and further development of computer simulation models.

6. To develop the capability to a) respond to requests from the U.S. Government (including its overseas agencies), international agencies, foreign governments, and grantor and lender agencies for simulation and analyses of policy, program, and project problems at the agricultural sector and sub-sector level, and b) respond to requests from workers in such related sectors as health, education, industry, transport, population, technological research, nutrition, and public administration for consulting services and, perhaps, joint participation in constructing models in such fields.

Cooperating Institutions: Korean Ministry of Agriculture and Fisheries, National Agricultural Economics Research Institute, Ministry of Science and Technology; Nigerian Federal Ministry of Agricultural and Natural Resources, Department of Agricultural Economics of the University of Ibadan, Nigeria
Location of Documentation: Copies of the contract, amendment, correspondence and annual reports can be obtained from G. Johnson, Agricultural Economics.

Project Summary Comment: Development of the original agricultural sector simulation models occurred as a result of sector studies undertaken in Nigeria through the CSNRD project ("Consortium for the Study of Nigerian Rural Development"--AID/afr-264). Subsequently, AID awarded MSU a contract to computerize agricultural sector analyses through simulation (AID/csd-1557). Under this contract a general computerized systems-science simulation model of the Nigerian economy was developed with emphasis on the agricultural sector. After completion of that contract, the present contract was awarded to meet the stated goals and objectives.
AGRICULTURAL SECTOR ANALYSIS AND SIMULATION PROJECTS (ASASP) (3)

KOREAN AGRICULTURAL SECTOR SIMULATION MODEL

Donor: Agency for International Development/Mission Korea
Contract No.: AID/ead-184
Account No.: 71-2010
Location: Korea
Duration: August 1971-December 1973
Budget: $311,037

Key MSU Faculty: G. Rossmiller, Field Project Leader (Agricultural Economics); Glenn Johnson, Director (Agricultural Economics); T. Manetch and T. Carroll (Systems Science)

Project Goals: To test, apply, and further develop, under field conditions, the simulation model (and components) developed under Contract AID/csd-1557 with the end in view of increasing the usefulness and lowering the cost of policy, program, and project development and evaluation.

Project Plans/Objectives: The plans/objectives of this project are integrally linked to the project "Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis". Information on that project (csd-2975) overlaps with that reported for the current project. Additional Plans/Objectives include:

1. To define and describe the parameters of the agricultural sector giving the rationale for the selection.
2. To identify, describe, analyze, and evaluate the physical resources comprising the agricultural sector giving the magnitude of the more important resources and their significance to the development of Korean agriculture.
3. To define and describe the components comprising the production and marketing infrastructure (including the private sector and agribusiness activities), the government infrastructure affecting the production, marketing, and consumption of agricultural products, the political implications of the government to develop, execute, and evaluate agricultural policies and programs.
4. To describe, analyze, and evaluate national agricultural development and production goals, the political ramifications of these goals and the likelihood of the government's and sector's capability of attaining both short- and long-run operational and planning goals.
5. To identify, describe, and analyze the elements or subsectors inhibiting the growth of the sector, including policies, government regulations, customs, programs, capital availability and allocation, institutions and other factors.
6. To define, describe, measure, and analyze the interaction between the urban and rural sectors for performance variables such as labor efficiency, population migration, income distribution, and manpower utilization.
7. To analyze both micro and macro agricultural input/output relationships given specific government policies and programs.
8. To identify those elements or subsectors that require further investment to optimize the development of the agricultural sector, giving the priority sequence and time frame in which these investments should be made, the magnitude of this investment schedule, the most feasible sources of investment funds, and the rationale for selecting investment areas, given selected price, program, and policy alternatives.
9. To identify, analyze, and evaluate production and marketing research activities and programs in order to project the research, technological, and human resource requirements necessary for optimizing the growth of the sector, given selected assumptions.

10. To describe, analyze, and evaluate the organizational structure of the Ministry of Agriculture and Fisheries and pertinent related agencies, in particular the National Agricultural Cooperative Federation; to recommend the organizational structures and human resource requirements to adequately carry out current and proposed policies and programs.

11. To project budgetary and other government resource requirements, balance of payments, aggregate production, output efficiency, and other performance evaluation parameters, using selected policy and program alternatives.

12. To train Korean counterpart personnel in the techniques, methodology, and analytical procedures used throughout the study and document these techniques, methodology, and analytical procedures in such a manner that a continuing analysis of the sector can be carried out with a minimum of outside assistance upon the completion of the contract.

13. To adapt a simulation model for Korean agriculture, including the further development, testing, adapting, extending, and use of the computer simulation model developed under contract AID/csd-1557.

Cooperating Institutions: Korean Ministry of Agriculture and Fisheries, National Agricultural Economics Research Institute, Ministry of Science and Technology

Location of Documentation: Quarterly reports and the Agricultural Sector Study are located in University Archives and Special Collections, Main Library. Other reports can be obtained from G. Johnson (Agricultural Economics).

Project Summary Comment: Researchers conducting the sector study were, generally, supported by this contract; however, insofar as the study involved the further development and application of the agricultural sector simulation models, support was received from Contract AID/csd-2975.
KOREAN AGRICULTURAL PLANNING-PROJECT (KAPP)

Donor: Government of Korea with funds from the Agency for International Development
Contract No.: AID/ASIA-C-1157
Account No.: 71-2002
Location: Korea
Duration: March 1974-December 1977
Budget: $700,333

Key MSU Faculty: G. Rossmiller, Co-Director (Agricultural Economics); G. Johnson, Co-Director (Agricultural Economics); H. Kriesel and K. Wright (Agricultural Economics)

Project Goals: To increase the capacity of the Ministry of Agriculture and Fisheries and through them the government of the Republic of Korea, for sound planning, agricultural policy formulation, program development, and project design and execution toward more rapid and effective development of the agricultural sector.

Project Plans/Objectives:
1. To understand the organizational structure and the operational processes presently used by the Ministry of Agriculture and Fisheries (MAF) in planning developmental activities, and to identify the constraints in these systems leading to ineffective, inefficient, and operationally unsound outcomes.
2. To advise on organizational and functional means to eradicate the constraints identified in (1) above.
3. To do substantive work on current issues, within the scope of the project, to relieve current problems and to provide on-the-job training in the use of modern analytical techniques and processes for Korean personnel of MAF.
4. To coordinate the activities of the project with the operational activities of the Korean Agricultural Sector Study (KASS) team to exploit to the fullest the KASS model, developed with MSU assistance, to guide development of changes in the KASS model to better serve the agricultural outlook model, and to recommend new components to the KASS model that will contribute to planning and agricultural policy analysis functions.

Cooperating Institutions: Korean Agricultural Economics Research Institute, Ministry of Agriculture and Fisheries, the Office of the Economic Advisor to the President of Korea; North Carolina State University

Location of Documentation: Reports are available from G. Johnson (Agricultural Economics).

Project Summary Comment: The initial activity under the KAPP contract was a review and analysis of the Korean agricultural statistics and data acquisition system. This activity led to a report with a series of recommendations for improvement of the system. From its inception, the KAPP contract envisioned a three-way cooperative effort for the purpose of improving the operational process through which planning, policy formulation, program development, and project design and execution take place with respect to the agricultural sector within the Korean government. MSU supplied specialists in the four areas of concentration with the recognition that their inputs were complementary and thereby required cooperative efforts and interaction through comprehensive work plans. In order to assure coordination between the KASS and KAPP projects, a single project leader was designated.
AGRICULTURAL SECTOR ANALYSIS AND SIMULATION PROJECTS (ASASP) (5)

KOREAN AGRICULTURAL SIMULATION ADVISORY SERVICES

Donor: Agency for International Development
Contract No.: AID/TA-c-1322
Account No.: Not available
Location: Korea
Duration: June 1976-December 1977
Budget: $98,379

Key MSU Faculty: M. Abkin (Systems Science)

Project Goals: To advise and assist Korean staff in the Ministry of Agriculture and Fisheries and the National Agricultural Economics Research Institute on computer model operation, up-dating of data, testing various policy alternatives, and evaluating results and use of the model tested and adapted under contract AID/csd-2975.

Project Plans/Objectives:
1. To further model development to keep results current and relevant to the needs of Government of Korea decision makers.
2. To ensure that new information is entered into the model in a timely and regularly scheduled manner.
3. To advise on procedural techniques and routines.
4. To advise on organizational arrangements for accomplishing required functions.
5. To review the results obtained in terms of logical expectations.
6. To continue in-service training to refine model operation.
7. To evaluate model results and utilization of output.

Cooperating Institutions: Korean Ministries of Agriculture and Fisheries, Science and Technology, and the Bureau of Statistics

Location of Documentation: Project information can be obtained from G. Johnson (Agricultural Economics).

Project Summary Comment: The services provided by M. Abkin under the terms of this contract constitute the final inputs of MSU during a transition period as the Koreans assumed control and responsibility for these activities. A final report by M. Abkin provides an overview of the project and information on his activities in Korea.
Donor: U.S. Department of Agriculture
Contract No.: 58-3522-0-00245
Account No.: Not available
Location: MSU campus
Duration: 1983
Budget: Not available

**Key MSU Faculty:** M. Abkin (Systems Science)

**Project Goals:** To develop a detailed model of Agriculture in the U.S.; to integrate this model with the IIASA/FAP global system; and to install that system at the USDA's Washington Computer Center.

**Cooperating Institutions:** International Institute of Applied Systems Analysis, USDA

**Location of Documentation:** A staff report written by M. Abkin for USDA entitled *A Guide to USWRLD-the USDA MSU Version of the IIASA World Food and Agriculture Model and Computer Program* (Trade Policy Branch, International Economics Division, USDA, August 1983) is available from G. Johnson (Agricultural Economics).

**Project Summary Comment:** This spin-off undertaking from the ASASP contracts called for the generation of a more detailed U.S. agricultural model that would fit into a world-linked one. This model is currently being used by USDA.
ALTERNATIVE RURAL DEVELOPMENT STRATEGIES (1)

Donor: Agency for International Development
Contract No.: AID/ta-CA-3
Account No.: 71-2017 (Core), 71-2018 (Francophone add-on)
Location: Africa (Cameroon, Ivory Coast, Mauritania, Zimbabwe, Somalia, Senegal, Zambia, Burkina Faso), Caribbean (Barbados, Eastern Caribbean Islands, Haiti), Latin America (Honduras), and Asia (Pakistan)
Duration: September 1977-September 1983
Budget: $2,043,331

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); B. Stavis, T. Zalla, M. Weber, H. Kriesel, W. Vincent, and G. Wood (Agricultural Economics); A. Mehretu and D. Campbell (Geography); M. Bratton (Political Science); E. Everson and R. Freed (Crop & Soil Science); R. Deans (Animal Science)

Project Goals: To enhance the capacity of developing country institutions and AID missions to plan and implement national and regional rural development strategies, policies, and programs that promote increased productivity, income, and welfare of the rural poor.

Project Plans/Objectives:
1. To conduct research with a focus on smallholder production systems, including farm, non-farm, and off-farm linkages.
2. To conduct farming systems research.
3. To conduct research on rural marketing systems.
4. To discern the interrelationships among production and marketing systems, with attention to consumption/nutrition implications for rural households.
5. To generate cost-effective techniques for data collection and analysis, including the use of hand calculators, microcomputers, and hand computers in research on farming and marketing systems.

Cooperating Institutions: Universities and Ministries of Agriculture in each of the countries in which research is undertaken

Location of Documentation: Trip and other reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: A partial list of project activities includes: the study of political and administrative structure at the local level in Zimbabwe; research on a food for development project in Somalia; evaluation of the Casamance Regional Development Project in Senegal; livestock marketing surveys in Somalia and Saudi Arabia; a study on how to enhance farmer participation and how to design agricultural policy and institutions in several Francophone countries; a micro-feasibility study of PL480, a food and agricultural sector assessment, and a study of rural roads in Mauritania; agricultural surveys of the Mandara Mountain region in Cameroon; workshops on farming systems research in conjunction with the Pakistan Agricultural Research Council; an evaluation of the CARDI/USAID Small Farm Multiple Cropping Systems Research Project in St. Lucia, Antigua, St. Kitts, Montserrat, Dominica, St. Vincent, and Trinidad; and updating the agricultural sector strategy statement in Haiti. Reports on many of these projects are available from the Agricultural Economics Project Office, 7 Agriculture Hall, under the heading "MSU International Development Working Papers".
ALTERNATIVE RURAL DEVELOPMENT STRATEGIES (2)

Donor: Agency for International Development

Contract No.: AID/DAN-1190-A-00-2069-00

Account No.: 71-2038 (Core), 71-2039 (Francophone), 71-2040, 71-2047 (Zimbabwe), 71-2042 (Haiti), 71-2044 (Barbados)

Location: Asia (Philippines); Africa (Zambia, Tanzania, Kenya, Malawi, Lesotho, Madagascar, Mozambique, Swaziland, Sudan, Ivory Coast, Zimbabwe, Botswana, Gambia, Sahel countries); Caribbean (Barbados, Haiti, St. Lucia)

Duration: September 1982-August 1985

Budget: $1,000,843

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); M. Weber (Agricultural Economics)

Project Goals: To develop, strengthen, and expand the recipient's institutional capacity to assist programs in developing countries aimed at improving the living conditions of the rural poor. Institutional capacity is here understood to include not only the capacity to provide this kind of assistance but also to transfer this same capacity to similar type institutions in the developing world. Both aspects of institutional development and technology transfer are considered of equal importance.

Project Plans/Objectives:
1. To develop cost effective techniques for data collection and analysis, including the development of improved data management techniques using appropriate micro-computer technology.
2. To assist developing countries with policy analysis through short-term professional services to enhance programs aimed at the rural poor.
3. To assist developing countries with project design, implementation, and evaluation in order to correct faulty design, inappropriate direction or misinterpretation of results.

Location of Documentation: Budgets and reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: Consulting Activities are conducted on the basis of PIO/T agreements with AID. A partial list of activities to date includes:
1. Zimbabwe--advise the Consultative Technical Committee for Research of the Southern Africa Development Coordination Conference (SADCC) on developing a regional food security policy; advise SADCC on a regionally coordinated program to strengthen undergraduate and graduate training in the region's various faculties of agriculture; conduct a special study of regional agricultural research and training needs, including alternative food security strategies, crop production, livestock production and disease control, irrigation, and soil and water management.
2. Barbados--design a work plan for accomplishing the evaluation of the Caribbean Agricultural Trading Company trading operations and business growth during the period of AID assistance.
3. Haiti--perform an economic analysis of the evaluation of the Haiti Area Development project, including assessment of the agricultural components of the project--agricultural credit, demonstration gardens, plantations, and reforestation--to determine their impacts on the residents of the Northwest.

4. Francophone countries of Africa--assist the AID missions in preparing country development strategy statements, food sector strategy studies, mission agricultural sector assistance strategies, project papers in agricultural policy and planning, agricultural institutional development including marketing and enhancement of farmer participation in the development process.

5. Botswana--work with the Government of Botswana in reviewing observations regarding a five-year ICRISAT Regional Millet and Sorghum research program; review ICRISAT preliminary proposal for research on land and water management; participation on a review team to upgrade a Grain Legume Feasibility Study.

6. Gambia--evaluate a mixed farming project.

7. Miscellaneous--assistance has also been provided in St. Lucia, the Philippines, Zambia, Tanzania, Kenya, Malawi, Lesotho, Madagascar, Mozambique, Swaziland, Sudan and Ivory Coast.

Several reports have been generated from these consultancies, many of which have been published by the Agricultural Economics Department under the working paper series entitled "MSU International Development Working Papers". A list of these publications is available in the Agricultural Economics Project Office, 7 Agriculture Hall.
ANIMAL TRACTION STUDY--SAHEL

Donor: Agency for International Development
Contract No.: AID/REDSO/WA-78-144
Account No.: 71-2045
Location: Mali, Senegal, Gambia, Burkina Faso, Chad, Mauritania
Duration: September 1978-October 1979
Budget: $43,471

Key MSU Faculty: P. Matlon, Project Director (Agricultural Economics)

Project Goals: To conduct a systematic study of animal traction schemes and experiences in West Africa and to provide policy guidelines to national institutions and external donors on the design, implementation, and evaluation of projects that include draught animal power as a central component.

Location of Documentation: Final report, budget, and other documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: Project analyses included an historical sketch of animal traction in the Sahel region; the technical and economic benefits from animal traction; adoption of animal traction systems for plowing, planting, weeding, and transport; farm level operations; evaluation of financial and economic effects; constraints to animal traction; and implications of constraints to production.
ANTIGENIC ANALYSES OF CULTURED *PLASMODIUM FALCIPARUM*

Donor: Agency for International Development  
Contract No.: DPE 0453-C-00-1018-00  
Account No.: 71-2002  
Location: Sudan  
Duration: February 1981-December 1984 (with extension date to be negotiated)  
Budget: $308,251

Key MSU Faculty: J. Jensen, Principal Investigator (Microbiology & Public Health)

Project Goals: To collect antiplasmodial serum from individuals functionally immune to malaria to be used as an aid in the identification of protective soluble antigens from *P. falciparum* cultures.

Project Plans/Objectives:
1. To identify, isolate and characterize "naturally elaborated" soluble exoantigens in the exhausted culture medium used to grow *P. falciparum*.
2. To identify and characterize soluble exoantigens from cultured *P. falciparum* that may play a role in protection against malaria, and thus may be a vaccine candidate by:
   a. immunizing rabbits, guinea pigs and *Saimiri* monkeys with cultured antigen preparations and using the resulting antiparasite serum in an *in vitro* parasite development inhibition assay;
   b. reacting soluble parasite antigens derived from cultured *P. falciparum* with serum obtained in Sudan from individuals functionally immune to malaria to determine which antigens may neutralize the inhibitory activity of the serum.
3. To use electron microscopic immunolabeling techniques to determine the subcellular position of those antigens that show promise as potential vaccine candidates.
4. To determine which of the parasite exoantigens are responsible for several undesirable phenomena such as those which produce hyperpyrexia, non-specific lymphocyte transformations, changes in hematocrit and other hematologic parameters.

Cooperating Institutions: Ministry of Health, Sudan

Location of Documentation: A project proposal is located in the Office of Contracts and Grants, 302 Administration; more extensive information is available through M. Boland, Administrator, Sudan Project, A22 Veterinary Clinic.

Project Summary Comment: In conjunction with an NIH sponsored project on the emergence of strains of *P. falciparum* resistant to chloroquine and other 4-aminquinolines in the Sudan (see "Collaborative Research on Parasitic Diseases" (1) and (2)), antiplasmodial serum will be collected from individuals functionally immune to malaria. This antiserum will be used as an aid in the identification of protective soluble antigens from *P. falciparum* cultures.
ARGENTINA COLLEGE OF AGRICULTURE--BALCARCE

Donor: Argentina National Research & Extension Organization (INTA), the Catholic University of Mar del Plata, and the Agency for International Development

Contract No.: AID/la-245
Account No.: 71-2002
Location: Argentina
Duration: February 1965-January 1971
Budget: $901,745

Key MSU Faculty: Kirk Lawton, Campus Coordinator (Crop & Soil Science); Ronald Nelson, Chief of Party (Animal Science); W. Adams (Crop & Soil Science); J. Hoefer (Animal Husbandry); L. Kyle (Agricultural Economics); W. Drew (Botany & Plant Pathology)

Project Goals: To develop an integrated institution incorporating the teaching function of the College of Agriculture of the Catholic University of Mar del Plata with the research and extension services of the National Institute of Agricultural Technology (INTA) at Balcarce; to strengthen the agricultural college at Balcarce; and to institute principles and practices common to land grant institutions in the U.S.

Project Plans/Objectives:
1. To establish and develop academic departments and a curriculum suitable for the training of agricultural technicians to help cope with problems of modern agriculture.
2. To coordinate the integration of teaching, research, and extension.
3. To train staff in Argentina and at other U.S. universities at the degree and non-degree levels.
4. To help evaluate extension programs.
5. To develop expanded agricultural communication networks.
6. To establish and develop a college or institute of home economics.
7. To assist in strengthening 4-H leadership training programs.
8. To provide certain research services in the further development of Argentina's Institute of Meat Technology.

Cooperating Institutions: Indiana University, University of Pittsburgh, and Syracuse University

Location of Documentation: Quarterly, Semi-Annual, and Final Reports are located in University Archives and Special Collections, Main Library.

Project Summary Comment: A comprehensive study of the development of the Facultad de Agronomía at Balcarce was carried out as part of this project in 1967-69 by a faculty member of the MSU College of Agriculture and Natural Resources as part of the Inter-University Research Program in Institution Building. Research Report No. 8 published by the Institute of International Agriculture at MSU identifies and analyzes those variables and transactions in the international institutionalization process that might serve as guidelines for the effective use of resources in the development of innovative education.

The project aimed at blending the theoretical orientation of the Catholic University with the practical focus of research and extension programs carried out by INTA. The newly established curriculum focused on the biological, agricultural, and social sciences. MSU's responsibilities also included the procurement of laboratory equipment and supplies to support the programs developed under this approach.
ARGENTINA--GRADUATE SCHOOL OF AGRICULTURAL SCIENCES--CASTELAR

Donor: Agency for International Development grant to Texas A & M
Contract No.: AID/la-682
Account No. 71-2041
Location: Argentina
Duration: July 1971-March 1974
Budget: $297,765 (MSU share)

Key MSU Faculty: Dale Harpstead, Co-Director (Crop & Soil Science); Lynn Robertson Co-Director (Crop & Soil Science); E. Erickson, A. Smucker, R. Lucas, E. Whiteside (Crop & Soil Science); W. Vincent (Agricultural Economics)

Project Goals: To assist in developing the capability of the Graduate School of Agricultural Sciences at Castelar, Argentina, to provide South American students with a graduate training center in agricultural sciences capable of granting master's level degrees of high academic quality and oriented toward the particular agricultural problems of South America (especially of the Southern Cone region).

Project Plans/Objectives:
1. To provide support in animal science, agricultural economics, agricultural extension, and crop and soil sciences.
2. To provide equipment, supplies, and library materials to increase the school's teaching and research capabilities.
3. To assist in the development of the school's capacity to utilize computer facilities for student and faculty research projects.

Cooperating Institutions: Argentina's National Institute of Agricultural Technology (INTA), the University of Buenos Aires, the National University of La Plata, and the Inter-American Institute of Agricultural Sciences, together with a consortium represented by Penn State, Texas A & M (the lead institution) and MSU

Location of Documentation: End of tour report is located in University Archives and Special Collections, Main Library.

Project Summary Comment: MSU's primary participation in this project was the creation of a graduate program in soil science. The consortium staff also taught courses in the animal production program and provided 40% of the laboratory sessions in the soil science program. Laboratory facilities in soils, crops, and animal production were improved through the purchase and installation of laboratory equipment as well as the addition of computer hardware. Research library facilities were improved through the purchase of reference books and journals. The project had to be terminated due to internal political turmoil.
ASIAN SMALL FARMERS  
(DESIGN OF CROPPING PATTERNS FOR ASIAN SMALL FARMS)

Donor: Agency for International Development  
Contract No.: AID/DSAN-C-1011  
Account No.: 71-2041  
Location: Philippines  
Duration: April 1978-October 1979  
Budget: $22,500  

Key MSU Faculty: Warren Vincent, Project Manager (Agricultural Economics)

Project Goals: To empirically validate the alternative ways available labor and power can be used in more intensive rice-based cropping patterns to increase food production in an overall Cropping System Program.

Project Plans/Objectives:  
1. To ascertain through two years of farm-level daily record keeping data, interviews of case farmers, and other research techniques the particular constraints and structure of small farm enterprises.  
2. To create a mathematical model of the small farm enterprise.  
3. To make recommendations within an overall cropping system on how to increase productive capacity through removing constraints on the cropping system.

Cooperating Institutions: International Rice Research Institute (IRRI), Philippines

Location of Documentation: Project proposal, final report, and budget information are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
The Bean/Cowpea CRSP is a program of coordinated projects in Africa and Latin America addressing hunger and malnutrition through research on the production and utilization of beans (*Phaseolus vulgaris*) and cowpeas (*Vigna unguiculata*). The goal of the Bean/Cowpea CRSP reflects the mission of the Title XII "Famine Prevention and Freedom from Hunger Act" of the U.S. Foreign Service Assistance Act under which the program is funded. It is to establish active and vigorous collaborative research efforts that will contribute to the alleviation of hunger and malnutrition in developing countries by improving the availability and utilization of these foods. The CRSP also makes a significant contribution to agriculture in the U.S. through the increased knowledge and materials generated by research partnerships with host countries.

Beans and cowpeas are dietary staples in the host countries associated with this CRSP. Among many families, these legumes provide the major source of high quality affordable protein as well as an important source of B vitamins. Beans and cowpeas generally are grown as food for household consumption, rather than as export crops. They are typically grown on subsistence farms and, in some countries, are grown solely by women, on whose shoulders rests the major responsibility for providing the food for family consumption. CRSP research seeks to strengthen the resources available to these producers.

CRSP research is concerned with genetics and plant breeding, agronomics, economics, nutrition, and socio-cultural factors. A global research plan, developed jointly by host country and U.S. colleagues, formed the basis for the design of the eighteen collaborative projects. Begun with Planning Unit Funding under Title XII in 1978, the project took form over two years of collaborative consultation among agricultural professionals at MSU, BIFAD, other U.S. institutions, and those in potential host countries. Visits to CIAT, Guatemala, Panama, Costa Rica, Colombia, Chile, Dominican Republic, IITA, Honduras, Mexico, Kenya, Tanzania, Malawi, and other places by MSU faculty participants sought to ascertain countries in which the CRSP would be most beneficial. In April 1980, a series of on-site meetings with potential U.S. and host country collaborators was held in order to familiarize U.S. collaborators with the specific resources, problems, and culture of the countries in which work was to be conducted. In June 1980, the Bean/Cowpea Global Plan and proposal to implement the CRSP was presented to the Agency for International Development with funding being granted as of October 1980.

The Management Office of the CRSP is located at MSU and is directed by Dr. Patricia Barnes-McConnell. Additionally, three of the eighteen projects are headquartered at MSU in Crop and Soil Science (Malawi and Mexico) and in Community Health Science (the nutrition project in Nigeria).

Five project descriptions will be presented: the Planning Unit, overall project description, and the three projects headquartered at MSU. Funding for the projects is part of the overall program funding, but is reported where appropriate to indicate the amount of support they receive.
BEAN/COWPEA COLLABORATIVE RESEARCH SUPPORT PROGRAM--PLANNING UNIT (1)

Donor: Agency for International Development, Title XII
Contract No.: Not Available
Account No.: 71-1999
Location: Worldwide (Africa and Latin America)
Duration: October 1978-April 1980
Budget: $249,500

Key MSU Faculty: Dale Harpstead and Wayne Adams (Crop & Soil Science), Patricia Barnes-McConnell (Women in Development)

Project Goal: To identify host country and U.S. problem areas, interests, and capabilities in conducting bean/cowpea research.

Project Plans/Objectives: To create a global plan of research concentrating on the following areas in each host country:
1. To be individual but structurally integrated in order to make the maximum contribution to the availability of beans and cowpeas in areas where they are important to human diet.
2. To emphasize multidisciplinary research integrating production and non-production issues.
3. To focus on research in traditional settings.
4. To build strong and collegial professional relationships among host country and U.S. researchers in each project.
5. To make financial resources available for both host country and U.S. research activity.
6. To contribute to the strengthening of host country institutions through the enhancement of facilities and equipment needed to support that research.
7. To contribute to the strengthening of host country institutions through a significant level of graduate and undergraduate study, short-term courses, conferences, and workshops.
8. To pay specific attention to the roles and participation of women.
9. To be alert to mechanisms for information dissemination.
10. To provide an opportunity for private sector participation in research activity and in the dissemination of products.

Areas requiring specific attention in the global plan were prioritized and included: a) limitations due to pests and diseases, b) plant response to limitations, c) limitations of the physical environment, d) farming practices limitations, e) storage problems, f) production-consumption economics, g) nutrition, food preparation, and health, h) socio-cultural factors, and i) education, training, and research capabilities.

The first four constraints represent prioritized agricultural production problems and the remaining represent other related areas in bean/cowpea availability, utilization or consumption.
Cooperating Institutions: During the planning phase, agricultural professionals from Cornell University, University of Missouri, University of California at Berkeley, CIAT, Guatemala, Panama, Costa Rica, Colombia, Chile, Dominican Republic, IITA, FAO, American Society of Horticultural Science, Honduras, IICA, Kenya, Tanzania, Malawi, PCCMCA and others were consulted.

Location of Documentation: All project documents are located in the Bean/Cowpea CRSP Management Office, 200 Center for International Programs.

Project Summary Comment: After the planning unit completed its objective of designing a global plan and submitting a proposal for funding to Title XII, its function ceased, with most of its expertise and human resources being incorporated into the CRSP when funded in October 1980.
BEAN/COWPEA COLLABORATIVE RESEARCH SUPPORT PROGRAM--OVERALL PROJECT (2)

Donor: Agency for International Development, Title XII
Contract No.: AID/DSAN-XII-G-0261
Account No.: 71-2001
Location: Botswana, Brazil, Cameroon, Dominican Republic, Ecuador, Guatemala, Honduras, Kenya, Malawi, Mexico, Nigeria, Senegal, Tanzania
Duration: October 1980-September 1985 (extension to be negotiated June 1985 to run until September 1988)
Budget: $14,700,000 (all project budgets are included in this total)

Key MSU Faculty: Patricia Barnes-McConnell, Director; D. Isleib (Institute of International Agriculture); D. Harpstead, Board of Directors (Crop & Soil Science); W. Adams (Crop & Soil Science); P. Markakis, W. Chenoweth, and M. Uebersax (Food Science & Human Nutrition); D. Greenbaum (Medicine); H. Sadoff (Microbiology & Public Health)

Project Goals: To make a significant contribution to the improvement of living conditions of small farm producers in developing countries and to increase the availability of low cost, nutritious food in the marketplace for the rural and urban poor.

Project Plans/Objectives:
1. To organize and mobilize financial and human resources necessary for mounting a major multi-institutional U.S./host country collaborative effort in research and training.
2. To provide the knowledge base necessary to achieve significant advances in alleviating the principal constraints to improved production, marketing, and utilization of beans and cowpeas in host countries.
3. To improve the capabilities of host country institutions to generate, adopt, and apply improved knowledge to local conditions.

Each of the bean/cowpea projects has specific goals and objectives designed in collaboration between U.S. and host country institutions. These are presented for subprojects in which MSU is the lead institution on subsequent pages. The remainder are listed below.

2. Brazil--Insect Pathogens in Cowpea Pest Management Systems for Developing Nations--Boyce Thompson Institute (lead institution)--Goal: To develop insect pathogens as pest management tools compatible (integrated) with other insect control practices and to train developing country scientists in insect pathology so they can function independently in microbial control projects for cowpeas and other crops.
3. Brazil--Identification of Superior Bean-Rhizobia Combinations for Utilization in Cropping Systems Suitable to Small Farms in Brazil--University of Wisconsin (lead institution)--Goal: To develop superior common bean cultivars capable of enhanced biological nitrogen fixation that, in association with superior strains of Rhizobium phaseoli, produce high yields under bean monoculture and intercropping systems without supplemental nitrogen fertilizer.
4. Brazil--Improved Techniques for Development of Multiple Disease Resistance in *Phaseolus vulgaris* L.--University of Wisconsin (lead institution)--Goal: To develop improved techniques, research strategies, and methodology for use by bean breeders worldwide in the development of multiple disease resistance in *Phaseolus vulgaris* L.

5. Cameroon--Pest Management Strategies for Optimizing Cowpea Yields in Cameroon--University of Georgia (lead institution)--Goal: U.S.--to identify behavior modifying chemical potential for management of major cowpea insect pests and to characterize the chemical and ecological nature of plant resistance; Cameroon--To identify key cowpea insect pests and their biology within the principal cowpea-producing areas of northern Cameroon; to evaluate cowpea cultivars for resistance to facilitate breeding for resistance; to identify factors within cropping systems that affect insect-plant relationships; to develop and evaluate pest management methods suitable for small farmers in northern Cameroon; and to train Cameroonian students and technicians for entomological research.

6. Dominican Republic--Biology, Epidemiology, Genetics, and Breeding for Resistance to Bacterial and Rust Pathogens of Beans (*Phaseolus vulgaris* L.)--University of Nebraska (lead institution)--Goal: To develop methodology, to identify pathogen strain variation and resistant germplasm, and to determine genetic information and strategy that will lead to the incorporation of high levels of more stable resistance to bacterial and rust pathogens.

7. Dominican Republic--Improvement of Bean Production in the Dominican Republic Through Breeding for Multiple Disease Resistance--University of Puerto Rico (lead institution)--Goal: To produce multiple disease resistant bean germplasm in order to reduce losses due to diseases; to increase yield stability of beans in the Dominican Republic; and to preserve or improve the agronomic characteristics, yield, and quality of bean varieties having the preferred seed type for the Dominican Republic in order to assure the efficient production of a crop that will meet the acceptance and fulfill the nutritional requirements of the population.

8. Ecuador--Agronomic, Sociological, and Genetic Aspects of Bean Yield and Adaptation--Cornell University (lead institution)--Goal: To determine the biological, environmental, economic, and social roles of bean production in the farming systems of small farms; to develop methods of determining the merit of potentially useful bean production practices using research conducted under the management system and the environment of small farms; to determine which crops in bean intercropping systems compete the most, or provide the highest return from, the application of limited resources such as fertilizer; and to develop credible procedures for measuring or estimating the degree of acceptance of potential new practices by small farmers and determine the merit of the feedback of such information in establishing research objectives.


10. Honduras--Improvement of Bean Production in Honduras Through Breeding for Multiple Disease Resistance--University of Puerto Rico (lead institution)--Goal: see Dominican Republic (7) above.

11. INCAP--Improved Biological Utilization and Availability of Dry Beans--Washington State University (lead institution)--Goal: To improve availability, utilization, and nutritional quality of dry beans for human consumption in developing countries.
12. Kenya--Improvement of Drought and Heat Tolerance of Disease Resistant Beans in Semi-arid Regions of Kenya--University of California, Davis (lead institution)--Goal: To develop high yielding, disease resistant cultivars of beans that are tolerant of the semi-arid conditions in Kenya and suitable for cultivation by smallholder families.

13. Nigeria--Appropriate Technology for Cowpea Preservation and Processing and a Study of Its Socio-Economic Impact on Rural Populations in Nigeria--University of Georgia (lead institution)--Goal: To assess patterns of cowpea utilization in Nigeria and elucidate the associated socio-cultural and socio-economic factors; to develop a package of appropriate technologies adapted specifically to address identified constraints to cowpea utilization; and to develop policy guidelines to foster efficient utilization of cowpeas through the promotion of consumption, rural industries, and the associate linkage to rural/urban markets and to farming activities in rural areas.

14. Senegal--A Program to Develop Improved Cowpea Cultivars for Production and Utilization in Semi-arid Zones--University of California, Riverside (lead institution)--Goal: To develop cowpea production systems that have increased grain production and yield stability for subsistence farmers in hot, semi-arid zones.

15. Tanzania--Breeding Beans for Disease and Insect Resistance and Determination of Economic Impact on Smallholder Farm Families--Washington State University (lead institution)--Goal: To develop high yielding disease and insect resistant cultivars of beans for the smallholder family, and to assess the economic impact of the new cultivars and/or production or storage practices on smallholder farm families, especially on women’s roles in the production, consumption, and marketing process.

Other projects for Malawi, Mexico, and Nigeria are reported as MSU projects on subsequent pages.

Cooperating Institutions:
Botswana--Ministry of Agriculture, Department of Agricultural Research; Peace Corps.
Brazil--Empresa Brasileira de Pesquisa Agropecuario (EMBRAPA), Centro Nacional de Pesquisa de Arroz e Feijao (CNPAPF)
Cameroon--Institut de la Recherche Agronomique (IRA)
Dominican Republic--Secretaría de Estado de Agricultura (SEA), Centro Sur de Desarrollo Agropecuario (CESDA)
Ecuador--Instituto Nacional de Investigaciones Agropecuarias (INIAP)
Guatemala--Instituto de Ciencias y Tecnología Agrícola (ICTA)
Honduras--Escuela Agrícola Panamericana (EAP)
INCAP--MSU, Kansas State University, Colorado State University, U.S. Department of Agriculture, Tropical Agriculture Research Station, University of Puerto Rico, Instituto de Nutricion de Centroamerica y Panama (INCAP)
Kenya--University of California at Riverside, World Hunger Through Response Farming, University of Nairobi, National Horticultural Research Station--Thika
Nigeria--University of Nigeria--Nsukka, Departments of Food Science and Technology, Home Science and Nutrition, Sociology/Anthropology, Rural Sociology
Senegal--University of California at Davis, University of Arizona, Institut Senegalais de Recherches Agricoles (ISRA)
Tanzania--University of Illinois, Sokoine University of Agriculture (formerly the Faculty of Agriculture, Forestry and Veterinary Science, University of Dar es Salaam, Morogoro), University of Dar es Salaam

Location of Documentation: All project documents are located in the Bean/Cowpea CRSP Management Office, 200 Center for International Programs.
Project Summary Comment: The Bean/Cowpea Collaborative Research Support Program (CRSP) provides for research on constraints of bean and cowpea production and utilization in 13 countries. Michigan State University serves as the management entity for this program, which is jointly funded by AID and the participating national research institutions. Its goal is to address hunger and malnutrition problems through collaborative research between U.S. and counterpart scientists in Africa and Latin America. The project objectives are to increase production and consumption of beans and cowpeas as important sources of protein.

Based on a global plan developed in concert with host country colleagues, the CRSP is made up of a series of discrete but integrated international research projects initiated in 1980, involving teams of scientists collaborating in a study of designated facets of the overall plan. Research topics include genetic improvement for yield, disease, and insect resistance; evaluation of cooking requirements and nutritional quality; health effects of consumption; and socio-economic implications of production, consumption, and concomitant constraints. Three of the eighteen CRSP projects (in Nigeria, Malawi, and Mexico) are conducted by MSU scientists.

Fifteen U.S. research institutions participate in the CRSP, including one 1890 university and the Boyce Thompson Institute for Plant Research.

Every CRSP project that includes production research requires that a significant part of its field research be performed on smallholders' fields, where the relationship and fit with the indigenous farming system is a paramount consideration. Constraints are addressed with a serious concern for appropriateness and relevance, and with a sensitivity to the implications of applying the findings among women who play an integral role as producers, processors, and consumers of beans and cowpeas. A Women in International Development specialist is actively involved in this collaborative program.

In addition to primary research objectives, CRSP projects include training for host country participants, creation of CRSP-wide linkages, and a significant institution building component.

Many publications have been generated during the course of the program. Listings are available in the Bean/Cowpea CRSP Management Office, 200 Center for International Programs.
BEAN/COWPEA COLLABORATIVE RESEARCH SUPPORT PROGRAM--MALAWI PROJECT (3)

GENETIC, AGRONOMIC AND SOCIO-CULTURAL ANALYSIS OF DIVERSITY AMONG BEAN LANDRACES

Donor: Agency for International Development, Title XII
Contract No.: AID/DSAN-XII-G-0261
Account No.: 71-4267
Location: Malawi
Duration: July 1981-September 1985 (extension to be negotiated June 1985 to run until September 1988)
Budget: $552,692 (as part of the overall budget of $14,700,000)

Key MSU Faculty: Wayne Adams, Co-Principal Investigator (Crop & Soil Science);
Patricia Barnes-McConnell, Co-Principal Investigator (CRSP Management Office);
E. Bortei-Doku (Sociology)

Project Goal: Same as Overall Program Goal

Project Plans/Objectives:
1. To discover those genetic, agronomic, and socio-cultural forces that account for the persistent pattern of bean landrace diversity in Malawi.
2. To distill from the findings and experiences in Malawi a set of principles concerning the acceptance criteria that must be met in attempts to replace traditional landraces by improved cultivars or populations.
3. To bring out the integral role of Malawian farm women in cultivar (landrace) evaluation, production, utilization, and acceptance.
4. To provide educational and training opportunities for Malawian and U.S. scientists and students.

Cooperating Institutions: Bunda College of Agriculture, Malawi

Location of Documentation: Project documents are available from the Bean/Cowpea CRSP Management Office, 200 Center for International Programs, and through Wayne Adams (Crop & Soil Science).

Project Summary Comment: The main thrust of this project has been to quantify the genetic structure of Malawian bean landraces, and to explain the origin and maintenance of genetic diversity on genetic, agronomic, and socio-cultural grounds. Several publications on both the genetic basis of landraces and the socio-cultural reasons for the cultivation of certain landraces are available from the Bean/Cowpea CRSP Management Office, 200 Center for International Programs.
BEAN/COWPEA COLLABORATIVE RESEARCH
SUPPORT PROGRAM--MEXICO PROJECT (4)

IMPROVING RESISTANCE TO ENVIRONMENTAL STRESS
IN BEANS THROUGH GENETIC SELECTION FOR
CARBOHYDRATE PARTITIONING AND EFFICIENCY
OF BIOLOGICAL NITROGEN FIXATION

Donor: Agency for International Development, Title XII
Contract No.: AID/DSAN-XII-G-0261
Account No.: 71-4270
Location: Mexico
Duration: July 1982-September 1985 (extension to be negotiated June 1985 to run until September 1988)
Budget: $277,354 (as part of the overall budget of $14,700,000)

MSU Faculty Involvement: Wayne Adams, Principal Investigator (Crop & Soil Science)

Project Goal: Same as Overall Program Goal

Project Plans/Objectives:
1. To determine patterns of starch and nitrogen accumulation and storage in leaf, petiole, stem, and root and their remobilization in representative architectural types growing under different conditions of drought and nitrogen stress.
2. To determine the relationship of starch accumulation and remobilization to rate of seed filling in selected architectural types under stress and non-stress environments.
3. To determine, in selected genotypes, the effects of photoperiod and temperature changes on carbohydrate storage-remobilization and on N₂ fixation.
4. To identify, through screening and selection in populations of Mexican seed types and from other sources, bean genotypes having high and low levels of tolerance to drought and of biological nitrogen fixation.
5. To determine whether it is feasible to select for both drought resistance and high nitrogen-fixing capability concurrently in the same population and whether genotypes superior in both characteristics simultaneously can be produced.
6. To assess the importance of certain plant growth and phenological characteristics on parameters of N₂ fixation in beans.
7. To develop N₂ fixation profiles for drought tolerance selections from CIAT, Mexico and other sources for normal and drought conditions.
8. To evaluate rhizobium strain performance under glasshouse and field conditions and select strains of rhizobium efficient in N₂ fixation that are competitive with native strains and persistent over time.
9. To estimate genetic parameters of traits related to or conferring differences in drought resistance and nitrogen-fixing ability, including heritability, levels of dominance, and genetic correlations.
10. To use the information and genetic materials obtained in the experimental phases as sources of improved germplasm in variety development programs.
11. To involve young scientists, male and female, in the research program and in more structured training and academic studies to prepare them as qualified professionals.

Cooperating Institutions: University of Minnesota, Instituto Nacional de Investigaciones Agrícolas (INIA)
Location of Documentation: Project documents can be obtained from the Bean/Cowpea CRSP Management Office, 200 Center for International Programs, or through Wayne Adams (Crop & Soil Science).

Project Summary Comment: Experimentation on the above-defined objectives has been conducted and a number of publications has been generated on drought tolerance of the common bean and effects of water stress on dry beans. These are available from the Bean/Cowpea CRSP Management Office, 200 Center for International Programs.
Medical Aspects of Feeding Cowpeas to Children

Donor: Agency for International Development, Title XII
Contract No.: AID/DSAN-XII-G-0261
Account No.: 71-4259
Location: Nigeria
Duration: September 1981-September 1985
Budget: $238,901 (as part of the overall budget of $14,700,000)

MSU Faculty Involvement: Pericles Markakis, Co-Principal Investigator (Food Science & Human Nutrition); Wanda Chenoweth, Co-Principal Investigator (Food Science & Human Nutrition); D. Greenbaum (Medicine); H. Sadoff (Microbiology & Public Health)

Project Goal: Same as Overall Program Goal

Project Plans/Objectives:
1. To explore a possible relationship between eating cowpeas and gastrointestinal problems in young children.
2. To identify the factors present in cowpeas that may cause the problems.
3. To remove these factors from cowpeas so that children may benefit from this otherwise nutritious food.

Cooperating Institutions: At the University of Jos in Nigeria, the Departments of Pediatrics, Medicine and Community Medicine; at the University of Ibadan in Nigeria, the Departments of Human Nutrition and Food Science.

Location of Documentation: Project documents can be obtained from the Bean/Cowpea CRSP Management Office, 200 Center for International Programs, or through P. Markakis (Food Science & Human Nutrition).

Project Summary Comment: Survey results, which show that a small proportion of young children react adversely to cowpea intake, are being supplemented with controlled feeding tests. Breath hydrogen studies with adults will also continue, as well as those on anti-nutritional factors (lectins, trypsin inhibitors, and undigestible oligosaccharides). Ultimately, genetic, physical, chemical and/or biochemical means of removing the offending constituents from cowpeas will be sought.
BELIZE LIVESTOCK FEEDS

Donor: Midwestern Universities Consortium for International Activities (MUCIA)  
Heifer Project International, Partners of the Americas, Government of  
Belize, CARE  

Contract No.: MUCIA Grant 786  
Account No.: 71-4205  
Location: Belize  
Duration: June 1976-June 1981 (with some activities still being conducted)  
Budget: $280,000  

Key MSU Faculty: R. Deans, Director (Animal Science); D. Ullrey (Animal Science)  

Project Goals: To maximize the use of local feedstuff resources available in Belize  
to provide alternative ration formulations for developing a viable livestock feeds  
industry in order to minimize feed importation and use low-cost local feedstuffs in  
the development of livestock rations that would perform satisfactorily and that would  
allow farmers to engage in animal production with a greater chance of doing so  
profitably.  

Project Plans/Objectives:  
1. To conduct experiment station-based research to formulate and test least-cost  
rations under controlled conditions.  
2. To conduct field trials of recommended rations at local farm sites to test  
extensively the rations that gave consistent economical performance at  
station-based trials.  
3. To develop a feedstuff aggregation, feed mixing, and distribution capability  
that will be competitive and efficient enough so as to allow farmers to share in  
the savings of a new feed program.  

Cooperating Institutions: Belize Ministry of Agriculture and Lands, Ministry of  
Social Development, Labor and Welfare, Development Finance Corporation; Heifer  
Project International; Partners of the Americas; Belize 4-H; University of Wisconsin  

Location of Documentation: Project documents are available from R. Deans (Animal  
Science).  

Project Summary Comment: The excellent relations developed between MSU and the  
people and Government of Belize have been the basis for the extension of activities  
beyond the expiration date of the contract. The ability of the participants to  
cooperate in finding solutions to livestock feeding problems has led to the  
development of a number of low-cost technological devices that are being made  
available to farmers with resource constraints. The solar fish dryer developed in  
the course of this project has been further developed for cassava drying and will be  
made available throughout the Caribbean to assist in reducing the cost of livestock  
feedstuff.
BRAZIL--AUDIO VISUAL

Donor: Agency for International Development
Contract No.: AID-c-1699
Account No.: 71-2021
Location: Brazil
Duration: August 1960-December 1965
Budget: $484,285

Key MSU Faculty: Charles Schuller, Coordinator (Education)

Project Goals: To provide advice and assistance for the purpose of establishing an audio visual training center within the Regional Education Research Center in Sao Paulo; to assist in the development of procedures for extending the services of the Audio Visual Center to appropriate educational institutions.

Cooperating Institutions: Federal Education Research Center, University of Sao Paulo, Coronet Films, Jam-Handy Films, Encyclopedia Britannica Films, Society for Visual Education

Location of Documentation: All documents are located in University Archives and Special Collections, Main Library.

Project Summary Comment: The following was excerpted from Education & World Affairs, The University Looks Abroad, New York: Walker & Co., 1965.

MSU's Audio-Visual Center was involved in a cooperative effort with Brazilians to improve the instructional materials in Brazilian schools and universities and in industrial and professional training.

This project grew largely out of the personal involvement of Charles F. Schuller, the director of the A-V Center at East Lansing. Schuller spent two months in Brazil in the summer of 1960 at the invitation of the International Cooperation Administration (forerunner of the U.S. Agency for International Development) colleague, who suggested he explore what MSU might do to prepare instructional materials not available in Brazil or translated into Portuguese. Schuller returned to MSU convinced that there was a role for audio-visual techniques in the underdeveloped areas, and on the strength of the ICA contract MSU was authorized to establish a new Brazilian Audio-Visual Center located on the University of Sao Paulo campus.
BRAZIL--GRADUATE AGRICULTURE EDUCATION
(Programa de Educacao Agricola Superior-PEAS)

Donor: Ministry of Education and Culture, Government of Brazil under loan from the Agency for International Development

Contract No.: AID Loan 512-L-090
Account No.: 71-3890
Location: Brazil
Duration: November 1974-June 1978
Budget: $7,590,047

Key MSU Faculty: John Hunter, Co-Director (Latin American Studies Center/Agricultural Economics) and Irving Wyeth, Co-Director (Institute of International Agriculture); K. Lawton (Crop & Soil Science); M. Weber and D. Fienup (Agricultural Economics)

Project Goals: To expand and improve graduate education in Brazil, particularly in agriculture (broadly defined) with heavy overtones in university planning and administration by providing professional, technical, and administrative services.

Project Plans/Objectives:
1. To improve the planning and coordination of the Brazilian graduate education system.
2. To create an effective central mechanism for improved planning and coordination of graduate education in agriculture.
3. To develop effective university planning structures at six participating graduate centers.
4. To assist in the successful administration, implementation, and evaluation of graduate education (teaching and research) at the graduate centers.
5. To assist such graduate centers to increase their capacity to help lesser developed institutions concerned with graduate and undergraduate education in agriculture.
6. To help upgrade and strengthen the libraries of Brazilian graduate schools.
7. To assist in the strengthening of administrative management, coordination, and planning capability within the Central Planning Unit (UCAP) of the Ministry of Education and Culture (MEC), and at the participating Brazilian universities.
8. To assist UCAP in developing a planning, management, and coordination evaluation system for program activities.
9. To assist UCAP in the development of systems to be used by the Department of University Affairs (DAU) and participating universities for administering and financing graduate programs.
10. To assist University coordinators and staff in development of curricula and, if and when necessary, in expanding existing courses.
11. To participate in teaching, advising, and research activities of the graduate courses as requested.
12. To provide in-service training to Brazilian staff of participating institutions in all areas of program activity.

Cooperating Institutions: Ohio State University, Purdue University, University of Illinois, University of Wisconsin, Utah State University, University of Arizona, University of California-Davis, University of Florida, University of Georgia; Ministry of Education and Culture; six Brazilian universities, including Rio Grande do Sul, Vicos, Minas Gerais, Rural of Rio de Janeiro, Ceara and the University of Sao Paulo
Location of Documentation: Project Reports are located in University Archives and Special Collections, Main Library; information can be obtained from J. Hunter (Agricultural Economics).

Project Summary Comment: One of MSU's major institution building experiences was the project of cooperation with the Brazilian Ministry of Education and Culture to provide professional, technical, and administrative services to support the development and execution of the Program for Higher Agriculture Education. Assistance was provided to the Ministry’s Department of University Affairs and six Brazilian University Graduate Centers for the expansion and improvement of graduate programs in agriculture and related fields, as well as the establishment and development of improved planning, management, and coordination of graduate education in agriculture at participating Brazilian universities.

MSU, as prime contractor for this USAID loan agreement, formed an informal consortium consisting of seven U.S. universities having experience in Brazil, each of which contributed significantly to project goal achievement. Overall inputs included assistance in planning, programming, implementation, evaluation, and administration of graduate programs; development of curricula; participation in teaching, advising, and research activities of graduate courses; development of an overall library plan including procedures for library purchases and the shipment of 23,000 volumes; and in-service training to Brazilian staff of participating universities in all areas of program activity.

A major feature of the project was participant training at the degree and non-degree levels. A total of 200 Brazilians received specialized training at MSU and 27 other U.S. universities, 148 of whom pursued graduate degree programs. Thirty-seven of these 148 earned degrees at MSU. Non-degree training included postdoctoral training programs, visitation, attendance at professional meetings, and participation in short courses in Brazil and at MSU. A unique aspect of this project was the linking of the six University Graduate Centers with counterpart undergraduate schools of agriculture at other Brazilian universities. The project provided technical assistance, staff training, and other services to these institutions to improve and expand their capacity to train personnel for the agricultural sector.
BRAZIL--INSTITUTION BUILDING (BUSINESS ADMINISTRATION)

Donor: Ford Foundation, Government of Brazil
Contract No.: Not available
Account No.: Not available
Location: Brazil
Duration: 1958-October 1965
Budget: $10,467 and other amounts from the Government of Brazil

Key MSU Faculty: Donald A. Taylor, Director (Marketing & Transport Administration); C. Noble, Director (Institute for International Business Management Studies)

Project Goals: To determine the extent to which the discipline of business administration is institutionalized throughout the Brazilian higher education system; to identify elements in the institutionalizing process that may be useful in planning more effective use of resources in the diffusion of ideas; to expand education in business administration to the University of Rio Grande do Sul and the University of Bahia.

Cooperating Institutions: University of Bahia, University of Rio Grande do Sul; School of Business Administration, Sao Paulo; Universities of Indiana, Syracuse and Pittsburgh

BRAZIL--SCHOOL OF BUSINESS ADMINISTRATION (SAO PAULO)

Donor: International Cooperation Administration (forerunner of Agency for International Development), Getulio Vargas Foundation

Contract No.: 1. ICAw-876 (main MSU contract), 2. ICAc-1130 (expanded)

Account No.: 1. 71-2028, 2. 71-2025

Location: Brazil

Duration: 1953-August 1966

Budget: $799,107

Key MSU Faculty: Dean Alfred Seelye, Coordinator; Jack F. Jackson, Assistant Coordinator; D. Taylor, Chief of Party (Marketing & Transportation); C. Frost (Psychology)

Project Goals: To assist in establishing Latin America's first school of business administration; to expand business education into federal universities; to encourage and guide practice in research.

Project Plans/Objectives:
1. To help create three schools of business administration in Sao Paulo, Salvador, and Porto Alegre.
2. To help integrate the teaching of business administration at the college level into the higher education systems of Brazil.
3. To train Brazilian faculty at the MSU Graduate School of Business Administration.
4. To provide advice in developing and using teaching methods, aids, materials, and other resources.

Cooperating Institutions: Getulio Vargas Foundation, University of Rio Grande do Sul, University of Bahia

Location of Documentation: Original letter of agreement with ICA, semi-annual reports, etc., are located in University Archives and Special Collections, Main Library.
BURMA: MAIZE AND OILSEEDS

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development

Contract No.: MUCIA Contract AID/ASB-C-2046, with Ohio State University as Lead Institution

Account No.: Not available

Location: Burma

Duration: September 1982-October 1986

Budget: MSU share to be determined

Key MSU Faculty: Kim Wilson (Institute of International Agriculture)

Project Goals: To bring about a rapid rate of adoption of high-yielding seed varieties among an estimated 200,000 farm families in 28 project townships, including the following crops: groundnuts, sesamum, sunflowers, rapeseed, maize, and soybeans.

Cooperating Institutions: Ohio State University (lead Institution), Texas A&M University, and MUCIA

Location of Documentation: Information on this project may be obtained from Kim Wilson, Deputy Director, Institute of International Agriculture, 101 Agriculture Hall.

Project Summary Comment: As the first step in a long-term agricultural sector strategy in Burma, AID has initiated a maize and oilseed production project to run for five years. Participants recruited by MUCIA are providing assistance in agronomy, water management/irrigation, seed technology, and crop protection. To date, MSU’s role has been advisory to MUCIA, but it is envisioned that certain faculty members will be participating in either a long- or short-term capacity. When this occurs, a contract and budget will be established, as well as specific objectives faculty will pursue.
CAMEROON CENTRES FOR FARMER FAMILY TRAINING

Donor: International Union for Child Welfare (Geneva)
Contract No.: IUCW/Geneva
Account No.: 71-4211
Location: Cameroon
Duration: August 1980-July 1981
Budget: $33,383

Key MSU Faculty: J. Bingen, Director (Agricultural Economics)

Project Goals: To perform an evaluation of the centers for training farming families.

Project Plans/Objectives:
1. To design and test a questionnaire.
2. To identify villages for study in the area of Dadjamka.
3. To identify random samples of non-trainees in the selected villages.
4. To define the nature and scope of the women's component of the evaluation.
5. To agree on responsibilities for providing logistical support during the study.

The evaluation included the analysis of diffusion and training in Dadjamka, and of diffusion only in Goyang.


Location of Documents: Budgets and reports are located in the Agricultural Economics Projects Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
CARIBBEAN AGRICULTURAL EXTENSION

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development

Contract No.: 1. UWI/MUCIA No.1; 2. MUCIA contract AID/LAC-C-2054, with the University of Minnesota as Lead Institution

Account No.: Not available

Location: Antigua, Belize, Dominica, Montserrat, St. Kitts/Nevis, St. Lucia, St. Vincent


Budget: MSU share to be determined

Key MSU Faculty: Kim Wilson (Institute of International Agriculture); D. Meaders and F. Bobbitt (Agricultural Education)

Project Goals: To improve the economic and social well-being of small farm households in the Caribbean region.

Project Plans/Objectives:
1. To increase the effectiveness of national and public private sector extension systems in six Eastern Caribbean states and Belize.
2. To improve the long-term effectiveness of the University of the West Indies to backstop and support national extension services.

Phase 1 Plans/Objectives:
1. To establish UWI Faculty of Agriculture Outreach Offices in the Leewards, Windwards, and Belize.
2. To appoint jointly with each Minister of Agriculture a local staff liaison person assigned full time to the Project.
3. To establish and convene a Regional Agricultural Extension Coordinating Committee (RAECC).
4. To establish and convene in each country a National Extension Improvement Planning Committee appointed by the Minister of Agriculture.
5. To assist each participating territory to conduct an institutional analysis of its national extension service.
6. To assist each participating territory to develop a National Agricultural Extension Improvement Plan.
7. To conduct an analysis of regional agricultural extension needs, including examination of the role of UWI in backstopping National Extension Systems.

Phase 2 Plans/Objectives:
1. To increase the efficiency of the frontline extension workers in meeting the development needs of small farmers by creating administrative and organizational changes to support field agents, and by providing critical technical training and back-up support to facilitate achievement of required increased efficiency.
2. To provide fellowships for diploma level technical training in agriculture in regional agricultural schools.
3. To provide fellowships to selected extension officers, especially communications and training officers, for a one year UWI post-diploma course in agricultural extension and communication techniques.
4. To provide long- and short-term technical assistance, especially for in-service training and program development.
5. To provide agricultural extension demonstration and communications equipment and vehicles.
6. To strengthen the outreach capability of the UWI Faculty of Agriculture to permit continuing and increased long-term technical support for these national extension services after the life of the project.

Cooperating Institutions: University of the West Indies, Department of Agricultural Extension, Ministries of Agriculture in each country; University of Minnesota (lead institution)

Location of Documentation: All project documents are available through Kim Wilson, Institute of International Agriculture, 101 Agriculture Hall.

Project Summary Comment: Beginning in 1980, MUCIA and UWI extension professionals worked with local staff in the Caribbean to conduct a detailed analysis of the extension systems in each of the participating states. This work led to development of a national extension planning committee and a national extension improvement plan in each country. With planning complete, program implementation then commenced. Support to the Caribbean nations takes three main forms: training, equipment, and organizational development. Training occurs at all levels, from agents to directors, and is both short- and long-term. Equipment emphasizes communications among these widely separated locations, but also includes vehicles and many farm implements. Organizational development focuses on increasing professionalism and program development approaches, including job descriptions and work plans.
CARIBBEAN AGRICULTURAL RESEARCH & DEVELOPMENT INSTITUTE (CARDI)

Donor: CARDI with funds from the Agency for International Development
Contract No.: Memorandum of Agreement
Account No.: 21-2021
Location: Caribbean
Duration: February 1982-open ended
Budget: $250,000 (budget requested in proposal)

Key MSU Faculty: R. Deans, Director (Animal Science); D. Ullrey (Animal Science); M. Esmay (Agricultural Engineering)

Project Goals: To develop alternative feedstuffs of local origin to be used in small farm farming systems.

Location of Documents: The project proposal and memorandum of agreement are available from R. Deans (Animal Science).

Project Summary Comment: As a result of the Belize Livestock Feeds Project, a solar dryer, developed for fish drying, was redesigned to suit the needs of cassava drying. Once implemented, this project will expand the use of the dryer into other countries of the Eastern Caribbean. It will be used to produce locally-available livestock feedstuffs.
CARIBBEAN TECHNICAL SUPPORT TO MISSION

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development/Barbados Regional Mission

Contract No: AID/LAC-0000-1-00-2030-00
Account No: Work Orders 1 and 7--71-3831; 2 and 8--71-3832; 3--71-3833; 4--71-3834; 5--71-3835; 6--71-3836; 9--71-3830
Location: St. Vincent, Antigua, St. Lucia, St. Kitts/Nevis, Belize, Montserrat, Dominica, Grenada
Duration: June 1982-June 1985
Budget: $750,000 (to date)

Key MSU Faculty: Kim Wilson, Director (Institute of International Agriculture)

Project Goals: To provide technical support to the AID Regional Mission in Barbados in conducting agricultural assessments, designing agricultural projects, and providing other support as needed to assist in the design of agricultural development projects as part of the Caribbean Basin Initiative.

Project Plans/Objectives: To date, the following work orders have been initiated:
2. Antigua: Livestock Streptothrichosis Disease Assessment.
8. Caribbean Region: Portfolio Coordination--A Commodity Case Study.

Cooperating Institutions: MUCIA, ministries of agriculture in each of the participating countries

Location of Documentation: All project documents are located in the Institute of International Agriculture, 101 Agriculture Hall.

Project Summary Comment: MSU is the lead university in this MUCIA project to advise the AID mission on the Caribbean concerning formulation of strategies for agricultural development assistance in the region. Activities include 1) assessing and analyzing the agricultural sector to identify the principal constraints to development; 2) determining the best methods to alleviate constraints; 3) identifying key subsectors that are most likely to respond to increased attention and investment; and 4) designing projects for AID assistance to the public and private sectors to improve agricultural productivity, marketing efficiency, and policy formulation.

A bibliography of background documents and project publications has been developed and is available at the Institute of International Agriculture, 101 Agriculture Hall.
DONOR: U.S. Department of Education (Title VI)  
Contract No.: G-008 102141  
Account No: 71-0203 (1981-83); 71-0216 (1983-84); 71-0238 (1984-85)  
Location: MSU Campus  
Duration: August 1981-August 1986 (renewable)  
Budget: $127,000 (1981-82); $123,000 (1982-83); $104,000 (1983-84); $129,160 (1984-85); $135,418 (1985-86)  

Key MSU Faculty: Tom Carroll, Director  

Project Goals: To develop and disseminate knowledge relevant to understanding the processes of international social, political, economic, cultural, and technological changes from the perspective of the social sciences and liberal arts and to applying this understanding to key international development issues to the ultimate benefit of improving the quality of life throughout the world.  

Project Plans/Objectives:  
1. To foster interdisciplinary collaboration, research, and public service among faculty, visiting faculty, and scholars that will enhance the scholarly ambience related to the advanced study of international development at MSU.  
2. To develop, foster, and coordinate MSU curriculum offerings that concern international studies related in whole or in part to development.  
3. To work with academic departments and programs to assure the availability of a variety of graduate programs that incorporate an emphasis on development studies combined with technical expertise.  
4. To foster undergraduate instruction through general education programs, relevant degree programs, and specializations in order to achieve a well-rounded understanding of international development.  
5. To foster lifelong education programs to practitioners of international development.  
6. To foster programs of language instruction for faculty and students planning to pursue overseas research and technical assistance activities related to international development.  
7. To involve international students and faculty in the activities of the Center.  
8. To support and expand the holdings of the Library related to international development.  
9. To support and expand holdings in the software/data library of the MSU computer laboratory and the Center that are directly relevant to the research and teaching of international development.  
10. To maintain and foster ties with international institutions of higher learning and research.  
11. To stimulate communication among and with scholars in other institutions interested in international development.  
12. To disseminate knowledge about international development through Center publications and by fostering school, community, and media programs.  

As the result of an external evaluation conducted in 1984, CASID proposed the addition of several objectives in its request for funding dated December 1984. These
objectives include:
1. To design and teach a core, interdisciplinary course on international development theory and practice.
2. To develop joint master degree programs with professional schools.
3. To continue to develop opportunities for overseas studies in developing countries in the form of general education study tours, internships, and field research projects.
4. To design and implement a pilot program for Spanish language proficiency testing.
5. To focus the 1985-86 program of scholarly activities on the theme of U.S. Development Assistance: History, Philosophy, and Administration.
6. To improve the quality of academic information services provided by the CASID office.
7. To continue academic-year workshops and the summer institute for faculty at other Michigan institutions of higher education for the purpose of strengthening curriculum focusing on international development.
8. To strengthen library resources.
9. To contribute to the professional development of faculty and students.

Cooperating Institutions: The CASID governing body is made up of 115 Core Faculty members to ensure that the CASID network incorporates all social science and humanities departments. Additionally, CASID is integrally related to the Society for International Development, which organization has a world-wide membership.

Location of Documentation: All project documents, reports, budgets, etc., are available through Doris Scarlett, CASID Office, 307 Berkey Hall.

Project Summary Comment: CASID has undertaken a number of tasks in order to meet its goals. 1) Curriculum Development--grants to faculty to enhance the international development theme of their course offerings, travel support to faculty to make arrangements for specific programs, and promotion of and advisement on undergraduate course offerings; 2) Faculty Development--faculty travel grants, an annual CASID Faculty Scholar Award, and support for various projects of CASID Faculty Interest Groups; 3) Scholarly Activities--sponsorship of special seminars, the Distinguished Speaker Series, publication of Occasional Papers, and support for conferences; 4) Co-Curricular Activities--travel grants to graduate students, support of Model UN conference, and the creation of a graduate student directory of those interested in international development; 5) Campus Resource Strengthening--funding to the MSU library, the Non-formal Education Center (now International Networks in Education and Development), and sponsorship of seminars on international statistics; 6) Outreach--development of outreach network, consulting services to faculty at other universities, representation and displays at state and national conferences, and the sponsorship of several summer institutes; 7) Campus Networking Services--publication of the CASID Current, course lists, brochures and other informational materials relevant to academic programs in international development.

Publications of the CASID office are available through Doris Scarlett, CASID, 307 Berkey Hall. Persons interested in receiving the CASID Current on a weekly basis should also get in touch with Doris Scarlett.
Donor: U.S. Department of Education (Title VI)
Contract No.: G-008 102141
Account No.: 71-0217 (1983-84); 71-1239 (1984-85)
Location: MSU Campus
Duration: August 1981-August 1986 (renewable)
Budget: $13,934 (1981-82); $12,600 (1982-83); $12,500 (1983-84); $21,696 (1984-85); $40,799 (1985-86)

Key MSU Faculty: Tom Carroll, Director

Project Goals: To develop and disseminate knowledge relevant to understanding the processes of international social, political, economic, cultural, and technological changes from the perspective of the social sciences and liberal arts and to applying this understanding to key international development issues to the ultimate benefit of improving the quality of life throughout the world.

Project Plans/Objectives: To provide the opportunity to American graduate students to acquire a language spoken in countries of the developing world in order to enable them to conduct scholarly research in pursuit of a doctoral degree.

Location of Documentation: All project documents are available through Doris Scarlett, CASID Office, 307 Berkey Hall.

Project Summary Comment: To date CASID has awarded 10 Foreign Language and Area Studies Fellowships. During the 1985-86 academic year, funding has been received to award four more fellowships.
CENTER FOR TRAINING IN NATIONAL AND INTERNATIONAL MARKETING (CICOM)

Donor: Organization of American States, Government of Brazil, Getulio Vargas Foundation
Contract No.: Not available
Account No.: Not available
Location: Brazil
Duration: 1970-1972
Budget: $873,599 (budget requested in proposal)

Key MSU Faculty: K. Harrison, H. Riley, and M. Weber (Agricultural Economics)

Project Goals: To aid CICOM in obtaining its objectives to diffuse concepts of national market development and international marketing to relevant institutions in the member countries of the OAS, and to aid member country institutions to take the necessary steps to reorganize marketing systems for the purpose of promoting economic development.

Project Plans/Objectives:
1. To work closely with CICOM staff in revising training programs to be carried out both in Rio de Janeiro and in national seminars and workshops.
2. To prepare teaching materials from MSU/AID research programs adapted to CICOM training needs.
3. To participate in the teaching activities both at CICOM and in national seminars presented in OAS countries.
4. To continue research activity as part of the specific objective of CICOM as a means of training both staff and students.
5. To organize a publication activity to diffuse information to former trainees, official agencies and universities in OAS countries.
6. To develop a small library in the CICOM Center.

Cooperating Institutions: CICOM, Getulio Vargas Foundation

Location of Documentation: Information on this project can be obtained from H. Riley (Agricultural Economics).
CHINESE LANGUAGE FELLOWSHIP GRANT

Donor: U.S. Department of Education (Title VI)
Contract No.: 015-BH-30003
Account No.: 31-1562
Location: MSU Campus
Budget: 1. $25,156; 2. $30,864; 3. $37,180

Key MSU Faculty: Warren Cohen, Director (Asian Studies Center)

Project Goals: To provide fellowships to U.S. students to study Chinese language in order to enable them to conduct degree-required research in Chinese-speaking countries.

Location of Documentation: All project information is available from Lillian Kumata, Asian Studies Center, 101 Center for International Programs.

Project Summary Comment: Priority in choosing fellowship recipients is given to students in non-traditional disciplines (i.e., history, linguistics, and anthropology). It is desired that students from the fields of agriculture, economics, geography, and business be chosen. To date fellowships have been awarded to students in geography, business, history, and anthropology.
COLLABORATION IN TEACHING AND RESEARCH--CHILE

Donor: Under Negotiation
Contract No.: Memorandum of Understanding
Account No: Not available
Location: Chile
Duration: June 1984-June 1989
Budget: Under Negotiation

Key MSU Faculty: James Steffe (Agricultural Engineering)

Project Goals: To establish a program of academic collaboration between MSU and the University of Concepcion, Chile, for the purpose of developing teaching (for undergraduate and graduate degrees) and research programs.

Project Plans/Objectives:
1. To conduct faculty exchanges, as a principal part, for the benefit of teaching and carrying out joint research on projects planned together.
2. To develop specific projects/activities in the fields of agricultural engineering, horticulture, agricultural economics, botany and plant pathology, and crop and soil sciences.

Cooperating Institutions: Faculty of Agricultural Sciences and Forestry of the University of Concepcion

Location of Documentation: Correspondence and Memorandum of Understanding can be obtained from M. Esmay (Agricultural Engineering).

Project Summary Comment: Although not currently funded, this inter-institutional linkage holds the potential for the development of further MSU involvement in projects in Chile.
COLLABORATIVE RESEARCH
ON PARASITIC DISEASES IN SUDAN (1)

Donor: National Institute of Health (National Institute of Allergies and Infectious Diseases)
Contract No.: P01 AI16312-06
Account No.: 71-1290, 71-1016, 71-1180, 71-1316, 71-0453 (one for each year of project)
Location: Sudan
Duration: October 1979-August 1984
Budget: $1,555,545 (funds allocated on a yearly basis over the 5-year life of the project)

Key MSU Faculty: Jeff Williams; Director (Microbiology & Public Health); J. Bennett (Pharmacology & Toxicology); J. Jensen (Parasitology, Microbiology & Public Health); H. Newson (Entomology/Microbiology & Public Health); J. Kaneene (Large Animal Surgery/Medicine/Community Health Sciences); J. Hunter (Community Health Sciences/Geography); R.W. Leid, Jr. (Pathology/Vet Clinic Immunology Lab); T.W. Schillhorn-van-Veen (Animal Health Diagnostic Laboratory); C. Williams (Lab Animal Care)

Project Goals: To conduct a collaborative program of research designed to address key issues in the biology and immunology of onchocerciasis and malaria, and the pharmacology of schistosomiasis.

Project Plans/Objectives: There are four sub-projects, each with its own set of objectives:

Project 1--Schistosomiasis--Efficacy and Toxicology Associated with Antischistosomal Drugs
1. To evaluate the clinical efficacy, in the hospital and in the field, and toxicity of two new antischistosomal drugs.
2. To devise methods to lower the risks associated with other antischistosomal drugs.
3. To compare two different chemotherapeutic methods for controlling schistosomiasis in southern Sudan, if the appropriate drug is available.

Project 2--Schistosomiasis--Ecology and Distribution of Snails Serving as Intermediate Hosts for Schistosomes in the Bahr El Ghazal Area of the Sudan
To support and coordinate investigations in snail biology with the work in epidemiology in the other two programs--malaria and onchocerciasis--in Sudan, incorporating a wide spectrum of habitats ranging from open savannah to streams in forested terrain.

Project 3--Malaria--Search for Strains of Plasmodium falciparum Resistant to 4-Aminoquinolines in Sudan Using in Vitro Culture Techniques
To utilize the newly developed technology of in vitro cultivation of Plasmodium falciparum to determine the level of naturally occurring resistance by these parasites to 4-aminoquinolines, primarily chloroquin and amodiaquin, and the newly developed drug, Mefloquin, in a semi-immune population of an endemic area that has yet to report clinical resistance to these compounds.

Project 4--Onchocerciasis--Immunology and Immunopathology of Onchocerca volvulus Infections
To characterize some of the immunologic and immunopathologic mechanisms involved in host reactions to Onchocerca volvulus infections.
Laboratory research on the identification and purification of *O. volvulus* antigens and their interactions with humoral and cellular components of the host response, on the analysis of anti-schistosome pharmacologic agents, their metabolites and their effects on host systems, and on the growth of *P. falciparum* for antigenic characterization and drug responsiveness is conducted in the project-equipped quarters of the Central Laboratories of the Department of Health of the Government of Sudan.

Cooperating Institutions: Central Laboratory, Ministry of Health, Khartoum, Sudan and Wau Provincial Lab, Bahr El Ghazal, Sudan

Location of Documentation: All project documents, including original proposal, budgets, and annual reports are located in the Sudan Project Office, Room A22, Veterinary Clinic, Mike Boland, Administrator.

Project Summary Comment: Participants in the project have experienced a number of breakthroughs. Many of the project's accomplishments have been documented either in papers presented at meetings of the American Society of Tropical Medicine and Hygiene or in publications. For a list of publications available, contact Mike Boland, Sudan Project Office, 22A Vet Clinic.
COLLABORATIVE RESEARCH ON PARASITIC DISEASES IN SUDAN (2)

Donor: National Institute of Health (National Institute of Allergies and Infectious Diseases)
Contract No.: 2 P01 AI16312-06
Account No.: 71-1078 (first year of project)
Location: Sudan
Duration: September 1984-September 1989
Budget: $1,422,574 (funds available on a yearly basis over the 5-year life of the project)

Key MSU Faculty: Jeff Williams, Director (Microbiology & Public Health); J. Bennett (Pharmacology & Toxicology); J. Jensen (Parasitology, Microbiology & Public Health); H. Newson (Entomology/Microbiology & Public Health); J. Kaneene (Large Animal Surgery/Medicine/Community Health Sciences)

Project Goals: To carry forward a collaborative program of tropical parasitic disease research on several basic problems that underlie the major health priorities of the Republic of Sudan. The four widespread and important human parasitoses that will be addressed are schistosomiasis, malaria, leishmaniasis, and onchocerciasis.

Project Plans/Objectives: There are four sub-projects, each with its own set of objectives.

Project 1--Schistosomiasis--Efficacy and Toxicology Associated with Antischistosomal Drugs (to study the pharmacology and toxicology of Oltipraz and Amoscanate)
1. To characterize the mechanism(s) by which cysteine increases blood levels of Oltipraz in fasting animals.
2. To reformulate Oltipraz so that food does not have to be co-administered with the drug to obtain antischistosomal activity.
3. To determine the appropriate dosage for the reformulated Oltipraz in infected humans.
4. To analyze the effects of Oltipraz on the biochemical and physiological processes of adult schistosomes.
5. To study the antischistosomal efficacy and safety of Amoscanate in patients with intestinal and urinary schistosomiasis.
6. To study the action of Amoscanate on adult schistosomes.

Project 2--Malaria--Immune Mechanisms in Human Infection with Plasmodium falciparum in Sudan (to develop assays, based upon the use of in vitro forms of P. falciparum, which reflect the immune status of individuals living in malarious areas of Sudan)
1. To determine whether an assessment of immunity to clinical malaria, ascertained by detailed oral medical histories with regard to malaria-like symptoms supported by hepatosplenic indices and complete hematologic characterization, correlates with immunologically assayed parameters.
2. To characterize the serum factor(s) responsible for induction of crisis forms in cultured P. falciparum and determine whether the factors are the result of an acquired immune response to malaria.
3. To substantiate our classification of the indigenous population in holoendemic and hyperendemic regions of Sudan, in relation to immunity to clinical malaria.
4. To characterize antibodies, by classes and subclasses, that may be antiplasmodial on the basis of their ability to neutralize merozoites, retard intraerythrocytic parasite development or aid in phagocytosis of parasitized erythrocytes by opsonic activities.

5. To monitor from wet to dry seasons, from year to year, the immunological status of individuals who have demonstrated resistance with the specific aim of assessing the maintenance of resistance and the variations in immune parameters associated with the periods of intense exposure to malaria or periods of little or no malaria transmission.

6. To determine the extent to which immune activation or suppression produced by heterologous parasitic infections may have effects on functional immunity to malaria and its in vitro correlates.

Project 3--Onchocerciasis--Immunology and Immunopathology of Onchocerca volvulus Infections (to establish some of the major characteristics of the immunological and parasitological status of patients in various endemic regions of Sudan who are afflicted with the clinical manifestation of onchocerciasis)

1. To characterize the parasitological, clinical, and immunological features of O. volvulus infections in village populations in each of the major foci in Sudan.

2. To develop a panel of immunoassays which reflect the immune status of infected persons specifically with regard to antigens of O. volvulus but also with respect to Simulium sp. and intercurrent parasitic infections, with special attention given to IgE-mediated reactions to the parasites and their vectors.

3. To establish the parasitological and clinical effectiveness of antifilarial therapies in patients whose syndromes are representative of those characterizing major foci of the disease nationally.

4. To relate immune status changes to the patient's response to therapy, so as to determine the predictive value of immunological assessment and define possible ameliorative therapies necessary to supplement anthelmintic usage.

5. To determine if immune responses against infective developmental stages of O. volvulus in Simulium sp. play any role in pathogenesis of lesions, or can be of value in the practical detection of infections in vector samples.

Project 4--Leishmaniasis (subcontracted to University of Arizona)--Immune Regulation in Visceral Leishmaniasis

1. To define the clinical features of patients with kala azar, particularly how infantile kala azar differs in its manifestation from adult disease.

2. To define the effect of current treatment regimen with pentavalent antimony on the clinical and laboratory status of patients with kala azar, particularly addressing the question of frequency of treatment failure and their potential causes.

3. To define the frequency of post-kala azar dermal leishmanoid by judiciously following the patients after treatment with pentostam.

4. To define the level of general immunological competence by characterizing the number of operating lymphocytes, T cells, B cells, T suppressor cells, T helper cells, and natural killer cells.

5. To define the mechanisms by which general and/or specific leishmanial immune suppressive mechanisms occur, particularly addressing the impact of antibody and antibody classes, of immune complexes and of circulating antigens on the ability of lymphocytes in vitro to respond with clonal expansion to leishmanial antigens.

6. To understand the interplay of monocytes and subfractions of lymphocytes in the clinical expressions of visceral leishmaniasis.
7. To understand the syndrome of post-kala azar dermal leishmanoid by characterizing the type of cells and parasites localized in the skin and performing tests of immunological competence.

Cooperating Institutions: Central Laboratory, Ministry of Health, Khartoum, Sudan and Wau Provincial Lab, Bahr El Ghazal, Sudan; University of Arizona

Location of Documentation: All project documents, including original proposal, budgets, and annual reports are located in the Sudan Project Office, Room A22, Veterinary Clinic, Mike Boland, Administrator.

Project Summary Comment: Despite political turmoil in Sudan, the project has received funding to continue the proposed research. Project participants are continually analyzing and writing up their findings. An up-to-date list of publications and abstracts may be obtained from Mike Boland, Sudan Projects Office, 22A Vet Clinic.
COLOMBIA--COLLEGE OF AGRICULTURE
AT MEDELLIN AND PALMIRA

Donor: International Cooperation Administration (forerunner of Agency for International Development), U.S. Department of Agriculture, Kellogg Foundation, Rockefeller Foundation

Contract No.: TECW-13-11
Account No.: Not available
Location: Colombia
Duration: December 1951-April 1959 (with activities extending to June 1962)
Budget: $914,032 (ICA); $102,000 (U.S.D.A.); $161,173 (Kellogg)

Key MSU Faculty: Kirkpatrick Lawton, Coordinator (Crop & Soil Science). At Medellin, key faculty were P. Herbert (Forestry); L. Robertson and H. Pettigrove (Crop & Soil Science); W. Snyder (Dairy Science); E. Weaver and J. Johnson (Animal Husbandry). At Palmira, key faculty were C. Hansen and C. Albrecht (Agricultural Engineering); V. Freeman, C. Sheppard, and H. Newland (Animal Husbandry); L. Kyle (Agricultural Economics); K. Lawton (Crop & Soil Science)

Project Goals: To study and evaluate agricultural teaching, research, and extension programs in Colombia and to recommend means for their improvement as a basis for the long-range development of the nation's agriculture; to strengthen the undergraduate curricula in agriculture and to introduce the land-grant college philosophy of service to people.

Cooperating Institutions: National University of Colombia, Bogota; Facultades de Agronomia at Palmira and Medellin, Colombia

Location of Documentation: Annual reports by Kellogg Foundation are located in University Archives and Special Collections, Main Library.

Project Summary Comment: MSU's long-term experience in support to institution building developments in Africa, Asia, and Latin America began in 1951 with a program of cooperation with Colombia's Colleges of Agriculture at Palmira and Medellin. This project was financed primarily by the International Cooperation Administration. It focused on curriculum development and staff training, oriented largely to the crops, soils, animal, horticultural, agricultural economic, agricultural engineering, and forestry sciences. Formal classroom and laboratory field instruction at the degree level was supplemented by 30 special non-degree short courses enrolling over 650 off-campus farmers and agribusiness personnel. Thirty-one Colombian faculty members pursued degree and/or non-degree participant training programs at MSU. All graduate degree training programs included "hands on" experiences as a means to relate theory to practice and vice versa.

Among project accomplishments are the establishment of the Instituto de Forestal at Medellin to train foresters, the construction of a new dormitory and a new agricultural engineering building at Palmira, and the development of a dairy herd, a swine herd, and poultry flock at Medellin. With the assistance of the Kellogg Foundation, a new dairy processing plant, agricultural engineering building, and forestry summer camp were constructed. The Rockefeller Foundation provided funding for the planning and development of buildings, teaching and laboratory facilities, and library holdings. In Colombia, some 13 farmer bulletins were produced covering poultry, swine, beef cattle and dairy feeding and management as well as forage crops, variety and soil management recommendations. A list of these bulletins is available in the reports produced by Kellogg located in University Archives and Special Collections, Main Library.
COMMUNICATIONS SEMINARS/WORKSHOPS

Donor: Agency for International Development
Contract No.: AID/OTR-c-1253
Account No.: 71-2043
Location: MSU campus
Duration: September 1958-September 1978
Budget: Approximately $100,000 per year for 20 years

Key MSU Faculty: Gordon Thomas, Project Leader (Communications); E. Bettinghouse, F. Burns, D. Berlo, and L. Sarbaugh (Communications)

Project Goals: To provide foreign participant trainees a better basis for re-entering their own society at completion of studies in the U.S. by helping them to adapt their training acquired in the U.S. to effectively introduce it at home.

Project Plans/Objectives:
To hold 5-day workshops aimed at providing persons from other countries who have been receiving academic or other training in the U.S. under the auspices of AID with training in communication skills in order that participants can be more effective in utilizing their new skills and in introducing new ideas.

Location of Documentation: Information on documents and manuals generated by this project can be obtained from the Department of Communications or from University Archives and Special Collections, Main Library.

Project Summary Comment: Originally designed to meet the above-stated goals and objectives, the project added a "Management/Communication Workshop" component in about 1976. When priorities changed in AID funding policies, the contract was terminated, but the workshops were subsequently taken over on a private sector basis by R. Morris (former trainer) and expanded to include other-agency sponsored individuals.

The following is excerpted from Education & World Affairs, The University Looks Abroad, New York: Walker & Co, 1965:
In 1958 AID turned to MSU, which had acquired a reputation in the communications field for its agricultural extension work at county and local levels in Michigan and by housing the National Project in Agricultural Communications, and charged it with designing a unique communications course that would assist the foreign participants in bringing about change in their home institutions. MSU's response was an intensive week-long seminar, a communications "think tank" in which groups of returning participants were assembled at the end of their stay in the U.S. and put through an analysis of the processes of communication and the techniques by which they could initiate change on their return to their own countries.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS
IN SELECTED LATIN AMERICAN COUNTRIES

LATIN AMERICAN MARKETING PROGRAM (LAMP)
(Eleven Projects)

Overview

The early roots of this program are found in proposals written in 1963 and 1964 by C. Slater (School of Business). In 1964, with the cooperation of H. Riley (Agricultural Economics), a proposal was submitted to the Agency for International Development for a pilot project in Food Marketing and Agricultural Development in Colombia. Not acceptable in its original form, Slater and Riley, along with J. McNelly (Communication Arts) submitted a second proposal for a project on food marketing and its contribution to economic development in Latin America. This research focused on: 1) marketing management and 2) the role of marketing in economic development.

The first project to be funded under this general program was a study conducted in Puerto Rico 1965-66. Following on the heels of this project was the creation of the Latin American Market Planning Center at MSU which expanded the scope of the program to include not only food marketing but also the marketing of technical farm inputs and industrially produced consumer goods. A study of the market processes in the Recife area of Northeast Brazil was funded in 1966 and continued through 1967. Simultaneously with the Brazil project, a study of the market processes in La Paz, Bolivia was undertaken. In the fall of 1966, the biggest and longest lasting project activity was undertaken on the market coordination in the development of the Cauca Valley region, Colombia. Involvement of MSU faculty and staff was continued 1970-1972 with a separate contract negotiated by H. Riley to assume a consultative position with the AID mission in Bogota, Colombia, and further called upon other MSU faculty on a short-term basis for their advice. Also in 1972, the Costa Rican market planning research was begun and continued for four years. In 1975, on the basis of continued interest in MSU's participation in the study of marketing and their recommendations, another contract was negotiated with Colombia. K. Harrison (Agricultural Economics) was positioned in the Office of Planning in the Ministry of Agriculture, Colombia, for two years.

With changes in the staffing and orientation of the Agency for International Development, formal project agreements ceased in 1976. Throughout the conduct of each of the projects under the general LAMP umbrella program, a multidisciplinary focus was maintained, and strong linkages were generated and maintained with host country institutions (including various ministries and universities) as well as with international organizations working within a given country. The emphasis of the entire program was one of collaboration between MSU and host country officials. In most instances, host countries provided additional funding to augment the awards made by the Agency for International Development.

Some of the spin-offs of the LAMP program, in addition to providing the basis for research for master's and doctoral theses for MSU students and students from host country universities, include the following.

1) The creation in Río de Janeiro of a Marketing Training Center by the Organization of American States.

2) The establishment of a marketing program within the Inter-American Institute of Agricultural Sciences (IICA) staffed largely with professionals trained at MSU and/or through LAMP field projects.

3) The creation of the small farmer access program within the Agency for International Development.
4) The creation of strong linkages with FAO, the Inter-American Development Bank, and the World Bank, all of which draw on the research conducted by LAMP for the design of assistance programs.

5) The continued use of expertise generated by LAMP in consulting requests extended to participants (e.g., the insight and recommendations of H. Riley in marketing issues in Mexico and Ecuador).

6) Incorporation of many lessons learned from LAMP in courses in marketing in Agricultural Economics at MSU.

A general overview of lessons learned from the conduct of LAMP research up through 1974 is presented in the Latin American Studies Center publication, Research Report No. 6, Improving Food Marketing Systems in Developing Countries: Experiences from Latin America, written by K. Harrison, D. Henley, H. Riley, and J. Shaffer. Copies are available from the Department of Agricultural Economics. This publication provides a list of monographs, dissertations, theses, and working papers generated as a result of LAMP.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS
IN SELECTED LATIN AMERICAN COUNTRIES (1)

Donors: Agency for International Development
Contract No: AID/tcr-786
Account No.: Not available
Location: MSU campus
Duration: April 1965-June 1966
Budget: $395,162

Key MSU Faculty: Charles Slater, Co-Director (Marketing & Transportation) and Harold Riley, Co-Director (Agricultural Economics)

Project Goals: To provide developing countries with information to assist in the design of improved food marketing systems, and to formulate a more adequate conceptualization of the role of marketing in the development process.

Project Plans/Objectives:
1. To identify institutional and social reforms that will make the channels of distribution more efficient in the foodshed of urban areas in developing countries.
2. To identify institutional and social reforms, including the legal framework and regulations surrounding the marketing of foods, that will induce more food production and at the same time will get a greater percentage of that food to markets in urban areas of developing economies.
3. To develop predictive tools to enable us to understand the response patterns and measure the costs and benefits from infusions of capital and new technology and other marketing reforms.
4. To provide a comparative study of marketing systems in different cultures.

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: This project was the first of several MSU marketing studies to be conducted in Latin America. On the basis of the expertise generated through this initial study and through the overall expertise in marketing and in Latin American Studies by the faculty of the Departments of Marketing & Transportation and Agricultural Economics and of the Latin American Studies Center, funding was obtained to establish the Latin American Marketing Planning Center (LAMP).
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS
IN SELECTED LATIN AMERICAN COUNTRIES (2)

FOOD MARKETING IN THE ECONOMIC DEVELOPMENT OF PUERTO RICO

Donor: Agency for International Development
Contract No.: AID/tcr-786 (as in project (1))
Account No.: Not available
Location: Puerto Rico
Duration: April 1965-June 1966
Budget: Portion of the budget listed in "A Comparative Study of Food Marketing Systems in Selected Latin American Countries (1)"

Key MSU Faculty: Charles Slater, Co-Director (Marketing & Transportation) and Harold Riley, Co-Director (Agricultural Economics); J. McNelly and V. Farace (Communications); H. Koenig (Systems Science); J. Shaffer and K. Harrison (Agricultural Economics); J. Wish (Marketing & Transportation)

Project Goals: To obtain insights into the role of food marketing in economic development and to evaluate the efforts to foment changes in food marketing as part of a more general economic development program.

Project Plans/Objectives:
1. To measure and analyze the changes that took place in the Puerto Rican food marketing system over the 15-year period, 1950-1965.
2. To make recommendations for further improvements in the Puerto Rican food marketing system.
3. To develop research methodologies useful in appraising marketing problems in other Latin American countries.
4. To draw inferences and to formulate hypotheses concerning the role of food marketing in economic development.

Cooperating Institutions: Puerto Rican Department of Commerce, at the University of Puerto Rico—the Social Science Research Center, the Agricultural Extension Service, the College of Agriculture at Mayaguez, and the Department of Economics, the Government Departments of Agriculture and Economic Planning; MUCIA; Latin American Studies Center at MSU

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: The marketing study conducted in Puerto Rico as the first research endeavor in the Latin American Marketing Program lead to a second AID-funded project to establish the Latin American Market Planning Center. Findings from this first study are published by the Latin American Studies Center, Research Report No. 4, under the title Food Marketing in the Economic Development of Puerto Rico under the general series title "Marketing in Developing Communities". The authors are H. Riley, C. Slater, K. Harrison, J. Wish, J. Griggs, V. Farace, J. Santiago, and I. Rodriguez. Copies are available from the Department of Agricultural Economics.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (3)

LATIN AMERICAN MARKETING PLANNING CENTER (LAMP)

Donor: Agency for International Development
Contract No.: AID-la-364 (core funding for LAMP and several projects)
Account No.: 71-2035
Location: MSU campus, Puerto Rico, Brazil, Bolivia, Colombia
Duration: 1966-December 1973
Budget: $947,179

Key MSU Faculty: Charles Slater, Co-Director (Marketing & Transportation) and Harold Riley, Co-Director (Agricultural Economics)

Project Goals: To establish a Latin American Marketing Planning Center to study and make recommendations on food marketing and the marketing of technical farm inputs and industrially produced consumer goods in selected Latin American countries; to develop systems models as an analytical technique to evaluate the economic consequences of alternative marketing reforms.

Project Plans/Objectives:
1. To conduct collaborative diagnostic-prescriptive studies in selected Latin American countries.
2. To further develop a body of knowledge and general principles that would be useful in developing improved food systems.
3. To expand the supply of professional personnel capable of assuming leadership roles in food systems development.
4. To provide advisory assistance to public agencies in Latin American countries, government agencies, public enterprises, and universities located in selected countries.

Location of Documentation: Project Documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: Studies were conducted under LAMP auspices in Brazil, Bolivia, and Colombia, each of which is reported separately on the next three pages.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (4)

MARKET PROCESSES IN THE RECIFE AREA OF NORTHEAST BRAZIL

Donor: Agency for International Development
Contract No.: AID-la-364
Account No.: 71-2035
Location: Brazil
Duration: 1966-1967
Budget: A portion of LAMP budget

Key MSU Faculty: Charles Slater, Co-Director (Marketing & Transportation) and Harold Riley, Co-Director (Agricultural Economics); K. Harrison, Chief of Party (Agricultural Economics); D. Larson, J. Weiss, and J. Shaffer (Agricultural Economics); M. Doctoroff (Business); D. Taylor and R. Mason (Marketing & Transportation); V. Farace (Communications)

Project Goals: To describe and analyze the existing marketing system in Northeast Brazil as a basis for formulating recommendations for improvements that would contribute to regional development goals; to contribute to a more useful conceptualization of market processes in economic development.

Project Plans/Objectives:
1. To conduct a diagnostic study of the existing marketing system for food, selected agricultural products, farm inputs, and selected locally produced consumer goods.
2. To formulate recommendations for improvements in the marketing system based upon the diagnostic studies.
3. To develop systematic procedures for evaluating selected potential marketing reforms and arriving at policy decisions.
4. To evaluate hypotheses and draw conclusions about the role of marketing in economic development.
5. To provide research training for the Brazilian and MSU project staff.

Cooperating Institutions: The Brazilian Department of Agriculture and Supply Centrais de Abastecimento do Nordeste S/A (CANESA), Universidade Federal Rural de Pernambuco, Banco do Nordeste do Brasil S/A, Fundacao para o Desenvolvimento Industrial do Nordeste (FUNDINOR), Superintendencia Nacional do Abastecimento (SUNAB), Faculdade de Ciencias Economicas da Universidade Federal de Pernambuco, Conselho de Desenvolvimento do Pernambuco (CODEPE), and the Northeast Brazil Economic Development Agency (SUDENE)

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: The Northeast Brazil program was carried on as a combined effort of both the Latin American Marketing Planning Center (AID-la-364) and the
Comparative Food Marketing Systems Studies (AID/ter-786). The field research was conducted by a joint task force organized under a memorandum of agreement linking MSU with SUDENE (the Northeast Brazil Economic Development Agency) with concurrence and logistical support from AID/Brazil. The geographic focus of the study was narrowed to Recife and the rural area that serves as a primary source of locally produced agricultural products. Five commodities were selected for detailed investigation in the rural areas. Rice, beans, and manioc were selected as staple food items that are widely consumed throughout the Northeast and also rank high as sources of farm income. Milk was taken because of its potential importance in the improvement of nutrition, especially among children. Available information also indicated that the urban milk distribution system was a major obstacle to expanded consumption. The fifth commodity taken was cotton, which is one of the two most important agricultural crops in the Northeast, the other being sugar.

There were five phases of work. The first was the preliminary investigations, including review of previous studies, interviews with public officials in agencies involved in marketing, direct observation and detailed interviews with market participants, and collection and examination of secondary data. These activities provided a basis for a more detailed plan of work. Phase Two was the planning and execution of detailed structured interviews with systematic samples of market participants. These included consumers and retailers-wholesalers in Recife, farmers in the Recife foodshed, farm input distributors, commodity assemblers, and industries. Other phases were organized to meet the objectives set forth above.

Findings of the Brazil project were published by the Latin American Studies Center, Research Report No. 2, entitled Market Processes in the Recife Area of Northeast Brazil, and is a part of the series "Marketing in Developing Communities". The authors are C. Slater, H. Riley, V. Farace, K. Harrison, F. Neves, A. Bogalay, M. Doctoroff, D. Larson, R. Nason, and T. Webb. Copies are available from the Department of Agricultural Economics.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (5)

MARKET PROCESS IN LA PAZ, BOLIVIA

Donor: Agency for International Development, Government of Bolivia, Midwestern Universities Consortium for International Activities (MUCIA)
Contract No.: AID-la-364
Account No.: 71-2035
Location: Bolivia
Duration: 1966-1967
Budget: A portion of LAMP budget (approximately $100,000)

Key MSU Faculty: Charles Slater, Co-Director (Marketing & Transportation); J. Wish, Chief of Party (Marketing & Transportation); D. Henley (Marketing); V. Farace (Communications)

Project Goals: To describe and evaluate the exchange processes for consumer goods and foods in La Paz with a principal focus on the private sector's involvement in and contribution to the food marketing system; to develop recommendations concerning marketing reforms that would foster internal market integration.

Project Plans/Objectives: This project included several areas of research:
1. Consumers living in the La Paz market.
2. The food retailing and wholesaling institutions of La Paz, with an emphasis on isolating institutional characteristics of various institutions in the market process.
3. Food transport system.
4. Food producers and country assemblers.
5. Rural fairs and peasant consumption, especially the availability of consumer and farm input goods on the Altiplano, as well as communications media.

Cooperating Institutions: Ministry of Economy, Ministry of Agriculture, Census and Statistics Bureau of the Treasury Department, National Transit Service, National Commission for Transportation Rationalization Survey, National Railroad Enterprise, Community Development, Peace Corps, various retailing and market women's unions, the Federation of Truckers, the Faculty of Economics of the University of San Andres, and the AID/Bolivia mission

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: Running simultaneously with the study in Northeast Brazil, the Bolivia research was the third in a series of AID-funded efforts to ascertain information on marketing systems in Latin America. The study was concerned with La Paz consumer behavior, including economic characteristics of La Paz residents, the social-economic interface between consumer and retailer, the urban marketing system (including both wholesale and retail operations), the physical distributive link in the marketing system--truckng, the rural farmer as both producer and consumer, an analysis of the marketing system as a whole, and recommendations for urban and
rural reforms to rationalize the production and marketing of foodstuffs in La Paz and its foodshed area.

The findings of this research have been published by the Latin American Studies Center, Research Report No. 3, entitled Market Processes in La Paz, Bolivia under the series "Marketing in Developing Communities". It was written by C. Slater, D. Henley, J. Wish, V. Farace, L. Jacobs, D. Lindley, A. Mercado, and M. Moran. Copies are available from the Department of Agricultural Economics.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (6)

MARKET COORDINATION IN DEVELOPMENT OF THE CAUCA VALLEY REGION
PROYECTO INTEGRADO DE MERCADEO URBANO RURAL--PIMUR

Donor: Agency for International Development and the Government of Colombia
Contract No.: AID-la-364
Account No.: 71-2035
Location: Colombia
Duration: September 1968-1970
Budget: A portion of LAMP budget

Key MSU Faculty: Harold Riley, Co-Director (Agricultural Economics) and Donald Taylor, Co-Director (Marketing & Transportation); J. Shaffer, D. Larson, and K. Harrison, Co-Director of PIMUR (Agricultural Economics); C. Guthrie (Marketing & Transportation)

Project Goals: To conduct diagnostic studies of market coordination in the Cauca Valley region and to formulate recommendations to improve resource use efficiency and stimulate economic growth; to train Colombian personnel in the technical aspects of economic studies and to contribute to a better understanding of market coordination processes in economic development.

Project Plans/Objectives:
1. To describe and analyze the urban food distribution system serving Cali, including socio-economic characteristics of consumers and their relation to existing shopping patterns, and the existing system of food wholesaling and retailing.
2. To describe and evaluate the vertical production-distribution systems for meat, poultry, eggs, milk, selected fruits and vegetables, and grains.
3. To describe and evaluate the performance of special industries in the food system, including technical farm inputs, food processing, packaging, and transportation.
4. To analyze manufactured consumer goods industries and residential construction, including the investigation of some public aspects of market coordination (e.g., laws and regulations), information, communication, and credit.
5. To diagnose the performance of the existing system of market coordination, and to make recommendations to enhance its efficiency.

Cooperating Institutions: The Colombian Autonomous Regional Corporation of the Cauca Valley (CVC), Specific Projects Section of the National Department of Planning, Promotora de Abastecimientos, Division of Social Sciences at the University of Valle, the National Marketing Agency IDEMA, Sociedad de Agriculturas del Valle, Empresas Municipales de Cali, Systems Research, Inc., Peace Corps, the Faculty of Agronomy at Palmira and Cornell University

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).
Project Summary Comment: The Colombia marketing project constituted the largest one undertaken under LAMP with involvement extending into the mid-1970s. A series of 16 technical reports was generated providing a much more detailed description and analysis of specific components of the regional economic system than is presented in the summary report.

In line with other LAMP projects, the emphasis here was on collaboration and cooperation with Colombian nationals and institutions. LAMP personnel provided consultative and advisory services as well as technical direction for the project. After project research was completed, K. Harrison, the Co-Director of PIMUR, remained in Colombia, along with D. Larson, to help promote some of the recommendations the project summary made, including the development of plans and financing of the construction of a wholesale market in Cali. As a result of the joint efforts of Harrison, Larson, and a number of Colombian nationals in the Ministry of Agriculture, a semi-private corporation--CORABASTOS--was organized to construct a new wholesale market outside of Bogota to help improve that city's food distribution system.

Further AID funding was obtained for subsequent projects described under the title "Colombia Marketing" and "Assistant to AID Mission/Colombia".

The final summary of the project was published by the Latin American Studies Center, Research Report No. 5, entitled Market Coordination in the Development of the Cauca Valley Region--Colombia, as part of the series "Marketing in Developing Communities". The authors are H. Riley, K. Harrison, N. Suarex, J. Shaffer, D. Henley, D. Larson, C. Guthrie, and D. Lloyd-Clare. Copies are available from the Department of Agricultural Economics.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS
IN SELECTED LATIN AMERICAN COUNTRIES (7)

ASSISTANCE TO AID MISSION/COLOMBIA

Donor: Agency for International Development
Contract No.: AID/514-129-T
Account No.: 71-2030
Location: Colombia
Duration: September 1970-December 1972
Budget: Not available

Key MSU Faculty: Harold Riley (Agricultural Economics)

Project Goals: To work out of the AID Mission in Bogota in assisting the Government of Colombia to conduct studies and analyses of the inter-relationships between the urban and rural sectors with particular emphasis on the role of agriculture within regional economic systems in Colombia and to advise and assist Colombian Government officials and AID staff in the formulation of agricultural policies and programs to encourage agricultural and urban development along regional lines.

Project Plans/Objectives:
1. To assist the Ministry of Agriculture in the planning and presentation of a national food marketing seminar.
2. To provide counsel to the Corporacion de Abastos de Bogota and the Central de Abastecimientos del Valle del Cauca and to other regional agencies that may be organized.
3. To carry out analyses to develop better estimates of the effects of larger-scale and better coordinated systems of urban food distribution on employment, food prices, and the secondary effects on demand for food and non-food consumer goods.
4. To conduct studies to support the development of coordinated production-marketing programs for selected rural areas where major public efforts are being made to increase employment and incomes.
5. To assist Mission staff in studies on migration patterns, estimation of average and marginal costs of urban infrastructure by size of city, identification of "bottlenecks" impeding the development of intermediate cities, and industrial development in intermediate cities.
6. To provide assistance to local contractors with the National Department of Planning for the evaluation and monitoring activities to be a part of the Urban-Regional program.
7. To explore the potential interest of Colombian entities in simulation model studies and to assist in making arrangements for this activity.

Cooperating Institutions: CORABASTOS, AID/Bogota, CAVASA (Cali), Empresos Varios of Medellen, Planning Section-Ministry of Agriculture

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (8)

COSTA RICA AGRICULTURAL MARKETING (1)

Donor: Agency for International Development/Costa Rica Mission
Contract No.: AID/515-234-T
Account No.: 71-2001
Location: Costa Rica
Duration: April 1972-July 1974
Budget: $94,192

Key MSU Faculty: K. Harrison, Co-Director LAMP (Agricultural Economics); M. Weber, Country Coordinator (Agricultural Economics); W. Baucom, Country Coordinator (Agricultural Economics); J. Shaffer, G. Harrell, D. Fienup, D. Ricks, and K. Shwedel (Agricultural Economics)

Project Goals: To assist the Government of Costa Rica to develop and implement national agricultural marketing policies, plans, and programs and to provide AID/Costa Rica with a management capability to design, evaluate, and monitor a development loan project in agricultural marketing as a follow-on to the Agricultural Development Program financed in part by AID.

Project Plans/Objectives:
1. To perform the technical, economic, and social analyses necessary to formulate criteria for a realistic investment policy for market and food distribution facilities in Costa Rica.
2. To develop an integrated interagency program combining long- and short-term research activities in accordance with priorities established by the agencies involved.
3. To facilitate and promote the production and distribution of that combination of food and related services that best reflects consumer preferences.
4. To promote the integration and coordination of market-facilities development activities and investment among concerned Costa Rican institutions.

Cooperating Institutions: UNESCO, University of Costa Rica, Institute for Municipal Development, PIMA (Programa Integral de Mercadeo Agropecuario, CAN

Location of Documentation: Reports on Phases 1, 2, and 3 of this project are located in University Archives and Special Collections, Main Library; other reports can be obtained from either M. Weber or H. Riley (Agricultural Economics).

Project Summary Comment: Although affiliated with LAMP, this project received mission funding to undertake studies modeled on those developed by previous LAMP research. This contract was the first of three designed to obtain information on the agricultural marketing system of the country. Two projects were subsequently funded to elicit further marketing information and to establish a permanent marketing research and policy analysis group in Costa Rica.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (9)

COSTA RICA AGRICULTURAL MARKETING (2)

Donor: Agency for International Development/Costa Rica Mission
Contract No.: AID-515-250-T
Account No.: 71-2016
Location: Costa Rica
Duration: July 1974-July 1976
Budget: $99,878

Key MSU Faculty: K. Harrison, Co-Director LAMP (Agricultural Economics); M. Weber, H. Riley, K. Shwedel, J. Shaffer, and W. Baucom (Agricultural Economics)

Project Goals: To assist the Government of Costa Rica to develop and implement national agricultural marketing policies, plans, and programs and to provide AID/Costa Rica with a management capability to design, evaluate, and monitor a development loan project in agricultural marketing as a follow-on to the Agricultural Development Program financed in part by AID.

Project Plans/Objectives:
1. To establish a permanent marketing research and policy analysis group in an appropriate government agency.
2. To plan, finance, and operate a central wholesale market in San Jose.
3. To implement a market information service.
4. To develop an agricultural marketing extension program.
5. To arrange a special line of supervised credit for food wholesalers and retailers with an accompanying management training program for borrowers.
6. To establish a special group in IFAM (Institute de Fomento y Asesoría Municipal) with the capability to assist municipalities in (a) identifying needs for public market facilities as part of comprehensive plans for municipal development, (b) preparing pre-feasibility and feasibility studies for market related facilities, and (c) arranging financing for selected facilities.

Cooperating Institutions: UNESCO, University of Costa Rica, Institute for Municipal Development, PIMA (Programa Integral de Mercadeo Agropecuario)

Location of Documentation: Project documents are available from H. Riley or M. Weber (Agricultural Economics).

Project Summary Comment: This second of three marketing research projects funded by the AID mission in Costa Rica sought to implement certain of the recommendations made in the previous contract (AID-515-234T) and to establish a more permanent marketing research and implementation infrastructure within Costa Rica.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (10)

COSTA RICA AGRICULTURAL MARKETING (3)

Donor: Agency for International Development/Costa Rica Mission
Contract No.: AID-515-263-T
Account No.: 71-2005
Location: Costa Rica
Duration: November 1975-July 1976
Budget: $43,535

Key MSU Faculty: K. Harrison, Co-Director LAMP (Agricultural Economics); W. Baucom, K. Shwedel, J. Shaffer, and M. Weber (Agricultural Economics)

Project Goals: To assist the Government of Costa Rica to develop and implement national agricultural marketing policies, plans, and programs and to provide AID/Costa Rica with a management capability to design, evaluate, and monitor a development loan project in agricultural marketing as a follow-on to the Agricultural Development Program financed in part by AID.

Project Plans/Objectives:
1. To help PIMA to conduct its wholesale market feasibility study, especially in the areas of (a) institutional analysis, (b) market participant training programs, and (c) administrative organization.
2. To review the present food marketing system in light of the National Nutrition Program in order to determine key points of interaction and recommend specific projects appropriate for AID loan funding.
3. To assist INFOCOOP to improve its capability to develop and evaluate agricultural loan requests consistent with the purpose of Loan 025.

Cooperating Institutions: PIMA (Programa Integral de Mercadeo Agropecuario), INFOCOOP, UNESCO, University of Costa Rica, Institute for Municipal Development

Location of Documentation: Project documents are available from H. Riley or M. Weber (Agricultural Economics).

Project Summary Comment: This third and final marketing research project funded by the AID mission in Costa Rica provided consultative and research services through the auspices of LAMP on the MSU campus.
A COMPARATIVE STUDY OF FOOD MARKETING SYSTEMS IN SELECTED LATIN AMERICAN COUNTRIES (11)

NATIONAL MARKETING PROGRAM FOR AGRICULTURAL LIVESTOCK PRODUCTS

Donor: Government of Colombia and the Agency for International Development
Contract No. AID/la-C-116
Account No.: 71-2001
Location: Colombia
Duration: October 1975-December 1976
Budget: $87,887

Key MSU Faculty: K. Harrison (Agricultural Economics); M. Weber, H. Riley, J. Shaffer (Agricultural Economics)

Project Goals: To create a coordinated national marketing program capable of handling increased agricultural production and, at the same time, capable of reducing as much as possible the loss of products and the relatively high costs of the present marketing and distribution system; to help join and coordinate the efforts and activities of the various groups and organizations presently working in this field.

Project Plans/Objectives:
1. To advise and coordinate the implementation of a national agricultural marketing program, taking into account mainly the official institutional organization and the resources available to the National Government and to the regional semi-official marketing agencies such as CORABASTOS, EMCOPER, Enterprises of Medellin, CAVASA, etc.
2. To inform the Chief of OPSA regularly of events that occur in the development of the program.
3. To collaborate with the Chief of OPSA in the establishment of a work group with the appointment of one representative each from IDEMA, CECORA, CAJA AGRARIA, INAGRARIO, CORABASTOS, COFIAGRO, and ICA.
4. To work out jointly with the OPSA group, within the first months of the principal investigator's residence in Colombia, a tentative program for the foreign short-term experts.
5. To evaluate the agricultural marketing training programs that are promoted regularly in Colombia with the purpose of suggesting modifications that may contribute to their improvement.
6. To prepare a plan for exterior training covering the most important needs of the agricultural sector.
7. To prepare and/or recommend feasibility studies on marketing and distribution facilities and systems, such as: a) marketing and price information; b) regulations and compliance with those regulations; c) transportation and handling systems--both refrigerated and non-refrigerated facilities; d) refrigerated and non-refrigerated storage facilities; e) physical marketing facilities; f) incentives to improve marketing systems; g) provide technical assistance to both retailers and wholesalers; and h) stimulation of institutional reforms.

Cooperating Institutions: Agricultural Sector Planning Office, Ministry of Agriculture (OPSA); National Planning Department (DNP); Agrarian Reform Cooperatives
Central (CECORA); Commodity Supply Corporation of Bogota (CORABASTOS); Agricultural Financing Corporation (COFIAGRO); Agricultural Credit Bank (Caja Agraria); Perishable Products Marketing Enterprise (EMCOPER); Commodity Supply Corporation of Cauca Valley (CAVASA)

Location of Documentation: Project documents are available from H. Riley (Agricultural Economics).

Project Summary Comment: This contract is essentially a continuation of relationships between MSU and the Government of Colombia in agricultural marketing that were in effect for about 5 years. It provides for the long-term involvement of K. Harrison and the short-term involvement of MSU consultants who, by and large, had gained much of their expertise from former participation in LAMP related projects. This project also constitutes the final undertaking under the general auspices of the MSU-based LAMP organization.
COMPREHENSIVE RESOURCE INFORMATION AND EVALUATION SYSTEM (CRIES)

Donor: Office of International Cooperation & Development (OICD) USDA, FAO, World Bank, Agency for International Development

Contract No.: 13-17-07-8-955 (OICD); AID-517-0126-C-00-2006-0 (AID--Dominican Republic Forestry Project)

Account No.: 71-1995 (OICD); 71-1996 (AID-OICD); 71-2000 (Honduras); 71-1998, 71-3877 (Jamaica--AID); 71-3085 (World Bank); 71-2021 (Dominican Republic); 71-4230 (FAO)

Location: Dominican Republic, Costa Rica, Nicaragua, Honduras, Kenya, Jamaica, Syria, Philippines

Duration: June 1976-September 1988

Budget: $1,500,000 (Accumulated total $6,200,000)

Key MSU Faculty: G. Schultink, Director (Resource Development); A. Zusmanis, (Resource Development); M. Gold and L. James (Forestry); D. Chappelle (Resource Economics); L. Libby (Resource Policy); D. Bronstein (Environmental Law); D. Mokma (Soil Science); H. Riley and M. Weber (Agricultural Economics); M. Thullen (Rural Development); S. Witter, B. Enslin, D. Lusch, and D. Hudson (Remote Sensing); M. Lipsey (Spatial Analysis & Cartography); G. Larson (Geology)

Project Goals: To evaluate public and private benefits derived from alternative land use options and policy scenarios through the utilization of a systematic resource analysis approach.

Project Plans/Objectives:

General
1. To apply a consistent approach to land resource assessment that is adaptable to many countries and suitable for the transfer of appropriate agrotechnology.
2. To provide assistance in integrated surveys, development of a computer compatible resource data base and computer-aided analysis software suitable for the analysis of development options and policy evaluation.
3. To provide the training and technical assistance necessary to develop indigenous capabilities to inventory and classify renewable resources, to assess crop production potential, and to systematically evaluate development alternatives and derived public and private benefits.

Dominican Republic--LANDSAT Project
1. To evaluate the feasibility and costs of visual interpretation of LANDSAT imagery for land cover mapping in representative environments of the Dominican Republic.
2. To evaluate the usefulness of data obtainable from LANDSAT for purposes of national agricultural planning and development.
3. To develop a methodology that can be transferred to Dominican specialists for continuing development of natural resource planning.

Dominican Republic--Natural Resource Management (NARMA)--Watershed Management
To generate a national forest management plan that meets the following objectives:
1. To establish a reforestation program at the national level to protect the hydrographic basins from the excessive loss of soils and water and rehabilitate the degraded basins to extend the useful life of hydro-electric projects, increase the energy potential, and protect the irrigation systems.
2. To provide the terms of reference and technical-scientific criteria for formulation of management plans, forest production, and protection.
3. To adequately provide the forest products necessary to face the present and future demand for charcoal and firewood.

4. To provide forest products to satisfy the present and future needs for wood, and plan a margin for export.

5. To organize and develop wood and other forest production products, in accordance with the forest resource potential of the country that could be obtained by means of the forest management program, compatible with the objectives of conservation in a manner that will result in increasing rural employment, increasing family income, bettering the balance of payments, thereby assuring multiple production and maintenance of these resources.

6. To integrate forest activities with rural development programs with the objective of incorporating tree plantations in agricultural activities, thus contributing to the diminution of the accelerated deterioration of the soils and satisfying the basic needs for forest products of the inhabitants of the mountains.

7. To promote forest development through the transfer of new technology by means of research and extension to obtain improvement in the standard of living of the peasants, stimulating them to convert to allies of the forest.

8. To establish the legal and financial mechanisms necessary to promote reforestation and other forest activities at a national level, including the private sector.

Jamaica--Resource Assessment (Phases I and II)

1. To strengthen and develop the institutional capabilities in resource inventory, analysis, and planning to optimize the sustained use of natural resources.

2. To help develop compatible analysis methods of natural resources among institutions with a mandate in planning and policy analysis.

3. To develop a land resource analytical system compatible with land evaluation procedures in other tropical regions facilitating exchange of information critically needed to increase agricultural productivity.

Syria--Agricultural Sector Assessment

To utilize remote sensing imagery and other techniques to prepare technical reports on land resources and their use for agricultural production to assist the Government of the Syrian Arab Republic in long-run economic analysis and planning of the agricultural sector.

Honduras--Resource Assessment

1. To conduct a reconnaissance assessment at the national level providing general productivity ratings for agriculture and forestry, while indicating limiting factors affecting cropland use (macro-level assessment).

2. To survey the physical resources in the Department of Choluteca in order to provide a means of evaluating crop specific productivity for the Department (micro-level assessment).

Kenya--Food Production Assessment

To assist in the establishment of a country-wide physical resource data base to permit identification by government personnel of project areas of maximum crop production potential to meet the food requirements of the Kenyan population in the year 2000 and beyond.

Philippines--Rainfed Natural Resources Development

To assist the Ministry of Agriculture and Food and the Ministry of Natural Resources in the assessment of resource production potential of rainfed production systems for national policy analysis and development planning.

Cooperating Institutions: Appropriate ministries and planning agencies in each country; IICA, NASA, IISA, East West Center, FAO Land & Water Development Division
Location of Documentation: Most CRIES documents can be obtained from the CRIES Office, 302 Natural Resources, the Reference Room in the Natural Resource Building, MSU Library, or from participating government institutions.

Project Summary Comment: The major objective of the CRIES project is to help developing nations systematically assess their natural resources production potential. Emphasis is on agricultural production, export commodities, and/or food crops. A comprehensive resource data base is established and analyzed to provide information on the comparative advantage of agricultural production by location in an effort to evaluate alternative strategies and provide policy guidelines for rural development at the national and regional level.

The CRIES project works closely with counterpart institutions to transfer the appropriate technology used in resource inventory and analysis. Examples include remote sensing-based inventory procedures (from satellite or airborne sensing systems) and computer-based Geographic Information Systems to establish base line data on current land cover/use and agricultural production potential. In addition, the CRIES project aims to support sound resource management practices by supplying information essential to the sustained, long-term use of natural resources. The technology transfer activity is supported by system installation, applied research, and informal seminars and workshops conducted in the host countries, and through participation in formal degree programs at MSU by counterpart staff.

Publications of the project include Working Series documents, Special Reports, and reports specific to the needs of a particular participating country. Papers include general reports of the CRIES project; reports specific to the Dominican Republic, Nicaragua, Honduras, Costa Rica, and Syria; CRIES and/or participating country reports in Spanish; reports derived from the extension of Dominican Republic activities; synthesis reports of CRIES project experience; and agricultural policy analysis project reports. Copies of these and other documents are available from the CRIES Office, 302 Natural Resources.
CONSORTIUM FOR THE DEVELOPMENT OF TECHNOLOGY (CODOT)--FOOD SCIENCE RESEARCH

Donor: University of Rhode Island (Prime Contractor) with funds from the U.S. Treasury and Department of Commerce

Contract No.: Not available
Account No.: 71-2517 (Latin America); 71-4244 (MSU campus)
Location: Brazil, Guatemala, Nicaragua, El Salvador, Costa Rica, Honduras
Duration: July 1974-August 1985
Budget: $594,700 (Latin America); $36,000 (MSU campus)

Key MSU Faculty: Al Pearson, Campus Liason (Food Science & Human Nutrition); W. Urbain, T. Hedrick, J. Price, Project Leaders (Food Science & Human Nutrition); J. Price and L. Dawson (Food Science & Human Nutrition)

Project Goals: To provide technical assistance to government sponsored universities and industrial institutes on new product planning and development, research, extension services, and training; to conduct short course technical training sessions and food industry surveys in cooperation with host country personnel.

Project Plans/Objectives:
1. To provide technical assistance to ICAITI (Central American Research Institute for Industry) in Guatemala, including advice on how to establish an extension-type program in Central America and teaching a short course on meat processing.
2. To provide technical assistance to ITAL (Institute of Food Technology) in Brazil, including advice on the design and construction of a new plant to package and freeze selected cuts of beef and pork for the retail and wholesale meat market, how to smoke and process various meats, teaching short courses, and conducting a survey that reviewed post-graduate programs in food technology.

Cooperating Institutions: In the U.S., Consortium members include the University of Rhode Island as prime contractor, and the Universities of Wisconsin, Washington, California (Davis), and MSU; in Guatemala, ICAITI; in Brazil, ITAL

Location of Documentation: Information and reports on this project can be obtained from A. Pearson (Food Science & Human Nutrition).

Project Summary Comment: CODOT was formed as a consortium of interested individual at major universities in the U.S. to provide assistance in food technology to countries in the developing world. The project focuses on developing institutional capacity for technical and scientific research and training; identifying priority problems; assisting in market development; and implementation of technological advances. Current activities include the selection and placement of graduate students whose degrees in food science will be obtained either at MSU or at other collaborating universities.
Donor: Agency for International Development
Contract No.: AID/afr-264
Account No.: 71-2003
Location: Nigeria
Duration: April 1965-May 1971
Budget: $1,472,812

Key MSU Faculty: Glenn Johnson, Director (Agricultural Economics); George Dike, Deputy Director (Agricultural Economics); C. Laurent, H. Kriesel, M. Purvis, C. Eicher, and V. Smith (Agricultural Economics)

Project Goals: To provide an objective assessment of AID's total contribution toward Nigerian rural development, including studies of American-supported rural development projects and of long-run problems in the Nigerian economy relating to AID agricultural assistance programs.

Project Plans/Objectives: Eight sub-projects were involved in this MSU-lead consortium undertaking:

1. University Education in Agriculture--University of Wisconsin
   To determine how to better allocate AID resources to help Nigeria turn out graduates who will do practical, significant work in agriculture (including home economics); in agricultural ministries (administrative, supervisory, and educational activities); in teaching and administration in schools of agriculture, indirectly through university teaching; in management of plantations; in research in agriculture; in management in processing firms; in technological work in processing firms, by helping with general allocation of resources; in "general" ministries, such as the Ministries of Economic Planning; in helping those who will work on sub-university training, research, extension, and direct investment projects; in suggesting improved allocation of AID resources among these types of activities and university education; and in helping develop recommendations to improve the use of AID assistance to university level agricultural training.

2. Sub-university Education and Extension Work--Colorado State University
   To evaluate AID's support for sub-university training of personnel to do agricultural and home economics extension work for the regional governments and native authorities, and AID's support for agricultural training of farmers, local leaders, and homemakers; to help develop recommendations for improved AID support of sub-university level agricultural and home economics training; to help officials concerned with university education, research, extension, and investment projects decide on a more optimal (if possible) allocation of AID money among these activities and sub-university training; to determine improved ways of training extension personnel as conditioned by level of training before beginning extension training, kind of farming, and homemaking experience before beginning extension training; when "extension employee" status is conferred--at the beginning or end of training period, which agency is responsible for extension training, and the way trainees can qualify for further education; to determine improved ways of training Nigerians for farming and home economics work at primary school level, farm institutes, secondary school levels, and in connection with community development projects.

To identify investment opportunities in agricultural production, processing, and marketing, and to indicate priorities; to identify obstacles to such investments and to develop policy recommendations for the Government of Nigeria, AID, domestic and international agencies, private firms, and institutions to increase direct public and private investment in agriculture.

Specific objectives for project three include: to inventory AID projects that would involve direct investments to increase agricultural output and incomes that have been approved or disapproved; to compare the off-shore components of AID approved projects involving direct investments with projects involving infrastructure for agriculture, and projects disapproved by AID that involved direct investments; to determine and investigate quantitatively the other problems that have prevented more extensive development of proposals and approval of proposals for direct AID investments in Nigerian agriculture; to develop recommendations as to how considerations of AID assistance involving expanded direct investment in agricultural productivity should be examined by AID; to develop a theoretical framework and empirical information on which judgements can be made as to probable rates of return to investments under feasible alternative forms for organizing agricultural production and processing activities.

Specific objectives for project four include: to ascertain both the adverse and favorable consequences of AID's lack of projects to encourage investment; to develop specific recommendations as to ways and means by which AID might advantageously encourage U.S. private investment in Nigerian agricultural production and processing, Nigerian private investments in Nigerian agricultural production and processing, and non-U.S. expatriate investments in Nigerian agricultural production and processing.

3A. Human Nutrition and Resource Use--Michigan State University

5. Modernizing the Northern Beef Industry--Kansas State University

6. Agricultural Research--Kansas State University

To compile information about research currently underway or completed in this area, including the agencies engaged in this research, funds being expended and sources of these funds, commodity and regional distribution of research projects, qualifications and training of research personnel, organization of agricultural research, and other related items; to evaluate past and present research projects or activities from the standpoint of the economic returns received or potentially obtainable, including estimated cost/benefit ratios for research funds expended in alternative ways; to identify objectives of agricultural research to decide where AID support likely will yield high returns in terms of increased agricultural output and productivity and improved nutrition in the near future; to produce technical input-output data on Nigerian farm enterprises for use by workers in other CSNRD sub-projects, as well as for the immediate purposes of this project; to develop specific recommendations for AID programs of support for agricultural research over the next five-to-ten years with reference to subject matter fields including soils, plant science, animal science, home economics, irrigation, engineering, rural sociology, transportation, storage, marketing, farm management, and economic policy.
7. **Agricultural Credit--Ohio State University sub-contract**

To do initial research on a) current use of production and marketing credit to finance use of seeds, tools, and other capital inputs, including information about interest rates, terms of loans, sources of loans, and repayment arrangements; b) the extent to which lack of credit is an obstacle to the adoption of improved farm production and marketing practices; c) the productivity of different kinds of capital goods that can be or are being used in farming enterprises and to estimate capital needs for more productive and improved farming systems; d) the terms and conditions under which loans can be made to farmers with good prospects for their repayment from increased production resulting from the use of capital goods; e) the regional agricultural credit institution laws, with a view to determining whether these institutions may be considered suitable for capital loans by non-Nigerian investment sources; f) the limits placed upon the economic utilization of agricultural credit by existing land tenure systems, marketing board policies, and livestock marketing arrangements; and g) the extent and nature of present agricultural credit institutions; to conduct a study to provide a basis for establishing a national agricultural credit bank, considering, but not limited to, the following points: 1) recommendations will be needed to provide the basis for a viable institution attractive to foreign lenders interested in financing Nigerian agriculture; 2) it must be organized in a manner to minimize undue political influence on the day-to-day decisions on credit facilities; 3) recommendations will be needed on how to clarify relationships between a national institution and existing credit institutions in the provinces; 4) recommendations will be needed on how to establish the nature and scope of bankable projects, such as plantations, in which the institution can invest; 5) judgements will be presented as to the effective demand for farm credit in Nigeria, as well as the resources available for capitalizing a national agricultural credit institution; to make recommendations on long-term agricultural research programs on agricultural credit that should be carried out on a continuing basis by agricultural credit agencies in Nigeria; and to develop specific recommendations for AID programs of support for agricultural credit.

8. **Cultural Restrictions on Development** (never activated due to political conditions in the country)--Colorado State University

Cooperating Institutions: U.S.--Colorado State University, Kansas State University, University of Wisconsin, Research Triangle Institute of the University of North Carolina, Ohio State University, U.S. Department of Interior, U.S. Department of Agriculture; Nigeria--Federal Ministry of Economic Development, Federal Ministry of Agricultural and Natural Resources, National Universities Commission, the Nigerian Institute of Social and Economic Research, and the Economic Development Institute

Location of Documentation: Project papers for subprojects 1, 2, 3, 4, 6, 7, 8, and 9 as well as CSNRD publication no. 33, are located in University Archives and Special Collection, Main Library.

Project Summary Comment: This study was directed toward maximizing the effectiveness of U.S. foreign aid to Nigerian rural development studies. In a cooperative arrangement with several U.S. institutions, with MSU providing consortium leadership, 33 papers were generated and published under numbered CSNRD designation. Another 12 papers were published as working papers. A complete listing of these is available in University Archives and Special Collections, Main Library.
CONSUMPTION (NUTRITION) EFFECTS OF ECONOMIC POLICY
(Supplement to Household Project--AID/csd-C-1328)

Donor: Agency for International Development
Contract No.: AID/DSAN-C-0008
Account No.: 71-2047
Location: Sierra Leone
Duration: June 1978-October 1981
Budget: $499,872

Key MSU Faculty: Victor Smith, Principal Investigator (Agricultural Economics); A. Koo and P. Schmidt (Economics); P. Matlon (Agricultural Economics); K. Kolasa (Family & Child Ecology)

Project Goals: To develop an appropriate methodology to determine the effects of economic policy decisions on nutrient intake.

Project Plans/Objectives: To develop methodologies to predict food demand for low income agricultural households and to apply these methodologies in analyzing consumption/nutrient effects of specific economic policies in Sierra Leone. The methodologies include formulating a computer procedure to predict the effects of changes in specified economic events on food intake. The methodologies developed and tested with data from Sierra Leone and Nigeria will enable AID and governments of developing countries to begin to evaluate the impacts of various government policies and programs (including production, marketing, and general economic policies and programs) on consumption/nutrition.

Cooperating Institutions: Colleagues in Sierra Leone and Nigeria's Kano State

Location of Documents: Project documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Muan, Projects Administrator.
COOPERATIVE EXCHANGE BETWEEN MICHIGAN STATE UNIVERSITY
AND ADDIS ABABA UNIVERSITY

Donor: Agency for International Development
Contract No.: Not available
Account No.: Not available
Location: Ethiopia, MSU campus
Duration: September 1985-May 1988
Budget: $50,000

Key MSU Faculty: David Wiley, Director (African Studies Center)

Project Goals: To establish a program for collaboration and exchange in the fields of anthropology, social science disciplines, social science computer applications, library development, and Ethiopian studies.

Project Plans/Objectives:
1. To develop a department of anthropology that will train students in Ethiopia until they obtain an M.A. Degree, following which students will complete their Ph.D. Degrees at MSU.
2. To develop computer-based training and research in geography, economics, sociology, and psychology, including training in the use of microcomputers and conducting needs assessments for each of the concerned departments.
3. To assist in the development of teaching and research in Ethiopian Studies through the development of a monograph series to be published by the Institute of Ethiopian Studies.
4. To develop library resources at MSU and Addis Ababa University, especially in the humanities and social sciences, including monographs, dissertations, and periodicals.

Cooperating Institutions: Institute of Ethiopian Studies, Addis Ababa University

Location of Documentation: A project proposal is located in the African Studies Center.
COOPERATIVE TECHNICAL ASSISTANCE PROGRAM

Donor: Save the Children Federation
Contract No.: Not available
Account No.: 71-3902
Location: Burkina Faso, Gambia, Somalia, Cameroon
Duration: July 1984-June 1985
Budget: $12,010

Key MSU Faculty: M. Andrews (International Extension Training Program); L. Stebbins (Cooperative Extension)

Project Goals: To jointly (Michigan Cooperative Extension Service and Save the Children) sponsor a one-year professional development assignment for an MCES employee and short-term assignments for Cooperative Extension personnel with Save the Children projects overseas.

Cooperating Institutions: Save the Children, USDA

Location of Documentation: Information on this project can be obtained from M. Andrews (International Extension Training Program), 48 Agriculture Hall.

Project Summary Comment: Michigan was selected as the first state to participate in this pilot effort to establish a professional development exchange program between the Save organization and the USDA Extension Service. The County Extension Director/Ottawa County, L. Stebbins, was chosen to be the first participant. He offered advice in Africa on the design of agricultural projects and assisted in identifying areas for further involvement by Extension staff. He also designed an agricultural development strategy for Save to follow in providing assistance in Africa.
DIFFUSION OF AGRICULTURAL INNOVATION

Donor: Agency for International Development
Contract No.: Not available
Account No.: 71-2001
Location: Nigeria, Brazil, India
Duration: December 1964-December 1968
Budget: $1,149,700

Key MSU Faculty: Everett Rogers, Director (Communications)

Project Goals: To increase the understanding of the change process in rural societies, and to develop improved research methods for the study of diffusion and adoption of innovation in traditional societies.

Project Plans/Objectives:
1. To analyze the relative success, or lack of success, in programs of change in agricultural production in about 80 villages in each country.
2. To study the role of innovators and opinion leaders in about 20 villages in each country.
3. To study the specific techniques and incentives for the adoption of the innovation introduced in a selected sample of villages studied.
4. To establish a Diffusion Documents Center at MSU for collecting publications dealing with the diffusion of innovation.
5. To develop a computer simulation program on innovation.

Cooperating Institutions: University of Minas Gerais in Belo Horizonte, Brazil; the Economic Development Institute, University of Nigeria in Enugu, Nigeria; and the National Institute of Community Development in Hyderabad, India

Location of Documentation: Information concerning this project can be obtained from Dr. Everett Rogers, Annenberg School of Communications, University of Southern California, University Park, Los Angeles, CA 90087.
EDUCATION IN-SERVICE TRAINING

Donor: Associations of American Schools with funds from the U.S. Department of State
Contract No.: Varies annually
Account No.: 71-2031
Location: Mexico, Guatemala, Honduras, El Salvador, Costa Rica, Nicaragua, Colombia
Duration: Begun in 1962 but formalized July 1968-December 1979
Budget: Approximately $30,000-$40,000 per year

Key MSU Faculty: R. Featherstone, Director (Educational Administration); F. Vescaloni (Educational Administration)

Project Goals: To develop, in collaboration with the American Schools Associations in Mexico and Central America, continuing programs of teacher education school program improvements, and programs of educational research and publication.

Project Plans/Objectives: To appoint 1-12 MSU faculty yearly as short-term overseas staff members to help in assistance programs at American schools in Mexico and in Central America.

Cooperating Institutions: American school members of the Associations in Mexico and in Central America

Location of Documentation: Information on this project can be obtained from R. Featherstone (Teacher Education).

Project Summary Comment: This in-service activities program contributes to the international extension of education. Both American and host country teachers are helped in degree programs, and some schools are assisted in faculty training and teaching skills.
EMPLOYMENT AND ENTERPRISE

Donor: Harvard University Institute of International Development with funds from the Agency for International Development

Contract No.: DAN-5426-C-00-4098-00 (AID/ Harvard); ORD 37068 (MSU)

Account No.: 71-4019

Location: Worldwide

Duration: January 1985-September 1989

Budget: $106,654 (initial budget)

Key MSU Faculty: D. Mead, Co-Director (Agricultural Economics); C. Liedholm, Co-Director (Agricultural Economics)

Project Goals: To undertake research and assistance in the area of employment and enterprise policy.

Project Plans/Objectives:

1. To review prior experience in the area, particularly as it relates to policies towards the encouragement of employment and enterprise development.
2. To review the state-of-the-art literature concerning research methodologies in this area.
3. To formulate a general approach to research and technical assistance in this area.

The above objectives include the following activities:

1. To perform a preliminary policy assessment, designed to review current policies as they impinge on employment and enterprise development.
2. To generate preliminary reviews of data available in this area.
3. To assess employment potential and ways to facilitate more rapid growth of employment.

Long-term research and assistance activities will include working with AID Missions:

1. To assist Mission staff to increase their own understanding of policy issues, so they are able to engage in policy dialog with host country decision-makers.
2. To establish or strengthen policy analysis units within host governments.
3. To conduct research on the policy context in which particular AID projects operate in an effort to improve that policy context so that the project can be more effective.

Cooperating Institutions: Harvard University’s Institute for International Development (prime contractor); Development Alternatives Incorporated (sub-contractor)

Location of Documentation: Information on the budget is located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator; more detailed project information is available from D. Mead, 201 Old Botany.

Project Summary Comment: This project builds upon the expertise gained by MSU faculty in previous projects (i.e., “Poor Rural Households”, “Small Scale Industry”, “Rural Off-Farm Employment”, etc.). MSU’s participation will largely occur in the development of methodology and in long-term analysis and assistance to two countries to be designated in consultation with AID missions.
EVALUATION AND OPERATION OF AGRICULTURAL MARKETING BOARDS

Donor: Agency for International Development, Government of Tanzania
Contract No.: AID/afr-562
Account No.: 71-1985
Location: Tanzania
Duration: July 1968-December 1969
Budget: $140,000

Key MSU Faculty: H. Kriesel, Director (Agricultural Economics); G. Johnson, Campus Coordinator (Agricultural Economics); H. Larzelere (Agricultural Economics)

Project Goals: To conduct a comprehensive study of the marketing and pricing system, and the organization and management of the marketing boards and cooperatives, and to prepare a detailed time-phased agricultural marketing and pricing program and an implementation plan for improving the efficiency of the cooperatives and of the marketing system.

Project Plans/Objectives:
1. To historically compare price policy issues in both domestic and world market contexts.
2. To evaluate marketing boards in terms of their administrative nature and functions, both as to effectiveness in serving existing and desirable policies and their efficiencies of performance.
3. To evaluate cooperatives in terms of their economic efficiency, both internally and in relationship to other entities, and their effectiveness in performing desired functions.

Cooperating Institutions: Ministry of Agriculture, Food and Cooperatives, Cooperative College at Moshi, FAO, NORDIC Advisors

Location of Documentation: Project reports can be obtained from H. Kriesel, 206C Center for International Programs.

Project Summary Comment: The project succeeded in identifying the extent and sources of loss within the marketing system, it established base line information on cooperatives in Tanzania, and it identified the shortcomings of contractual procedures involving transport. Findings also showed how the marketing of one commodity subsidized the marketing of another. A comparison of maize marketing costs over time presented in the final report, Agricultural Marketing in Tanzania, Background Research and Policy Proposals (written by H. Kriesel, C. Laurent, C. Halpern, and H. Larzelere and published in June 1970), is continually being updated by the Tanzanian government and used in its own marketing analysis. Information on this report can be obtained from H. Kriesel, 206C Center for International Programs.
FARMING SYSTEMS SUPPORT

Donor: University of Florida with funds from the Agency for International Development
Contract No.: Memorandum of Understanding
Account No.: 71-4248
Location: MSU campus, Worldwide
Duration: September 1983-August 1986
Budget: $50,000 (augmented annually)

Key MSU Faculty: M. Esmay, Program Leader (Agricultural Engineering); D. Isleib, Administrative Coordinator (Institute of International Agriculture); R. Freed (Crop & Soil Science); M. Andrews (Cooperative Extension); H. Bittenbender (Horticulture); J. Artis (Sociology); D. Fienup (Agricultural Economics)

Project Goals: To provide a resource for the Farming Systems Support Project at the University of Florida, Gainesville, that conducts farming systems projects in developing countries.

Project Plans/Objectives:
1. To assist in the design and evaluation of projects.
2. To train a group of associates (faculty and graduate students) on the MSU campus to participate in teams as farming systems researchers.
3. To provide training seminars to interested parties in order to promote and broaden interest in the farming systems concept.

Cooperating Institutions: Six other U.S. universities acting as "entities" coordinating activities with the University of Florida

Location of Documentation: Further information on this project can be obtained from M. Esmay (Agricultural Engineering).

Project Summary Comment: MSU has entered into an agreement with the AID/Farming Systems Support Project under the leadership of the University of Florida. This program provides technical assistance, training, and networking support to practitioners and administrators of farming systems research programs. In August 1983, MSU conducted the first intensive farming systems research and development workshop to be held off the University of Florida campus. The MSU leaders of the workshop were trained in intensive sessions at the University of Florida in June and July, and then conducted the MSU program for nearly 30 faculty and U.S. and international graduate students from MSU and other universities. This is the first workshop among several to be held in the U.S. and overseas in the next several months. Africa is to receive special emphasis under this project. On campus, MSU uses the materials and modules to conduct farming systems research and development training sessions for many more professionals, and to develop course offerings with a farming systems emphasis.
FEEDING THE WORLD: INTERNATIONAL INTERDEPENDENCE

Donor: Agency for International Development (to Michigan Partners of the Americas)
Contract No.: Not available
Account No.: Same as Michigan Partners (71-2938)
Location: Michigan, MSU campus
Duration: 1982-1983
Budget: $20,000

Key MSU Faculty: M. Andrews (International Extension Training Programs)

Project Goals: To strengthen the capability of state and community level organizations to offer development education programs; to involve Michigan youth and adults in discussions about Michigan's links with developing countries and the social, economic, technological, and political factors affecting hunger and poverty in Michigan and in developing countries.


Location of Documentation: All documents pertaining to the objectives of this project are located in International Extension Training Programs, 48 Agriculture Hall.

Project Summary Comment: The Development Education Program of AID began the "Feeding the World" program in 1982, and provided funding for Michigan Partners of the Americas (headquartered on the MSU campus) to carry out the stated objectives. Among the accomplishments of the project are: 1) assist the state 4-H Youth Development Committees to plan the first 4-H Capitol Experience (workshops on citizenship, leadership, community service, and international interdependence for 60 teens from 20 countries); 2) assist the Michigan Association of Extension Homemakers and the Cooperative Extension Family Living Education Program to develop a resource packet on Women in Michigan and Latin America for use by local MAEff study groups as part of their 1983-84 International Program of Work emphasis; 3) assist the Lansing Hunger Concerns Coalition and Cooperative Extension Ag-Marketing Program to organize a Farmers' Week workshop on Hunger in Michigan and the World; Getting Food to the People Who Need It; 4) Assist the Center for Advanced Studies in International Development and the Michigan United Nations Association to organize a statewide outreach conference on Michigan and the World Community; 5) assist some 13 organizations to organize development education programs on topics ranging from hunger in the Horn of Africa to poverty and rehabilitation programs in the Dominican Republic.
FOOD FOR PEACE

Donor: Agency for International Development
Contract No.: AID/csd-6771
Account No.: 71-2047
Location: India, Korea, Pakistan, Egypt, Brazil, Tunisia
Duration: June 1964-June 1966
Budget: $124,040

Key MSU Faculty: L. Witt, Director (Agricultural Economics); C. Adrian (Political Science); G. Hansen and R. Luecke (Biochemistry); A. Haller (Sociology); K. Lawton (Crop & Soil Science); M. Perkins, D. Bonnen, D. Hathaway, and R. Stevens (Agricultural Economics)

Project Goals: To develop a research program—a research map—to provide a comprehensive statement of the major issues relevant to Food For Peace and to recommend research projects to help resolve the issues.

Project Plans/Objectives: After identifying the major issues relevant to Food For Peace, to devise research problem descriptions including research rationale, discussion of most applicable research completed or in process, list of objectives, suggested research personnel, and priorities. Areas identified include:
1. The Place of Food Aid in U.S. Foreign Aid Programs.

Cooperating Institutions: UNICEF Department of Nutrition, Philadelphia General Hospital, University of Arizona, University of Chicago, University of Minnesota, Duke University, Indiana University, University of Maryland, Vanderbilt University, Virginia Polytechnical Institute, Cornell University, USDA, AID, National Institutes of Health, Economic Research Service, Office of Technical Cooperation and Research

Location of Documentation: A multi-volume report written by Lawrence Witt exploring the economic, public policy, social and humanitarian, health and nutrition, and population and food supply issues is available from H. Riley (Agricultural Economics).
FOOD SECURITY IN AFRICA COOPERATIVE AGREEMENT

Donor: Agency for International Development
Contract No.: DAN-II90-A-00-4092-00
Account No.: 71-2004 (Core); 71-2026 (Zimbabwe)
Location: Africa (Zimbabwe, Mali, Senegal)
Duration: September 1985-August 1987
Budget: Core: $600,000; Zimbabwe: $400,000 (additional amendments to be negotiated)

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); M. Weber, Director (Agricultural Economics); J. Staatz, H. Riley, S. Buccola, E. Crawford, J. Shaffer, and R. Bernsten (Agricultural Economics)

Project Goals: To assist less developed countries, especially in Africa, in formulating alternative institutions and management processes that deal with critical short- and medium-term food supply problems, and that are consistent with longer-term strategies for achieving more reliable, productive, and dynamic food systems that benefit both producers and consumers.

Sub-goals of the project include 1) to 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) to develop a new understanding of how to upgrade institutional and professional capabilities for managing national food systems.

Project Plans/Objectives: In selected African countries, the project will aim:
1. To analyze how alternative structures of incentives, as reflected in prices, technology, and institutions, influence whether farmers devote their resources to expanding domestic food production, export crop production, or other employment activities that can increase their incomes and effective food demand.
2. To analyze alternative roles and responsibilities of both the public and private sector in the development of productive and reliable food systems effectively coordinated through input and output markets, including investigation of investment needs and incentives, alternative ownership and management arrangements, and other necessary institutional, infrastructural, and technology changes that structure the nature of the market.
3. To analyze alternative uses of food aid and administrative procedures that will contribute to medium- and longer-term food security goals.

The Zimbabwe sub-project objectives include:
1. To develop a conceptual framework for analysis of food security issues in Southern Africa.
2. To conduct applied research emphasizing food security policy and collection of primary data.
3. To train local research professionals.
4. To promote a food security communication network among Southern African universities.

Cooperating Institutions: Faculty of Agriculture, University of Zimbabwe; other host-country universities and institutions to be identified

Location of Documentation: Research proposals and project contracts are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
Project Summary Comment: In recent years, food security has emerged as a critical rural development problem. There is a pressing need for applied research to develop new conceptual and operational strategies, particularly in order to link short- and mid-term food security to longer-term rural development strategies. Many current rural development programs are being adversely affected by the more immediate need to deal with short-term food supply and distribution shortfalls. As a result, in some cases capital investments aimed at achieving long-term rural development goals are being threatened. This project, in its initial stages, seeks to address these issues in the context of understanding domestic food systems in selected African countries by considering, specifically, at least five dimensions of food security: 1) grain reserves, imports, and food aid; 2) domestic food production; 3) domestic marketing of food and agricultural inputs; 4) food consumption; and 5) national food security planning and the design of food strategies. Three main activities are to be carried out by the project: 1) applied research in selected national food systems; 2) networking through the dissemination of preliminary working papers developed as a result of the conduct of applied research and through holding seminars and workshops on relevant issues, as well as the generation and circulation of a newsletter; and 3) training of host-country professionals and students in data collection and analysis, including the design and test piloting of a short-term training program.
The growing involvement of MSU's participation in international development activities was enhanced in 1960 with a five-year $1,000,000 grant from the Ford Foundation "to support individual and group faculty research in four functional areas: (1) politics and administration; (2) economics and business; (3) communications; (4) education and national development." Included in this objective was a heavy emphasis on assisting professors returning from overseas tours in completing and publishing their research in order to provide a feedback mechanism to build an international perspective into coursework and campus activities. Graduate students were included when they were provided with the means to do their dissertation research while serving overseas on contract projects.

Funds received from Ford were administered through the office of the Dean of International Programs, established in 1958 under Glenn Taggert. Some 275 projects were funded during the years 1961-1968 with the result that area studies centers and institutes on the MSU campus became more firmly established and able to meet the growing demands funding agencies were making. As a result of the institutional strengthening the initial grant provided, a further $1,250,000 was awarded in 1963 by Ford to MSU to further develop its international programs over the ensuing ten years.

A summary of the projects funded is presented in the following pages. The first set of projects is organized according to the area studies center or institute through which funding was channelled; the second set is organized according to general area of research. Further information on Ford Foundation-funded projects, can be obtained from University Archives and Special Collections, Main Library. Project annual reports include a listing of all publications generated as a result of funding activities.
PROJECTS RECEIVING SUPPORT FROM THE INTERNATIONAL PROGRAMS FORD FOUNDATION GRANT
A. Allocations made to Centers and Institutes, Cumulative 1961-1968

<table>
<thead>
<tr>
<th>Title or Subject</th>
<th>Area</th>
<th>Year</th>
<th>Amount</th>
<th>Key MSU Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. AFRICAN STUDIES CENTER</strong></td>
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<tr>
<td>a. International Projects</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Development &amp; Transportation</td>
<td>East Africa</td>
<td>1966</td>
<td>3,000</td>
<td>Birdsall, Stephen</td>
</tr>
<tr>
<td>Requirements: An East African Example</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Study of Urban Structure of Dar es Salaam, Tanzania</td>
<td>Tanzania</td>
<td>1962</td>
<td>4,000</td>
<td>deBlij, Harm</td>
</tr>
<tr>
<td>Field Study in Nairobi</td>
<td>Kenya</td>
<td>1967</td>
<td>6,500</td>
<td>deBlij, Harm</td>
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<tr>
<td>Research assistance in Nigeria</td>
<td>Nigeria</td>
<td>1962</td>
<td>300</td>
<td>Edwards, Alfred</td>
</tr>
<tr>
<td>Study of Dress and Adornment as Cultural Phenomena</td>
<td>Africa</td>
<td>1965</td>
<td>5,000</td>
<td>Eicher, Joanne</td>
</tr>
<tr>
<td>Development of the Eastern Nigeria Railway System</td>
<td>Nigeria</td>
<td>1966</td>
<td>3,520</td>
<td>Eluwa, Gabriel</td>
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<tr>
<td>On-campus preparation for African research</td>
<td>Nigeria, Uganda</td>
<td>1961</td>
<td>3,300</td>
<td>Hanna, William</td>
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<tr>
<td>Comparative Study of the Urban Elite in Nigeria and Uganda</td>
<td>Nigeria, Uganda</td>
<td>1963</td>
<td>23,250</td>
<td>Hanna, William</td>
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<tr>
<td>Research on Development of Indirect Rule in Northern Nigeria</td>
<td>Nigeria, Uganda</td>
<td>1967</td>
<td>1,500</td>
<td>Hannah, Robert</td>
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<tr>
<td>Field Investigation on Educational—Problems in Nigeria</td>
<td>Nigeria</td>
<td>1962</td>
<td>1,000</td>
<td>Hanson, John</td>
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<tr>
<td>The Emergence of Organized Labor and the Role of Independent Churches in Pre-independence Anticolonial Movements Zimbabwe in the Central African Federation</td>
<td>Zambia, Malawi</td>
<td>1963</td>
<td>2,010</td>
<td>Hooker, James</td>
</tr>
<tr>
<td>Biography of George Padmore</td>
<td>Africa</td>
<td>1964</td>
<td>7,000</td>
<td>Hooker, James</td>
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<tr>
<td>Title or Subject</td>
<td>Area</td>
<td>Year</td>
<td>Amount</td>
<td>Key MSU Personnel</td>
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<tr>
<td>-----------------------------------------------------------</td>
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<tr>
<td>Labor Problems in West Africa</td>
<td>West Africa</td>
<td>1961</td>
<td>3,800</td>
<td>Kannappan, Subbiah</td>
</tr>
<tr>
<td>Pilot Project Concerning Feasibility Study of the Chadic Languages</td>
<td>Africa</td>
<td>1965</td>
<td>1,400</td>
<td>Kraft, Charles</td>
</tr>
<tr>
<td>Comparative Study of Chadic Languages</td>
<td>Africa</td>
<td>1967</td>
<td>6,300</td>
<td>Kraft, Charles</td>
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<tr>
<td>Summer writing grant</td>
<td>Africa</td>
<td>1967</td>
<td>1,800</td>
<td>Miller, Norman</td>
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<tr>
<td>Travel grant for visiting professor from Ghana</td>
<td>Ghana</td>
<td>1967</td>
<td>2,500</td>
<td>Nukunya, Goodwin</td>
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<tr>
<td>Assistant to Opabor for preparation of second year Igbo teaching materials</td>
<td>Nigeria</td>
<td>1967</td>
<td>600</td>
<td>Okonkwo, Augustine</td>
</tr>
<tr>
<td>Preparation of second year Igbo teaching materials</td>
<td>Nigeria</td>
<td>1967</td>
<td>1,500</td>
<td>Opabor, Alfred</td>
</tr>
<tr>
<td>The Egbados</td>
<td>Nigeria</td>
<td>1965</td>
<td>9,000</td>
<td>Osborne, Oliver</td>
</tr>
<tr>
<td>Research on Human Factors in Resource Conservation Policies</td>
<td>Africa</td>
<td>1965</td>
<td>1,500</td>
<td>Petrides, George</td>
</tr>
<tr>
<td>Socio-linguistic Appraisal of the Languages of Northeast Africa</td>
<td>Africa</td>
<td>1963</td>
<td>2,000</td>
<td>Pia, J.J.</td>
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<tr>
<td>Journal of African Languages</td>
<td>Africa</td>
<td>1964</td>
<td>10,462</td>
<td>Richardson, Irvine</td>
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<tr>
<td>Administration travel grant in France</td>
<td>Africa</td>
<td>1967</td>
<td>600</td>
<td>Richardson, Irvine</td>
</tr>
<tr>
<td>The Study of Fulani as Spoken in Northern Cameroon</td>
<td>Cameroon</td>
<td>1967</td>
<td>2,600</td>
<td>Smith, David</td>
</tr>
<tr>
<td>The Social and Psychological Basis of Political Behavior Among the Bena of Tanganyika</td>
<td>Tanzania</td>
<td>1965</td>
<td>3,000</td>
<td>Swartz, Marc</td>
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<tr>
<td>Title or Subject</td>
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<td>Year</td>
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<td>Key MSU Personnel</td>
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<td>-----------------</td>
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</tr>
<tr>
<td>Field Training in Swahili Linguistics</td>
<td>Kenya/Tanzania</td>
<td>1967</td>
<td>1,650</td>
<td>Wolczanski, Katherine</td>
</tr>
<tr>
<td>Preparation of second year Yoruba teaching materials</td>
<td>Nigeria</td>
<td>1964</td>
<td>10,000</td>
<td>Wolff, Hans</td>
</tr>
<tr>
<td>Study of the Historical Development of Local-Level Administration in Sierra Leone and Northern Nigeria</td>
<td>Sierra Leone</td>
<td>1965</td>
<td>4,000</td>
<td>Wylie, Kenneth</td>
</tr>
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</table>

b. Center Support

<table>
<thead>
<tr>
<th>Title</th>
<th>Area</th>
<th>Year</th>
<th>Amount</th>
<th>Key MSU Personnel</th>
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</thead>
<tbody>
<tr>
<td>Development of Library resources in support of African Studies Center</td>
<td>African Studies Center</td>
<td>1966</td>
<td>21,000</td>
<td>Chapin, Richard</td>
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<tr>
<td>General research support for African Studies Center</td>
<td>African Studies Center</td>
<td>1961</td>
<td>235,200</td>
<td>Hughes, Charles</td>
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<tr>
<td>General research support for African Studies Center</td>
<td>African Studies Center</td>
<td>1961</td>
<td>15,000</td>
<td>Jacobson, Eugene</td>
</tr>
</tbody>
</table>

II. INSTITUTE OF INTERNATIONAL AGRICULTURE

a. International Projects

<table>
<thead>
<tr>
<th>Title</th>
<th>Area</th>
<th>Year</th>
<th>Amount</th>
<th>Key MSU Personnel</th>
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</thead>
<tbody>
<tr>
<td>An Analysis of Efficiency of the Response to Fertilizers of Selective Primitive and Modern Beans</td>
<td>Costa Rica</td>
<td>1968</td>
<td>3,150</td>
<td>Adams, Walter</td>
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<tr>
<td>An Analysis of the Beef Marketing System in Eastern Nigeria</td>
<td>Nigeria</td>
<td>1966</td>
<td>3,400</td>
<td>Billings, Martin</td>
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<tr>
<td>A Study to Determine Design Requirements of Irrigation Systems in Nigeria</td>
<td>Nigeria</td>
<td>1966</td>
<td>2,350</td>
<td>Cargill, Burt</td>
</tr>
<tr>
<td>A Study to Determine Design Requirements of Irrigation Systems in Nigeria</td>
<td>Nigeria</td>
<td>1966</td>
<td>2,350</td>
<td>Drury, James</td>
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<tr>
<td>Title or Subject</td>
<td>Area</td>
<td>Year</td>
<td>Amount</td>
<td>Key MSU Personnel</td>
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</tr>
<tr>
<td>Evaluations of Asphalt Barriers for Creating Rice Paddies on Permeable Soils in Taiwan</td>
<td>Taiwan</td>
<td>1967</td>
<td>2,970</td>
<td>Erickson, A.E.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Smucker, Alvin</td>
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<tr>
<td>Explanatory Study of Agricultural Mechanization in the Comilla District of East Pakistan</td>
<td>East Pakistan</td>
<td>1968</td>
<td>1,200</td>
<td>Esmay, Merle</td>
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<tr>
<td>Assessment of Pantothenic Acid Requirement of Laboratory Animals and Humans</td>
<td>Nigeria</td>
<td>1967</td>
<td>3,000</td>
<td>Hansen, Gaurth</td>
</tr>
<tr>
<td>Mexico</td>
<td>Guatemala</td>
<td></td>
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<tr>
<td>An Economic Reconciliation of Agricultural Production and Education Plans in Nigeria</td>
<td>Nigeria</td>
<td>1968</td>
<td>1,250</td>
<td>Johnson, Glenn</td>
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<tr>
<td>The Economics of Agricultural Research for Selected Tropical Countries</td>
<td>Jamaica</td>
<td>1968</td>
<td>4,220</td>
<td>Johnson, Glenn</td>
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<tr>
<td>Evaluation of Preparation Procedures</td>
<td>Nigeria</td>
<td>1967</td>
<td>3,239</td>
<td>Nickelsen, Olaf</td>
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<td>Exploratory Study of the Poinsettia and its Relatives in Central America</td>
<td>Costa Rica</td>
<td>1967</td>
<td>4,000</td>
<td>Sink, K.</td>
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<tr>
<td>Mexico</td>
<td>Mexico</td>
<td></td>
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<td>Guidance of a Forest Genetics Research Program in Argentina</td>
<td>Argentina</td>
<td>1966</td>
<td>3,000</td>
<td>Wright, Jonathan</td>
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<td>b. Institute Support</td>
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<td>General support for Institute of International Agriculture</td>
<td>Agriculture Institute</td>
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<td>An Ethnography of a Taiwanese Village Focusing on Culture Change &amp; Urban-Rural Linkages as Factors Influencing Culture Change in Taiwanese Villages</td>
<td>Taiwan</td>
<td>1965</td>
<td>5,986</td>
<td>Barnett, Wm. &amp; Nancy</td>
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<td>Occupational and Educational Aspirations of Indian High School Students</td>
<td>India</td>
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<td>Development of a Comparative and Interdisciplinary Program for the Study of Conflict &amp; Integration in Contemporary Asia</td>
<td>Asia</td>
<td>1966</td>
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<td>Traditional Theatre in Southeast Asia as a Channel of Communication</td>
<td>Asia</td>
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<td>The United States and the Chinese Communists</td>
<td>Asia</td>
<td>1967</td>
<td>500</td>
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<td>Changing Peasant Societies in East and Southeast Asia</td>
<td>Asia</td>
<td>1964</td>
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<td>The Taiwanese Peasant in Socio-Economic Transition</td>
<td>Taiwan</td>
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<td>The Taiwanese Peasant in Socio-Economic Transition</td>
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<td>Chinese Rural-Urban Migration in Taiwan</td>
<td>China</td>
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<td>2,800</td>
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<td>Japanese Art and Western Culture</td>
<td>Japan</td>
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<td>The Translation &amp; Analysis of the Logic Part of Avicenna's Danesh Namah-e Alai &amp; a Synopsis of Avicenna's Social Theory</td>
<td>India</td>
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<td>The Development of Communist China's Third-World Policy</td>
<td>China</td>
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<td>The Development of Communist China's Africa, Asia &amp; Latin America Policy</td>
<td>China</td>
<td>1966</td>
<td>1,500</td>
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<td>A Model Simulating the Effects of Birth Control Programs on Raising Per Capita</td>
<td>U.S.A.</td>
<td>1967</td>
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<td>Income in Developing Countries</td>
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<td>The Role of Women in Development in Comilla, East Pakistan</td>
<td>Bangladesh</td>
<td>1965</td>
<td>6,540</td>
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<td>Islam and Arab Socialism</td>
<td>Egypt</td>
<td>1965</td>
<td>8,150</td>
<td>Najjar, Fauzi</td>
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<td>Social Change in Rural East Pakistan: A Study of the Development of Economic</td>
<td>Bangladesh</td>
<td>1965</td>
<td>10,036</td>
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<td>&amp; Political Institutions in a Peasant Society</td>
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<td>Dynamics of Political Leadership and Power in Village India: A Case Study</td>
<td>India</td>
<td>1967</td>
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<td>Wealth &amp; Income Effects in Economic Analysis</td>
<td>Japan</td>
<td>1964</td>
<td>3,200</td>
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<td>The Political Development of Judicial Institutions in East and West</td>
<td>Australia</td>
<td>1966</td>
<td>11,763</td>
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<td>Study of the Development of the Purva Mimamse System of Indian Philosophy</td>
<td>India</td>
<td>1966</td>
<td>650</td>
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<td>Theory of Meaning According to Dignaga's Logical Treatise-Pramanasanukrtaya of 400</td>
<td>Asia</td>
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<td>Pakistan: The Creation of a Nation</td>
<td>Pakistan</td>
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<td>Charisma and After: Indian Politics on the Eve of the Nehru Era and a Look Into the Future</td>
<td>India</td>
<td>1964</td>
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<td>South Asia in World Affairs: An Analysis of the Foreign Policies of India &amp; Pakistan</td>
<td>India, Pakistan</td>
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<td>South Asia in World Affairs: An Analysis of the Foreign Policies of India &amp; Pakistan</td>
<td>India, Pakistan</td>
<td>1967</td>
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<td>A Re-examination of the Wo-kou Problem During the Chia-Ching Period (1522-66) of Ming China</td>
<td>People's Republic of China</td>
<td>1967</td>
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<td>Analysis of the 1955-56 Data Evaluating the Consequences of the First Ten Years of the Ceylon Village Development Program</td>
<td>Sri Lanka</td>
<td>1962</td>
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<td>An Exploratory Study of Socio-Cultural Factors in Land Transactions in East Punjab Villages</td>
<td>India</td>
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<td>Comparative Study of the Development of Literary Themes &amp; Forms in 19th &amp; 20th Century English &amp; Indian Literature</td>
<td>India</td>
<td>1964</td>
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<td>Development of Library resources in support of the Asian Studies Center</td>
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<td>General support for Asian Studies Center</td>
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<td>1962</td>
<td>283,127</td>
<td>Ross, William</td>
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<td>National Taiwan University Exchange Program</td>
<td>Taiwan</td>
<td>1964</td>
<td>8,000</td>
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<td>Chinese Language and Literature Program Development</td>
<td>Asia</td>
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### IV. INSTITUTE FOR INTERNATIONAL BUSINESS & ECONOMIC DEVELOPMENT STUDIES

#### a. International Projects

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<th>Title or Subject</th>
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<td>The Price and Non-price Competitive Effects of Devaluation: Canada 1956-64</td>
<td>Canada</td>
<td>1966</td>
<td>680</td>
<td>Glinman, Peter</td>
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<td>Contrasting Orientations &amp; Career Patterns of the Overseas Executive</td>
<td>General</td>
<td>1962</td>
<td>6,068</td>
<td>Gonzalez, Richard</td>
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<td>International Retail Operations in Developing and Developed Nations</td>
<td>Turkey</td>
<td>1966</td>
<td>9,226</td>
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<td>The Role of the Business Leader in the Development of Turkey</td>
<td>Turkey</td>
<td>1965</td>
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<td>Jennings, Eugene</td>
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<td>Human Resource Bottlenecks in Economic Development: A Study of Manpower Problems in the &quot;Organized&quot; Sector of the Indian Economy</td>
<td>India</td>
<td>1965</td>
<td>2,000</td>
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<td>The European Economic Community &amp; Israel</td>
<td>Israel</td>
<td>1964</td>
<td>13,805</td>
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<td>Alternative Commercial Policies: Their Effect on the American Economy</td>
<td>Brazil</td>
<td>1966</td>
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<td>Commodity Marketing in Mexico: A Study of Comparative Marketing Practices and Institutions in a Developing Economy</td>
<td>Mexico</td>
<td>1965</td>
<td>1,850</td>
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<td>Electrical Power and Economic Growth</td>
<td>Europe</td>
<td>1966</td>
<td>3,200</td>
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<td>The Acceptance Process of Marketing Research in Brazilian Enterprise</td>
<td>Brazil</td>
<td>1966</td>
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| The Economics of the Creation of Manufacturing Methods for Low-Wage, Tropical Countries & the Related Technological Diffusion Process | Asia/Africa| 1965 | 15,002 | Strassmann, Paul }
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<td><strong>A Study of the Institutionalizing of the Discipline of Business Administration</strong></td>
<td>Brazil</td>
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<td>1,446</td>
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<td>Within the Brazilian University System</td>
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<td><strong>Institution Building in Business Administration: The Brazilian Experience</strong></td>
<td>Brazil</td>
<td>1967</td>
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<td><strong>Funding an Institute of Technological and Comparative Planning</strong></td>
<td>General</td>
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<td><strong>Optimal Steel Expansion: Staging and Phasing of Multi-Product Capacity Given</strong></td>
<td>Developing</td>
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<td>The Communications Habits of the Nsukka Igbo</td>
<td>Nigeria</td>
<td>1965</td>
<td>3,080</td>
<td>Axinn, George</td>
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<td>Traditional Theatre in Southeast Asia as a Channel of Communication</td>
<td>Asia</td>
<td>1963</td>
<td>24,595</td>
<td>Brandon, James</td>
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<td>A Study of Governmental Policies and Regulations in Mexico with Respect to</td>
<td>Mexico</td>
<td>1962</td>
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<td>Broadcasting, Particularly those Relating to Educational Radio &amp; Television</td>
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<td>Ideology, Alienation &amp; Receptivity to Change in Selected Cultures</td>
<td>Central America</td>
<td>1965</td>
<td>21,604</td>
<td>Kumata, Hideya</td>
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<td>Use of the Media of Mass Communication in Relation to Political Attitudes of</td>
<td>Costa Rica</td>
<td>1963</td>
<td>7,797</td>
<td>McNelly, John</td>
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<td>Research &amp; Training Program for Audiology in Nigeria</td>
<td>Nigeria</td>
<td>1965</td>
<td>3,713</td>
<td>Oyer, Herbert</td>
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<td>Research on the E. European Press</td>
<td>Eastern Europe</td>
<td>1967</td>
<td>5,260</td>
<td>Smith, Stanley</td>
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<td>Investigation of Some Correlates of Risk Orientation</td>
<td>Costa Rica</td>
<td>1963</td>
<td>2,550</td>
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<td>Ideology, Alienation &amp; Receptivity to Change in Selected Cultures</td>
<td>Central America &amp; elsewhere</td>
<td>1962</td>
<td>38,451</td>
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<td>Five Nation Study</td>
<td>Finland, Japan, Costa Rica, Mexico, U.S.</td>
<td>1967</td>
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b. Institute Support

- General support for International Communications Institute
  - Communications Institute
  - Year: 1964
  - Amount: 164,750
  - Key Personnel: Bain, Jack

VI. ECONOMIC & AGRICULTURAL DEVELOPMENT INSTITUTE-SUPPORT

- General support for Economic and Agricultural Development Institute
  - Economic & Agricultural Inst.
  - Year: 1964
  - Amount: 40,787
  - Key Personnel: Hendry, James

VII. INSTITUTE FOR INTERNATIONAL STUDIES IN EDUCATION

a. International Projects

- Position of Foreign Student Advisor
  - General
  - Year: 1968
  - Amount: 2,000
  - Key Personnel: Benson, August; Miller, Richard

- Teacher Unionization
  - General
  - Year: 1965
  - Amount: 4,900
  - Key Personnel: Blum, Albert

- A Study of Education as an Agent of Social and Technological Change
  - General
  - Year: 1960
  - Amount: 8,220
  - Key Personnel: Brembeck, Cole
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<td>Use of Education as an Instrument for National Development in Selected Underdeveloped Countries</td>
<td>Pakistan</td>
<td>1961</td>
<td>5,397</td>
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<td>A Study of Educational Reform in Thailand</td>
<td>Thailand</td>
<td>1964</td>
<td>2,500</td>
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<td>Development of Educational Research in Latin America</td>
<td>Latin America</td>
<td>1961</td>
<td>9,118</td>
<td>Brookover, Wilbur</td>
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<td>Cross-Cultural Analysis of Youth Culture</td>
<td>U.S. &amp; Japan</td>
<td>1964</td>
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<td>El Libro de Texto Gratuito: A Mexican Case Study in Education &amp; its Role in Social Change</td>
<td>Mexico</td>
<td>1966</td>
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<td>Academic Motivation in Cross-Cultural Environments</td>
<td>Puerto Rico</td>
<td>1962</td>
<td>4,030</td>
<td>Farquhar, William</td>
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<td>Study of Vocational &amp; Technical Education in East Africa</td>
<td>East Africa</td>
<td>1966</td>
<td>821</td>
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<td>Japanese Educational Program of Soka Gakkai</td>
<td>Africa</td>
<td>1963</td>
<td>2,000</td>
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<td>Research on the Nigerian Educational System</td>
<td>Nigeria</td>
<td>1961</td>
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<td>A Study of Teacher Training Programs in Relationship to National Development in Sub-Saharan Africa</td>
<td>Africa</td>
<td>1963</td>
<td>5,700</td>
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<td>A Study of Post-School Careers of Graduates of Commercial, Technical, Agricultural and Grammar School in Selected English-Speaking Sub-Saharan African States</td>
<td>Africa</td>
<td>1967</td>
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<td>Education and the Development of Nations</td>
<td>U.S.</td>
<td>1963</td>
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<td>Cost/Productivity Relationships in Central American Universities</td>
<td>Central America</td>
<td>1965</td>
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<td>Follow-up Study of Graduates from Taiwan Vocational Agriculture Schools for years 1950, 1955 &amp; 1959</td>
<td>Taiwan</td>
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<td>8,361</td>
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<td>Taiwan</td>
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<td>Taiwan</td>
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<td>Study of Educational Planning in Lebanon</td>
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<td>922</td>
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<td>The Human Resource Development Indicator Study</td>
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<td>1966</td>
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<td>Organization and Administration of Education in the U.S.S.R.</td>
<td>U.S.S.R.</td>
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<td>Africa</td>
<td>1963</td>
<td>500</td>
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<td>A Study of the Origin, Development and Appraisal of Selected Teacher Education Progress Related to International Understanding</td>
<td>U.S.</td>
<td>1964</td>
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<td>A Study of Education for Selected Farm Settlements in the Eastern Region of Nigeria</td>
<td>Nigeria</td>
<td>1964</td>
<td>12,740</td>
<td>Stevens, William R.</td>
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<td>Cross-Cultural Learning</td>
<td>General</td>
<td>1966</td>
<td>10,000</td>
<td>Useem, Ruth</td>
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<td>The American School of Guatemala &amp; the Relationship to Education in Guatemala</td>
<td>Guatemala</td>
<td>1966</td>
<td>750</td>
<td>Vaughan, Herbert</td>
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<td>Concerning the Study of Curricular and Informal Learning Experiences in the Development of an Attitude</td>
<td>General</td>
<td>1967</td>
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<td>Ward, Ted</td>
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b. Institute Support

General support for Education and Development Center research | Education Center | 1963 | 111,600 | Brembeck, Cole |

VIII. LATIN AMERICAN STUDIES CENTER

a. International Projects

An Attempt to Establish the Relationships between Psychological and Cultural Processes in the West Indies | West Indies | 1967 | 576 | Aronoff, Joel |
The Beginning of Organized Clerical Opposition to the 1910 Revolution in Mexico & Texas | Mexico & Texas | 1967 | 500 | Bailey, David |
The Cristero Rebellion: A Confrontation Between Traditional Values and a Twentieth Century Social Revolution in Mexico | Mexico | 1968 | 1,497 | Bailey, David |
Ecology in Latin America | Latin America | 1966 | 1,396 | Baker, Rollin |
Biological Studies of Cotton Rats (genus Sigmodon) in Mexico | Mexico | 1968 | 1,000 | Baker, Rollin |
Management, Unions and the White Collar Employee in Mexico and in the U.S. in Mexico | Mexico | 1965 | 4,848 | Blum, Albert |
Latin American library acquisitions in Latin America | Latin America | 1968 | 300 | Bode, Kenneth |
Villavicencio: A Study of Environmental Conditions in the Llanos Frontier of Colombia in Colombia | Colombia | 1964 | 6,944 | Brunnschweiler, Dieter |
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<tr>
<td>Conference on &quot;Mexico on Microfilm&quot;</td>
<td>Mexico</td>
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<td>A Study of Mexican Converts to Judaism in the Port City of Veracruz--A Study of Religious and Cultural Change, Motivations for Change, and the Changes Themselves in Mexico</td>
<td>Mexico</td>
<td>1967</td>
<td>500</td>
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<td>Marketing Activities in Oaxaca</td>
<td>Mexico</td>
<td>1968</td>
<td>500</td>
<td>Cook, Scott</td>
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<td>The Economic Role of Women and Common-Law Unions: A Functional Analysis in an Oaxaca Community, Mexico</td>
<td>Mexico</td>
<td>1967</td>
<td>500</td>
<td>El Guindi, Fadwa</td>
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<td>A Study of the Changes in the Consumption Pattern for Food Under Conditions of Rapid Economic Growth: The Case of Puerto Rico</td>
<td>Puerto Rico</td>
<td>1966</td>
<td>1,500</td>
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<td>A Cross-Cultural Comparative Analysis of the Function &amp; Meaning of Work</td>
<td>Guatemala</td>
<td>1964</td>
<td>3,442</td>
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<td>Costa Rica</td>
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<td>Comparative Analysis on Values Related to Function and Meaning of Work</td>
<td>Mexico</td>
<td>1967</td>
<td>930</td>
<td>Faunce, William</td>
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<td>Attitudes Toward Disability in Latin America &amp; the U.S.</td>
<td>Costa Rica</td>
<td>1964</td>
<td>1,008</td>
<td>Felty, John</td>
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<td>Patterns of Social Integration Among Industrial Workers: A Comparative Analysis</td>
<td>Colombia, Peru,</td>
<td>1965</td>
<td>19,041</td>
<td>Form, William</td>
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<td>India, Italy</td>
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<td>A Study of the press of Guatemala and El Salvador</td>
<td>Guatemala</td>
<td>1968</td>
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<td>Attitudes Toward Education and Mental Retardation</td>
<td>Colombia</td>
<td>1968</td>
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<td>Brazilian Rural Sociology</td>
<td>Brazil</td>
<td>1968</td>
<td>9,095</td>
<td>Haller, A.O.</td>
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<td>Labor Education Director's Convention</td>
<td>New York</td>
<td>1963</td>
<td>100</td>
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<td>Hierarchical Differences in Ideological Orientations Among Latin American Labor Leaders</td>
<td>Mexico</td>
<td>1964</td>
<td>600</td>
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<td>The Role of the Latin American Christian Trade Unionists in Contemporary Reform Movements</td>
<td>Latin America</td>
<td>1966</td>
<td>1,478</td>
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<td>Preliminary field trip for research</td>
<td>Mexico</td>
<td>1968</td>
<td>63</td>
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<td>Life, Works, Themes and Inspiration of the Author, Monteiro Lobato</td>
<td>Brazil</td>
<td>1967</td>
<td>2,050</td>
<td>Hayden, Rose</td>
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<td>A Geographic Investigation of the Guatemalan Fishing Industry</td>
<td>Guatemala</td>
<td>1966</td>
<td>1,063</td>
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<td>A Cross-Cultural Study of Attitudes Toward the Education &amp; Rehabilitation of Handicapped Persons</td>
<td>Colombia</td>
<td>1964</td>
<td>4,327</td>
<td>Jordan, John</td>
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<td>A Geographic Investigation of Irrigated Agriculture In the Chicama Valley, Peru</td>
<td>Peru</td>
<td>1966</td>
<td>579</td>
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<td>The Relationship of Contemporary International Art and its Impact on Art Forms in Selected Cities of Brazil</td>
<td>Brazil</td>
<td>1967</td>
<td>2,200</td>
<td>Leepä, Allen</td>
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<td>An Intensive Study of the Offerings &amp; the Facilities at the University of Toluca</td>
<td>Mexico</td>
<td>1967</td>
<td>2,714</td>
<td>Mansour, George</td>
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<td>The Catfishes of the Families Astrolepidae and Loricariidae from Ecuador</td>
<td>Ecuador</td>
<td>1966</td>
<td>625</td>
<td>Ovchynnyk, Michael</td>
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<td>Monitoring and Evaluation of the Role of Food Marketing in Economic Development</td>
<td>Colombia</td>
<td>1964</td>
<td>4,173</td>
<td>Slater, Charles</td>
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<td>A Comparative Study of Two Mexican Fishing Villages</td>
<td>Mexico</td>
<td>1965</td>
<td>7,802</td>
<td>Spielberg, Joseph</td>
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<td>Technological Change and Economic Development: The Manufacturing Experience of Mexico and Puerto Rico</td>
<td>Mexico, Puerto Rico</td>
<td>1968</td>
<td>200</td>
<td>Strassmann, Paul</td>
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<td>The Biography and Study of the Literary Creation of Gonzalo Zaldumbide</td>
<td>Ecuador</td>
<td>1967</td>
<td>583</td>
<td>Taylor, Terry, Teran, Carlos</td>
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<td>A Biosystematic Study of the Genus Guardiola Literature of Fantasy &amp; Imagination</td>
<td>Mexico</td>
<td>1967</td>
<td>5,433</td>
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b. Center Support

| Development of Library resources in support of Latin American Studies Center     | Latin American Studies Center | 1965 | 17,401 | Chapin, Richard   |
| General Course Development                                                      | Latin American Studies Center | 1965 | 5,000   | Lanzillotti, Robert |
| General support for Latin American Studies Center                               | Latin American Studies Center | 1963 | 140,077 | Wood, Garland     |

PROJECTS RECEIVING SUPPORT FROM THE INTERNATIONAL PROGRAMS FORD FOUNDATION GRANT

B. Direct Grants from the Dean of International Programs

I. INTERNATIONAL ECONOMICS AND ECONOMIC DEVELOPMENT

<p>| Estimated Economic Effects of Future Adjustments in Public Law 480 Imports Upon the Colombian Economy | Colombia | 1962 | 5,598 | Adams, Dale       |
| Role of Agriculture in Economic Development                                               | Colombia | 1960 | 105,559 | Agricultural Economics |</p>
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<td>Doctoral Fellow</td>
<td>Nigeria</td>
<td>1963</td>
<td>3,700</td>
<td>Anschel, Kurt</td>
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<td>Determinants of Pricing Behavior</td>
<td>Yugoslavia</td>
<td>1964</td>
<td>96</td>
<td>Dirlam, Joel</td>
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<td>Preliminary Observations on Male-Female Role Differentiation in Nigeria: Implications for Economic &amp; Educational Planning</td>
<td>Nigeria</td>
<td>1963</td>
<td>5,053</td>
<td>Eicher, Joanne</td>
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<td>Resource Atlas for Eastern Region, Nigeria</td>
<td>Nigeria</td>
<td>1961</td>
<td>10,397</td>
<td>Floyd, Barry</td>
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<tr>
<td>Industrial Structure in Italy</td>
<td>Italy</td>
<td>1960</td>
<td>1,167</td>
<td>Form, William</td>
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<td>Study of Vietnamese Village Economy</td>
<td>Vietnam</td>
<td>1962</td>
<td>1,200</td>
<td>Hendry, James</td>
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<td>Economic Development in Colombia, 1958-60</td>
<td>Colombia</td>
<td>1962</td>
<td>1,400</td>
<td>Hunter, John</td>
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<td>Doctoral Fellowship Program</td>
<td>Nigeria</td>
<td>1963</td>
<td>22,258</td>
<td>Johnson, Glenn</td>
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<td>Trade Unionism and Industrial Relations in Contemporary India</td>
<td>India</td>
<td>1962</td>
<td>7,365</td>
<td>Kannappan, Subbiah</td>
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<td>Land Reform and Economic Development in Taiwan</td>
<td>Taiwan</td>
<td>1962</td>
<td>17,687</td>
<td>Koo, Anthony</td>
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<td>Analysis of Israel's Technical Assistance Programs</td>
<td>Israel</td>
<td>1961</td>
<td>24,995</td>
<td>Kreinin, Hordechai</td>
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<td>Technical Assistance in Human Resource Development: Israel &amp; the Newly Created States in Africa &amp; Asia</td>
<td>Israel</td>
<td>1964</td>
<td>16,048</td>
<td>Kruger, Daniel</td>
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<td>Africa</td>
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<td>Antitrust Policies of the European Coal &amp; Steel Community: Their Implications for European Economic Integration</td>
<td>Europe</td>
<td>1964</td>
<td>3,550</td>
<td>Lanzillotti, Robert</td>
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<td>Effects of Three Planning Methods on Economic Growth &amp; Development</td>
<td>Switzerland</td>
<td>1964</td>
<td>3,000</td>
<td>Peseck, Boris</td>
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<td>Technological Change in an Industrializing Low-Wage Economy--The Process of Adjustment to Factor Proportions: A Case Study of Mexico</td>
<td>Mexico</td>
<td>1960</td>
<td>13,945</td>
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<td>II. DEVELOPMENT POLITICS AND ADMINISTRATION</td>
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<td>Politics and Administration in South Vietnam</td>
<td>Vietnam</td>
<td>1961</td>
<td>4,741</td>
<td>Finkle, Jason</td>
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<td>Nature of the Japanese Reparations Problem &amp; its Settlement, (a) as it relates to the re-emergence of Japan as a power in East Asia, (b) as it affects and is seen by the five governments directly involved, and (c) in its relation to the foreign policy of the U.S.</td>
<td>Japan</td>
<td>1961</td>
<td>21,720</td>
<td>Fishel, Wesley</td>
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<td>Vietnamese Local Government</td>
<td>Vietnam</td>
<td>1962</td>
<td>12,019</td>
<td>Fox, Guy</td>
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<td>South Asian Experiments in Local Self-Government</td>
<td>South Asia</td>
<td>1961</td>
<td>1,200</td>
<td>Friedman, Harry</td>
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<td>Party Systems in Emerging Nations</td>
<td>Netherlands</td>
<td>1965</td>
<td>4,250</td>
<td>Garfinkel, Herbert</td>
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<td>The Development of Political Orientations Among Panamanian Youth</td>
<td>Panama</td>
<td>1961</td>
<td>11,118</td>
<td>Goldrich, Daniel</td>
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<td>Comparative Analysis of Selected Political Systems</td>
<td>General</td>
<td>1963</td>
<td>2,540</td>
<td>Krislov, Samuel</td>
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<td>Development Administration--Education, Recruitment and Values of Italian Administrators</td>
<td>Italy</td>
<td>1960</td>
<td>14,078</td>
<td>LaPalombara, Joseph</td>
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<td>Public Enterprise and Administrative Reorganization as Phenomena Interacting with Political Development</td>
<td>Vietnam</td>
<td>1961</td>
<td>8,453</td>
<td>Musolf, Lloyd</td>
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<td>Typical Life Cycles and Educational Experiences in European &amp; African Cultures</td>
<td>Europe, Africa</td>
<td>1961</td>
<td>10,040</td>
<td>Pinner, Frank</td>
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<td>Political Development Studies Group</td>
<td>General</td>
<td>1967</td>
<td>9,100</td>
<td>Press, Charles</td>
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<td>Development Administration and Politics in Vietnam</td>
<td>Vietnam</td>
<td>1961</td>
<td>8,796</td>
<td>Scigliano, Robert</td>
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<td>World Politics and International Relations: A Developmental Approach</td>
<td>General</td>
<td>1962</td>
<td>2,963</td>
<td>Smith, Bruce</td>
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<td>Technical Assistance in Public Administration &amp; Development Administration</td>
<td>General</td>
<td>1960</td>
<td>9,591</td>
<td>Weidner, Edward</td>
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<td>III. INTERNATIONAL COMMUNICATIONS</td>
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<td>Understanding &amp; Acceptance of Technical Change in Latin America: Behavioral Factors Related to Comprehension of Linguistic &amp; Non-Linguistic Codes</td>
<td>Latin America</td>
<td>1961</td>
<td>22,290</td>
<td>Bello, David</td>
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<td>An Investigation of Communication Problems Related to Technical Change</td>
<td>Latin America</td>
<td>1961</td>
<td>36,574</td>
<td>Deutschmann, Paul</td>
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<td>Cognitive Organization of Ideas About Occident Among Peoples of the Orient</td>
<td>Asia</td>
<td>1962</td>
<td>750</td>
<td>Jacobson, Eugene</td>
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<td>Ideological Commitment, Self-Identification &amp; Cultural Integration of Americans of Japanese Ancestry in Japan (Tokyo area)</td>
<td>Japan</td>
<td>1963</td>
<td>12,378</td>
<td>Kumata, Hideya</td>
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<td>Cross-Cultural Study of Stereotype Accuracy &amp; Interpersonal Perception</td>
<td>General</td>
<td>1961</td>
<td>6,905</td>
<td>Blair, Lyle</td>
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<td>IV. EDUCATION AND DEVELOPMENT</td>
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<td>A Comparative Study of Australian and American Education</td>
<td>Australia</td>
<td>1961</td>
<td>500</td>
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<td>Analysis of Data on Educational &amp; Occupational Beliefs, Plans &amp; Related Variables on Turrialba, Costa Rica Youth</td>
<td>Costa Rica</td>
<td>1961</td>
<td>5,399</td>
<td>Haller, A.O.</td>
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<td>Analysis of Data on Occupational Beliefs, Aspirations &amp; Evaluations of Okinawan and Japanese Youth</td>
<td>Japan</td>
<td>1961</td>
<td>8,375</td>
<td>Ishino, Iwao</td>
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<td>Completion of Central American Education Research</td>
<td>Guatemala</td>
<td>1964</td>
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<td>Niehoff, Richard</td>
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<td>Value Systems Inherent in African Educational Programs: Tribal-Societal, Moslem, Christian Missionary &amp; Modern Western Oriented</td>
<td>Africa</td>
<td>1961</td>
<td>2,013</td>
<td>Solomon, Marvin</td>
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<td>V. INTERNATIONAL RURAL DEVELOPMENT</td>
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<td>Ethnographic Research on Complex Whole Cultures</td>
<td>Guatemala</td>
<td>1961</td>
<td>8,558</td>
<td>Adams, Richard</td>
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<td>Methods of Appraising Nutritional Standards, Population Pressure &amp; Density</td>
<td>General</td>
<td>1961</td>
<td>68,616</td>
<td>Borgstrom, Georg</td>
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<td>Role of Communities &amp; Their Organizations in the Developing Nations of East Asia</td>
<td>Asia</td>
<td>1962</td>
<td>12,705</td>
<td>Doneghue, John</td>
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<td>A Study of Farm Mechanization in Taiwan</td>
<td>Taiwan</td>
<td>1961</td>
<td>28,089</td>
<td>Farrell, Arthur</td>
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<td>The Taiwanese Rural Village Community &amp; Its Changing Socio-Economic Life</td>
<td>Taiwan</td>
<td>1962</td>
<td>1,575</td>
<td>Gallin, Bernard</td>
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<td>Decision-Making Process &amp; the Diffusion of Social &amp; Technological Innovations in Rice-Producing Villages</td>
<td>Japan</td>
<td>1961</td>
<td>5,568</td>
<td>Ishino, Iwao</td>
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<td>Determination of Nutrient-element Composition of Selected Plants Parts as Related to Environment &amp; the Usefulness of such Values in Diagnosing Fertilizer Needs of Tropical Horticulture Crops for Maximum Quality of Product &amp; Economy of Production</td>
<td>Taiwan</td>
<td>1962</td>
<td>17,412</td>
<td>Kenworthy, A.L.</td>
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<td>Vegetable Seed Multiplication in Colombia</td>
<td>Colombia</td>
<td>1961</td>
<td>1,833</td>
<td>Markarian, Deran</td>
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<td>Nutritional Value &amp; Keeping Quality of Low-cost Diets Designed for Potential use by Post-weaning Age Children in Southeast Asia</td>
<td>Southeast Asia</td>
<td>1961</td>
<td>3,000</td>
<td>Nicholas, R.C.</td>
</tr>
<tr>
<td>Survey of the Wildlife &amp; Potential National Park Resources of Nigeria</td>
<td>Nigeria</td>
<td>1962</td>
<td>6,792</td>
<td>Petrides, George</td>
</tr>
<tr>
<td>Investigation of the Function of Cooperatives in Education-In Rural Development</td>
<td>India, Iran, Israel, Greece, Pakistan, Kenya, &amp; Yugoslevia</td>
<td>1963</td>
<td>527</td>
<td>Ulrey, Orion</td>
</tr>
</tbody>
</table>

VI. INTERNATIONAL BUSINESS MANAGEMENT

Part I: U.S. Enterprise and Management in Brazil

<table>
<thead>
<tr>
<th>Area</th>
<th>Year</th>
<th>Amount</th>
<th>Key MSU Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>1961</td>
<td>5,756</td>
<td>McMillan, Claude</td>
</tr>
<tr>
<td>Title or Subject</td>
<td>Area</td>
<td>Year</td>
<td>Amount</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
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<tr>
<td>VII. ALLOCATIONS FOR GENERAL ACADEMIC PROGRAM AND COURSE DEVELOPMENT</td>
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<tr>
<td>Russian &amp; Eastern European Studies Program</td>
<td>Russia E. Europe</td>
<td>1965</td>
<td>15,300</td>
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<td>Pilot Seminar for professors going overseas</td>
<td>Orientation &amp; Training Seminar</td>
<td>1961</td>
<td>14,362</td>
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<td>Development of library resources in support of area &amp; functional centers</td>
<td>General</td>
<td>1964</td>
<td>74,650</td>
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<td>General support for Humanities Research Center projects</td>
<td>Humanities Research Center</td>
<td>1964</td>
<td>12,426</td>
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<td>Visiting Scholars</td>
<td>Summer Inst. on Asia</td>
<td>1962</td>
<td>3,697</td>
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<td>The History of Foreign Relations</td>
<td>Foreign Relations</td>
<td>1963</td>
<td>597</td>
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<td>African politics course development</td>
<td>Africa</td>
<td>1961</td>
<td>3,520</td>
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<td>African history course development</td>
<td>African Center</td>
<td>1961</td>
<td>3,404</td>
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<td>International Programs Research Office Projects</td>
<td>General</td>
<td>1962</td>
<td>35,143</td>
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<td>Latin American University Exchange Program</td>
<td>Latin America</td>
<td>1963</td>
<td>2,650</td>
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<td>The International Programs of American Universities</td>
<td>American universities</td>
<td>1966</td>
<td>1,000</td>
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<td>General support on the <em>Journal of African Languages</em></td>
<td>Africa</td>
<td>1964</td>
<td>20,000</td>
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<td>Social Science course revision</td>
<td>General</td>
<td>1960</td>
<td>40,262</td>
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<td>Social Change in Latin America: The Roles of Labor &amp; Management</td>
<td>Latin America</td>
<td>1962</td>
<td>5,125</td>
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<td>VIII. COMPARATIVE CROSS-CULTURAL STUDIES</td>
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<tr>
<td>Comparative Analysis of Urbanization of Italy: Pre-1945 &amp; Post-1945 as Resultants</td>
<td>Italy</td>
<td>1964</td>
<td>1,500</td>
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<td>of Contrasting Political, Economic, Social &amp; Cultural Forces</td>
<td></td>
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<td>The Cross-Cultural Influences of the Russian Orthodox Church</td>
<td>U.S.S.R.</td>
<td>1965</td>
<td>1,000</td>
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<td>A Cross-Cultural Comparative Analysis of the Function &amp; Meaning of Work</td>
<td>Guatemala</td>
<td>1963</td>
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<td>Associational Involvement of Lower Income Families in Kingston, Jamaica</td>
<td>Jamaica</td>
<td>1962</td>
<td>3,363</td>
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<td>Cross-Cultural Survey of Adolescent Society</td>
<td>S. America,</td>
<td>1962</td>
<td>15,531</td>
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<td>Asia, Africa, &amp; Europe</td>
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<td>Analysis &amp; Appraisal of the Fulbright &amp; Smith-Hundt Programs</td>
<td>General</td>
<td>1961</td>
<td>11,800</td>
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<td>An Evaluation of Systems of Community Development in Greenland</td>
<td>Greenland</td>
<td>1964</td>
<td>3,378</td>
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<td>Decision-Making in Cross-Cultural Family Settings: Nigeria</td>
<td>Nigeria</td>
<td>1962</td>
<td>1,000</td>
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<td>Differences in Modal Personalities of Young Adults as a Function of Different</td>
<td>Israel</td>
<td>1961</td>
<td>9,000</td>
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<td>Family Structure</td>
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<tr>
<td>Title or Subject</td>
<td>Area</td>
<td>Year</td>
<td>Amount</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
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<td>Research on the Organization of Beliefs, Attitudes &amp; Values in Poland</td>
<td>Poland</td>
<td>1964</td>
<td>1,420</td>
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<td>Summer Seminar on the Methodology on the Comparative Cross-Cultural Research</td>
<td>Cross-Cultural</td>
<td>1967</td>
<td>2,000</td>
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<td>Americans in India</td>
<td>India</td>
<td>1961</td>
<td>10,336</td>
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<tr>
<td>Americans in India</td>
<td>India</td>
<td>1964</td>
<td>2,992</td>
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</table>
FOREIGN CURRICULUM CONSULTANT GRANT

Donor: Fulbright-Hays Program
Contract No.: Not available
Account No.: 71-0109
Location: MSU Campus
Duration: September 1981-July 1982
Budget: $12,423

Key MSU Faculty: Marylee Crofts (African Studies Center)

Project Goals: To work with the African Outreach Director in evaluating, developing, and utilizing materials on Africa; to upgrade teachers' (at all levels) knowledge of African countries and sensitivities to priorities in teaching about Africa; to produce critical bibliographies of recommended materials.

Project Plans/Objectives: The specific tasks of the curriculum consultant are:
1. To review and evaluate published materials on Africa.
2. To consult with librarians concerning acquisitions and weeding.
3. To present new ideas and model lessons at professional meetings, workshops, and conferences.
4. To participate in the Global Education projects of the Michigan Department of Education.
5. To staff, with others, in-service and preservice courses for teachers.
6. To visit community organizations and institutions.
7. To develop new materials for teaching about Africa K-12.
8. To visit classrooms in schools where African studies are taught and where teachers are willing to participate in a curriculum workshop.
9. To participate in College of Education and Evening College colloquia and seminars relating to international issues.
10. To consult with the MSU foreign language self-instruction program.

Location of Documentation: Project proposals for several years' support are located in the African Studies Center. Further information is available from Marylee Crofts, Outreach Director, African Studies Center, 100 Center for International Programs.

Project Summary Comment: Although this project addresses the 1981-82 funding year, the Foreign Curriculum Consultant grant has been obtained for several years, with each year supporting a foreign student/scholar from a different country. The 1981-82 grant supported a Ph.D. student in education from South Africa. Other years are as follows: 1977-78, Nigeria; 1978-79, Ghana; 1979-80, Ghana; 1980-81, Tanzania; and the 1985-86 grant period (still under discussion) will support a consultant from Senegal. Two publications have been generated by the consultants: "African Literature in the Social Studies Curriculum" in The Link published by the Social Science Educational Consortium, Inc., written by Cecelia Dumor (consultant from Ghana 1978-1980); and "African Studies Curriculum--South Africa" in publication process by the African Studies Center, written by Zach Chuyenane (consultant from South Africa 1981-82). Copies of these publications are available from the Educational Resource Center, African Studies Center, 100 Center for International Programs.
GRADUATE EDUCATION OVERSEAS

Contract No.: Varies annually
Account No.: Varies annually
Location: Austria, Germany, The Netherlands, Belgium, England, Spain, Liberia
          Hawaii, Colombia, Mexico, Panama, Guatemala, Puerto Rico, Egypt,
          Turkey, Japan, Okinawa, Korea, The Philippines, Taiwan, Hong Kong,
          Indonesia, Singapore, Thailand, Malaysia
Duration: September 1969-ongoing
Budget: Approximately $400,000 per year

Key MSU Faculty: S. Cherney, Director (Lifelong Education)

Project Goals: To provide the opportunity to Americans and other interested participants to earn a master's degree in curriculum and teaching and in community services (through MSU's School of Human Ecology) at American, International, and Department of Defense Dependents schools in several international locations.

Project Plans/Objectives:
1. To transmit the latest research findings in teaching, emphasizing current trends and practices in the U.S.
2. To enhance staff development through master's and specialist degrees obtained at participating institutions.
3. To provide up-to-date courses in computer applications in education, management of classroom behavior, teaching the gifted, cross-cultural education, and curriculum development.
4. To provide year-long and summer faculty to participating institutions to teach, consult, and act as classroom observers.
5. To provide in-service training to participating institutions.


Location of Documentation: Various reports on the earlier years of this program are located in University Archives and Special Collections, Main Library, under the collections catalogued for the Institute of International Studies in Education. More detailed and up-to-date information can be obtained from S. Cherney, Lifelong Education, 8 Kellogg Center.

Project Summary Comment: This program is specifically designed to respond to the staff development needs of overseas schools. Regular MSU faculty members travel to overseas schools for a mutually determined time period during which they teach requested courses. Classroom visitations and other in-service training activities are an integral part of each GEO assignment. The master's degree in curriculum and instruction can be completed, with summer study, in two years. Independent study and lab/field course options are available for educators to concentrate on problems unique to overseas schools.
Donor: Fulbright-Hays Training Grants
Contract No.: 84.021 (Catalog of Federal Domestic Assistance Number)
Account No.: Not available
Location: Tanzania (1979), Zimbabwe (1982)
Duration: September 1978-August 1979; September 1981-August 1982
Budget: 1979-$45,000; 1982-$60,000

Key MSU Faculty: Marylee Crofts, Outreach Director (African Studies Center)

Project Goals: To afford educators from Michigan (Tanzania) and Detroit Public Schools (Zimbabwe) an opportunity to visit Africa for the purpose of establishing contacts with teachers in Africa and to develop teaching materials and disseminate the results of the study tour throughout Michigan and the Detroit Public School system.

Project Plans/Objectives: Under the general guidelines for global education established by the Michigan State Department of Education, the following objectives were set forth:

1. To present participants with a view of the world as an interdependent system—politically, economically, culturally, and ecologically. Objectives to accomplish were a) to develop curriculum materials that demonstrate the linkages between the U.S. and Tanzania/Zimbabwe, b) to develop curriculum lessons that illustrate the economic and political importance of Tanzania and Zimbabwe to the U.S., and c) to prepare lessons to show the similar ecological problems of industrial development.

2. To help teachers identify those areas in school curriculum where a global perspective is applicable and may be infused. Objectives were a) to develop lessons and/or materials in Language Arts, Fine Arts, and Social Studies that deal with the knowledge and understanding of Tanzania and Zimbabwe attained by the participants which reflect specific outcomes of the study tour, b) to implement lessons into their course of study in the ensuing academic year, and c) to become resource consultants to the Federal Teacher Center and for Zimbabwe to the State funded Detroit Center for Professional Growth and Development to provide in-service training for local school staffs.

3. To help teachers and students alike to identify linkages in their own cultural heritage. Objectives included: a) to establish and maintain contacts with a variety of Tanzanians and Zimbabweans for the purpose of cross-cultural exchanges, b) to identify sources of language, mores, art, music, and dance that constitute some of the practices in the U.S. today, and c) to identify students in Michigan, Tanzania, and Zimbabwe to initiate direct contact among the students.

Cooperating Institutions: The selection of teacher applicants from all over Michigan, pre-departure training, and post-visit follow-up for the Tanzania study tour were managed by Marylee Crofts, Outreach Director, African Studies Center. This process for the Zimbabwe study tour was coordinated with Wayne State University, with whom MSU shared the grant.
Location of Documentation: Project documents on both study tours are located in the African Studies Center, 100 Center for International Programs. Further information can be obtained from Marylee Crofts, Outreach Coordinator, African Studies Center, 100 Center for International Programs.

Project Summary Comment: A project outcome from the Tanzania study tour is a publication of the African Studies Center written by a participant, Carol Bacak, entitled *African Studies Curriculum: Tanzania*. Copies are available from the African Studies Center, 100 Center for International Programs.
GUATEMALA EDUCATION--PROGRAMA INTERUNIVERSITARIO

Donor: Agency for International Development
Contract No.: PIO/T 899-E-66-AB-3-29039
Account No.: Not available
Location: Guatemala (with activities in Costa Rica, Honduras, Nicaragua, El Salvador)
Duration: June 1962-September 1964
Budget: Not available

Key MSU Faculty: R.O. Niehoff, Campus Coordinator (Education); K. T. Hereford, Project Leader (Education)

Project Goals: To establish in Central America a regional program of educational research and planning assistance services to serve the national autonomous universities and government educational ministries of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua.

Project Plans/Objectives:
1. To conduct regional studies of vocational education, homemaking education, secondary teacher preparation, and agricultural education programs as well as of secondary school teachers.
2. To conduct a study of 35 special education and rehabilitation agencies in Guatemala.
3. To survey students, professors, and directors of normal and college preparatory secondary schools in Guatemala, Costa Rica, Honduras, and Nicaragua.
4. To conduct a study of the University of San Carlos of Guatemala and of the University of Honduras.
5. To conduct studies on the University of Costa Rica, the escuela normal superior in Honduras and El Salvador, secondary schools in El Salvador, regional offices of ministries of education, regional consideration of special education, and rehabilitation agencies, regional survey of university student drop outs, and a regional consideration of test development and academic testing programs.
6. To develop a university self-study at the University of San Carlos.
7. To develop a plan for self study at and by the University of Costa Rica.
8. To plan a new "basic college" within the University of San Carlos.
9. To assist the Ministry of Education in formulating a national plan for education in Guatemala.
10. To establish a data processing operation.
11. To establish a research materials center.
12. To conduct a formal seminar in educational research.
13. To develop a set of working papers.

Cooperating Institutions: University of San Carlos, Guatemala

Location of Documentation: Progress and final reports are located in University Archives and Special Collections, Main Library.
Project Summary Comment: The Programa Interuniversitario was carried out by the Institute for Educational Research and Improvement (IIME), a non-governmental, interuniversity enterprise co-founded in 1961 and co-governed by the University of San Carlos of Guatemala and MSU. During the two-year contract period several results were obtained: 1) IIME was formally established as a unit administratively responsible to the office of the Rector of the University of San Carlos; 2) IIME's Interuniversity Governing Board established the broad policies of the Programa and administered it; 3) 24 basic studies in the fields of higher, secondary, technical, teacher, and special education and rehabilitation were conducted in the five Central American republics that constitute IIME's service area; 4) approximately 120 working papers were produced from these studies, 23 of which were published during the contract period (a list of which may be found in the Archives); 5) nine independent but related studies were conducted as part of IIME's mission to foster educational research in Central America; 6) doctoral dissertation and thesis research was conducted; 7) research assistants and associates were trained; 8) planning assistance was rendered; 9) IIME provided advisory assistance to several local and international agencies; 10) a professional materials center was established as well as a small data processing center; and 11) several regional conferences were conducted.
GUATEMALAN SMALL FARMER DIVERSIFICATION:
PRE-PROJECT DESIGN

Donor: Agency for International Development/Guatemala Mission
Contract No.: AID/520-0000.1
Account No.: 71-1992; 71-2044
Location: Guatemala
Duration: July 1979-December 1980
Budget: $65,000

Key MSU Faculty: K. Wilson (Institute of International Agriculture); R. Deans (Animal Science); F. Dennis and J. Kelly (Horticulture); L. Kyle (Agricultural Economics)

Project Goals: To develop a plan to assist small farmers diversify their agricultural production.

Location of Documentation: The plan and project correspondence are available from Kim Wilson, Institute of International Agriculture.

Project Summary Comment: Requested by the AID Mission in Guatemala, MSU faculty wrote a pre-project design that would assist small farmers in their ability to diversify the crops they grow. Because of political turmoil in Guatemala, the project did not go beyond the design stage.
4-H RURAL DEVELOPMENT PROGRAMS

Donor: Michigan Partners of the Americas, Peace Corps/Belize and Dominican Republic, Michigan 4-H Foundations
Contract No.: Not available
Account No.: 31-1260
Location: Dominican Republic, Belize
Duration: 1968-Ongoing
Budget: $250,000 to date

Key MSU Faculty: Norman Brown (4-H Office); Frank Medaski (Partners of the Americas); John Aylsworth (4-H Office)

Project Goals: To provide four short-term exchanges of 4-H participants between Belize and the Dominican Republic, and Michigan.

Cooperating Institutions: Michigan Partners of the Americas, Michigan 4-H Foundations, Peace Corps/Belize and Dominican Republic

Location of Documentation: Information on 4-H exchanges can be obtained from the 4-H Office, 6H Berkey Hall.

Project Summary Comments: The exchange programs that occur between Michigan 4-H groups and those in the Dominican Republic and Belize are funded on the basis of groups showing interest. Michigan Partners works in cooperation with 4-H groups in order to provide funding and to assist in structuring the type of rural development experience both organizations seek to enhance.
IMPROVING THE QUALITY OF AFRICAN AUDIO-VISUAL MATERIAL IN K-12 AND UNIVERSITY COURSES: AN OUTREACH PROJECT

Donor: U.S. Office of Education (Title VI), NEH
Contract No.: CFDA No. 13-436
Account No.: Not available
Location: MSU Campus
Duration: September 1978-June 1981
Budget: $68,256

Key MSU Faculty: David Wiley, Director (African Studies Center)

Project Goal: To create a unique qualitative reference guide to audio-visual materials about Africa available in the U.S. for K-12 and university teachers and students.

Project Plans/Objectives:
1. To develop the infrastructure for the African Media Center (AMC).
2. To establish a basic data base filing system for each Africa A-V item in circulation (including an extensive national search to identify all A-V materials).
3. To establish an advisory committee for the AMC with representatives of the various A-V, television, film, and Africanist faculties and staff at MSU.
4. To develop procedures and instruments of evaluation for all A-V materials.
5. To review all A-V materials in circulation including films and videotapes, filmstrips, overhead transparencies, and slide-sets.
6. To provide quality control of the reviews through the circulation of final draft reviews.
7. To sponsor a national conference on "Images of Africa" in May 1979 to evaluate the work of AMC.
8. To develop major lacunae in the A-V materials about Africa for which new films and videotapes are needed for instruction in the African humanities.
9. To provide extensive information services for university professors, administrators, and school teachers, as well as for some film producers and distributors.
10. To complete an annotated bibliography of articles relating to African and Africanist Cinema.

Location of Project Documentation: All relevant materials are located in the African Studies Center, 100 Center for International Programs.

Project Summary Comment: The reference guide, referred to in the Project Goal above, was published by the African Studies Center under the title Africa on Film and Videotape, written, compiled, and edited by D. Wiley with R. Cancel, D. Pflugard, T.H. Elkiss and Amie Campbell, 1982. Copies of this publication are available from the African Studies Center, 100 Center for International Programs.
Donor: Agency for International Development
Contract No.: Not available
Account: 71-2022
Location: India
Duration: 1961-1964
Budget: Not available

Key MSU Faculty: Leo Nothstine, Director (Civil Engineering); Robert Soutas-Little (Biomechanics); Ian Ebert (Electrical Engineering); C. Cooper (Chemical Engineering)

Project Goals: To assist in the development of the engineering institutes at Poona and at the Guindy College of Engineering at the University of Madras.

Location of Documentation: Information on this project can be obtained from R. Soutas-Little, Biomechanics, A439 East Fee Hall.
INDONESIA NON-FORMAL EDUCATION

DEVELOPMENT OF A REPLICABLE INDONESIAN
COMMUNITY LEARNING SYSTEM MODEL

Donor: Agency for International Development and Government of Indonesia
Contract No.: AID/Asia-C-1150
Account No.: 71-2012
Location: Indonesia
Duration: June 1975-December 1978
Budget: $750,000 (AID); $305,000 (Government of Indonesia)

Key MSU Faculty: S. Joe Levine (Educational Administration)

Project Goals: To bring to bear binational expertise on the development of community-level models for effective delivery of a wide range of educational services. The particular sectors of human resource needs to which the model is to relate are the following: a) school-aged children who do not have the opportunity to enter any kind of formal school program; b) those youth who have already terminated at some level of formal education but still need additional knowledge and/or skills in order to function more productively in the nation's development; and c) those adults who need additional knowledge, skills, and attitudes requisite to improving the general quality of their lives as well as contributing to the nation's development.

Project Plans/Objectives: In order to create the model outlined in the goals of the project, the operating plan included:
1. To develop the needed relationship among the participating groups, including a) the determination of the potentialities for inputs to the project and b) determining the coordination, advisory, and management responsibilities.
2. To design the model or models, including a) development of objectives and evaluative criteria and b) providing for the needed inputs and management.
3. To operate the program, including a) establishing an evaluation procedure and b) refining and redeveloping the program.
4. To evaluate and disseminate the outcomes, including a) producing cost-benefit statements, b) assessing the in-country feasibility of replication, c) assessing the other-country feasibility of replication, keyed to descriptions of necessary conditions and indicators of need, d) publication and distribution of descriptions and reports, and e) advisement on next steps for non-formal education program development within Indonesia.

The applied research, experimental design, and evaluation of this project encompassed the following tasks:
1. To conduct village level needs assessment, or problem identification studies.
2. To conduct baseline surveys measuring key development indicators, e.g., literacy rates, income distribution, etc.
3. To generate an experimental design of the community learning system model, inclusive of control and experimental villages.
4. To generate an experimental design for specific intervention strategies, especially during pilot testing stages (new materials and methodologies).
5. To produce on-going case study documentation of the project in process.
6. To design pre-post and ex-post facto evaluative measures of project impact on specific target outputs.

Cooperating Institutions: Ministry of Education and Culture, Teacher Training Institutes at Ujung Pandan, Ministry of the Interior, appropriate agencies of community and humanitarian services, and newly-developed regional and national mass media organizations in Indonesia

Location of Documentation: "Nonformal Education Project in Indonesia: Selected Project Papers" written by S. Joe Levine in August 1979, is available from the author, 421 Erickson.

Project Summary Comment: This project was sponsored by the Institute for International Studies in Education and aimed to seek benefits for the rural poor by helping to develop strategies for community development through designing a non-formal education delivery system in Indonesia. The approach used to design and operationalize a community learning system model was both empirical and experiential.
INDONESIAN HIGHER AGRICULTURAL EDUCATION IMPROVEMENT

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development

Contract No.: AID/ea-95; AID/ea-176 with MUCIA, with the University of Wisconsin as Lead Institution

Account No.: 71-3427

Location: Indonesia


Budget: $12,245,621 (MUCIA); $295,440 (MSU share)

Key MSU Faculty: Kirkpatrick Lawton, Coordinator (Crop & Soil Science); M. Esmay (Agricultural Engineering); T. Hedrick (Food Science); E. Martin (Entomology); F. Bobbitt (Agricultural Education); C. McNabb and P. Tack (Fisheries & Wildlife); H. Bittenbender (Horticulture); I. Wyeth (Institute of International Agriculture); C. Minkel (International Studies & Programs); H. Whittier (Anthropology); L. Witt (Agricultural Economics); L. Robertson (Soils Extension); W. Drew (Ecology); S. Imamura (English as a Second Language); B. Stout (Power Machinery); C. Meadows (Dairy Cattle Management); W. Hooker (Plant Pathology)

Project Goals: To help Indonesia strengthen its higher education program in agriculture through activities at the Institute of Pertanian Bogor (IPB) and Gadjah Mada University (GMU) in Yogyakarta which, in turn, will assist in the development of outlying agricultural faculties throughout Indonesia; to maximize application of the existing philosophy of service to the rural community through direct community action projects; to further develop adaptive research, provision of key technical services and training of agriculturalists to serve agricultural development in Indonesia.

Project Plans/Objectives:
1. To conduct a survey on agricultural higher education.
2. To develop a four-year undergraduate curriculum.
3. To upgrade the university administrative organization.
4. To help develop effective community service programs.
5. To develop practical agricultural research programs.
6. To offer U.S. expertise through long- and short-term consultants.
7. To support the program with necessary research, laboratory, and library materials.

Cooperating Institutions: IPB, GMU and other institutions through the Indonesian Agricultural Consortium; MUCIA members, especially University of Wisconsin as lead institution

Location of Documentation: Contracts, reports, and budget information are currently located in the Office of the Dean of International Studies and Programs, 209 Center for International Programs, but will be moved in the near future to University Archives and Special Collections, Main Library. Annual MUCIA Treasurer's Reports that present financial information are available through the Dean's Office or through G. Jacobs, Contracts and Grants.

Project Summary Comment: A major institution building experience involving MSU is the 13-year AID financed project in support of Indonesian higher agricultural education. The project represented a major collaborative effort with Indonesian
colleagues to upgrade faculty and staff and to develop curricula at Gadjah Mada University and at IBP. A significant feature of the project was the training of 250 faculty representing these two universities at MUCIA institutions. Most of these pursued graduate degree studies in a wide variety of agricultural and veterinary sciences. Eight participant trainees received intensive training at MSU's Colleges of Agricultural and Natural Resources, Natural Science, and Veterinary Medicine. MUCIA advisors were intimately involved in curriculum advisement, teaching, research development, improvement of laboratory facilities, day-to-day staff development, and other educational programs to help the Government of Indonesia achieve long-term developmental goals.

MSU faculty participation as consultants to this project wrote end-of-tour reports, all of which are currently located in 209 Center for International Programs.

When AID terminated funding for this program, the International Bank for Reconstruction and Development (World Bank) entered into a Contract for Technical Assistance and Fellowship Programs between the Direktorat Jenderal Pendidikan Tinggi and MUCIA to further develop teaching and research programs in areas of higher education in Indonesia, including agriculture. MSU faculty are continuing to participate in this project.
INDONESIAN HIGHER EDUCATION

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from a World Bank loan to the Government of Indonesia

Contract No.: IXth Education Project No. 1904/IND (World Bank Contract) Sub-contract to University of Wisconsin

Account No.: 71-4217; 71-4215; 71-4206

Location: Indonesia

Duration: May 1983-February 1987

Budget: $19,576,610 (MUCIA); $170,137 (MSU share to date)

Key MSU Faculty: J. Asher (Zoology); J. Lubkin (Civil & Sanitary Engineering); C. McNabb (Fisheries & Wildlife); C. Tsai (Mathematics)

Project Goals: To extend support to staff of specified Indonesian Universities while they take advanced training in MUCIA member universities in other U.S. institutions or in institutions of higher learning in third countries; to provide technical services to the University of Indonesia, Gadjah Mada University, and Andalas University; to create capabilities within the offices of the Directorate General of Higher Education to manage fellowship and technical assistance programs such that the DGHE task force becomes the nucleus for a similar national program.

Project Plans/Objectives:
1. To provide graduate fellowships for study leading to the degree level of master's, doctorate, or the equivalent over the term of the contract.
2. To provide long- and short-term technical assistance to teach courses within the project universities, to provide specialized inputs to the project universities and the Directorate General, as needed, to teach office procedures for fellowship and technical assistance management, and to assist in the conduct of evaluation.

Cooperating Institutions: MUCIA, especially University of Wisconsin as lead institution; University of Indonesia and its campuses

Location of Documentation: World Bank/MUCIA agreement and consultancy sub-agreements are located in the Office of the Dean of International Studies and Programs, 209 Center for International Programs.

Project Summary Comment: This World Bank contract is a further extension of the Bank's activities in Indonesia under previous funding arrangements. For MUCIA, the project is an extension of a 13-year history of higher educational development. Under the terms of the current agreement, however, needs beyond those in agricultural education are being addressed. MSU continues to participate in this institution building project by supplying long- and short-term faculty members to meet the goals and objectives of the contract.
INSTITUTIONALIZATION OF THE FACULTAD DE AGRONOMIA AT BALCARCE, ARGENTINA

Donor: Inter-University Research Program, University of Pittsburgh
Contract No.: Not available
Account No.: Not available
Location: Argentina
Duration: 1967-1969
Budget: $15,360

Key MSU Faculty: Merle Esmay (Agricultural Engineering)

Project Goals: To conduct a study of the institutionalization process of the cooperating teaching, research, and extension organizations involved in the development of the Facultad de Agronomía at Balcarce, Argentina.

Cooperating Institutions: University of Pittsburgh, College of Agriculture in Balcarce, Argentina

Location of Documentation: Further information about the study can be obtained from M. Esmay (Agricultural Engineering); other documentation on the Balcarce project is located in University Archives and Special Collections, Main Library.

Project Summary Comment: Funding for this study allowed the principal investigator to visit the Balcarce Facultad three times and to produce the publication Institutionalization of the Facultad de Agronomía at Balcarce, Argentina, Research Report No. 8, Institute of International Agriculture, MSU, 1971. Copies are available through the Institute of International Agriculture, 118 Agriculture Hall.
INTEGRATED AGRICULTURAL PRODUCTION AND MARKETING

Donor: Kansas State University with funds from the Agency for International Development

Contract No.: KSU-492-0302-1-01 (AID Contract No.: AID/DLL/P 2209)
Account No.: 71-3834
Location: Philippines
Duration: March 1979-March 1981
Budget: $123,029 (MSU share)

Key MSU Faculty: Warren Vincent (Agricultural Economics)

Project Goals: To modify present farming systems with alternative enterprises with profit potential for the farmers; to improve handling and processing of agricultural products; to improve the marketing system; and to produce quality products for local consumption as well as for export in order to increase the income of small farmers. Included in these goals are specific subpurposes: a) to strengthen technical capability to develop rational national policies for food systems; b) to further develop institutional capacity to develop integrated packages of production, processing, and marketing technology; and c) to systematically extend new technological packages to small rural entrepreneurs.

Project Plans/Objectives: The project had four major thrusts, each with its own objectives:

1. Academic--To assist the University of the Philippines, Los Banos and the Central Luzon State University to enhance their institutional capabilities to develop specialists in agriculture and food systems who will serve government agencies, agricultural education institutions, small farmer cooperatives, and agribusiness enterprises.

2. National Policy--To enhance the capability of the Ministry of Agriculture to determine and evaluate alternative sets of national policies affecting the production, processing, storage, distribution, and marketing of priority food crops, livestock/poultry, and fisheries products, including a) enhancement of communications and linkages between analysts and decision-makers, b) improvement of the agricultural data system, c) enhancement of computer capacity/capability, d) development and utilization of agricultural subsector models, and e) enhancement of the technical skills of the Philippine policy analysts supplemented by on-call specialists.

3. Extension/Outreach--To improve existing extension/outreach programs in order to provide better services to cooperative and marketing agencies/projects, other agribusiness enterprises, and small farm producers, including a) Extension Delivery System to provide production technology, marketing intelligence, and credit planning for small farmers, b) programs to strengthen the position of small farmers in the Philippine food system through the development of integrated cooperative marketing systems, c) agribusiness development in the context of total food systems, and d) development of an effective Management Information System and capability for effective agricultural program evaluation with the National Food and Agriculture Council.

4. Technological Package--To extend modern alternative packages of production to the small farmer which will optimize output and income while reducing the perceived risk to the farmer and his family to acceptable levels, and to develop an economic processing, marketing, and distribution system to service this pro-
duction effort, including a) the development and testing of technological packages to be integrated with the production and marketing systems of small farmers in the target population, b) provision for training in production, post-harvest technology, by-product utilization, processing, marketing, and extension education, and c) the construction and operation of a Food/Feed Grain Processing Center and a Training, Trade and Marketing Assistance Center.

Cooperating Institutions: Kansas State University (lead institution); Ministry of Agriculture, Central Luzon State University, International Rice Research Institute, National Economic and Development Authority, Philippine Council for Agriculture and Resources Research, University of the Philippines at Los Banos -

Location of Documentation: Reports and original project paper are available from W. Vincent (Agricultural Economics).

Project Summary Comment: The major question that led to the development of this project was how to expand present marketing facilities (including drying and storing facilities) to meet the production levels of the small farmer. The project was a five year undertaking (1978-1983) between the Government of the Republic of the Philippines and the U.S. Government to help the small farmer improve his farming business within his resource endowments and needs. Activities included the provision of experts in crops, animal husbandry, fish, agricultural engineering, agricultural economics, grain science and other support sciences (library, extension, etc.) as needed. Assistance was also provided in the screening and selection of qualified local candidates from cooperating agencies and institutions for degree and/or non-degree participant training abroad. Technical assistance was also provided to help in developing an undergraduate curriculum in food systems at the Central Luzon State University, and a graduate curriculum in marketing at the University of the Philippines at Los Banos.
INTEGRATED RURAL DEVELOPMENT
(EASTERN ORD, UPPER VOLTA--BURKINA FASO)

Donor: Agency for International Development
Contract No.: AID/afr-C-1314
Account No.: 71-2027
Location: Upper Volta (Burkina Faso)
Duration: May 1977-December 1981
Budget: $1,814,281

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Wilcock, Team Leader (Agricultural Economics); J. Bingen, P. Matlon, T. Zalla, and T. Stickley (Agricultural Economics); V. Barrett (Livestock & Range Management); G. Lassiter (Economics); A. Mehretu (Geography).

Project Goal: To assist in the Eastern Regional Development Organization (ORD) in Upper Volta to increase agricultural production and to assist in improving the capacity of the ORD to deliver a broad range of services required to increase production as well as to improve the quality of life in the region.

Project Plans/Objectives: By providing advisory services, specialists performed a number of activities:

1. **Agricultural Economics (Farm Management) Specialist**—conduct studies on the costs and returns of current production practices and alternative technical packages in the four sectors of the ORD; develop methodology for a permanent "minimum necessary" information/data gathering system; advise, assist, and coordinate the economics aspects of varietal field trials and demonstrations; prepare recommendations and proposals for other ORD offices; assist in determining possibilities for the local production of the inputs to a more complex production technology.

2. **Agriculture Marketing Specialist**—conduct applied research on traditional and modernizing marketing practices; advise ORD on the provision of inputs to farmers and the marketing of cash and staple food crop farm output; devise and establish market information and statistics collection systems including training Voltaic personnel; contribute to design and location planning for improvements in road transportation and farm market centers, storage, handling, and processing facilities for crops and livestock production.

3. **Credit and Cooperative Specialist**—assist in the functional implementation of a medium term credit program; determine appropriate local organization for credit, savings, and cooperative-type functions; assist in the creation of mechanisms that will encourage membership and participation in groupements communitaires; study and analyze informal credit systems to determine whether or how non-institutional credit can be made to better serve needs of small farmers; assist in determining qualifications and manpower needs for ORD credit program.

4. **Livestock and Range Management Specialist**—assist in strengthening the existing animal health services to ensure the timely distribution of needed veterinary supplies by assistance in the design of practical improvements in animal health practices; acquire an understanding of the current practices and economics of livestock management in the ORD in order to devise a package of practices.
to prevent disease, improve herd efficiency, reduce young animal mortality, and to recommend supplemental feed; establish recommended range and forage practices; assist in establishing and maintaining ORD livestock records system; train ORD staff.

Cooperating Institutions: ORD personnel

Location of Documentation: Project proposal, budget, and reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: In the Eastern Regional Development Organization, MSU provided technical assistance and training opportunities to increase agricultural production and to improve ORD's capacity to deliver a broad range of services required to increase production.
INTERNATIONAL BUSINESS DEVELOPMENT

Donor: U.S. Department of Education
Contract No.: G008440222
Account No.: 71-0253
Location: MSU campus (with attention to Cameroon, Ivory Coast, Nigeria, Kenya, Zimbabwe, and the Caribbean)
Duration: October 1984-September 1985 (re-bid pending)
Budget: $55,000

Key MSU Faculty: David Wiley and Zinta Konrad (African Studies Center); R. Savitt (Marketing & Transportation)

Project Goals: To utilize the resources of MSU to assist Michigan's private sector in its efforts to develop international markets and to strengthen Michigan's position in international trade.

Project Plans/Objectives:
1. To understand the process of business development in Africa and other developing areas.
2. To analyze the business development process through an interdisciplinary approach to market research, incorporating political, social, cultural, and linguistic phenomena in addition to purely economic data.
3. To address the needs of both small and medium sized Michigan firms as well as larger corporations.
4. To make available to Michigan's private sector the expertise of MSU in African Studies and the research capabilities in economic development and international marketing not available elsewhere in Michigan.

Cooperating Institutions: Michigan Department of Commerce; Snell Environmental Group; Dykema, Gossett, Spencer, Goodnow, and Trigg Law Firm; Capital City Airport Authority; Lansing Regional Chamber of Commerce.

Location of Documentation: Information on this project can be obtained from Z. Konrad (African Studies Center).

Project Summary Comment: The project seeks to meet the information needs of the private sector regarding international markets and to identify new opportunities for Michigan firms. This will be done through an extensive research program concentrating on identification of 1) products African and Caribbean countries import from areas outside the U.S., from the U.S., and from Michigan in particular; 2) the products and services coming from the U.S. that could be supplied by Michigan companies to African and Caribbean markets; and 3) the major channels of distribution in trade with Africa and the Caribbean, the margins, and the landed costs. Other activities supporting the research effort include enhancement of the international business curriculum, an internship program, and public information programs. A cooperative venture between the African Studies Center and the Department of Marketing and Transportation Administration in the Graduate School of Business Administration, the project will draw upon the expertise of both units on the MSU campus.
IRAN FILM SERIES (NIRT)

Donor: National Iranian Radio & Television
Contract No.: Not available
Account No: 71-2620, 71-3354, 71-2198
Location: Iran
Duration: March 1975-March 1977
Budget: $469,508

Key MSU Faculty: M. Issari (Instructional Media Center/Telecommunications)

Project Goals: To produce a series of instructional films that would accurately document the history and culture of Iran as a major component of a complete instructional package to be utilized by educators in American colleges, universities, and secondary schools.

Project Plans/Objectives:
1. To identify courses being taught in Iran at various U.S. universities and available visual material for these courses.
2. To design, in consultation with NIRT officials, nine films to be produced.
3. To conduct a symposium at MSU on the finalization of the design of the films.
4. To photograph, with Iranian staff, the films.
5. To conduct all post-production activities at MSU.

Cooperating Institutions: NIRT, Ministry of Culture of Art, Tehran University; University of Pennsylvania, New York Metropolitan Museum.

Location of Documentation: Information on this project can be obtained from the Department of Telecommunications, 409 Communication Arts or from University Archives and Special Collections, Main Library.

Project Summary Comment: This was the first instructional film series on Iran to be produced with specific educational objectives and audiences in mind.
LATIN AMERICAN AGRICULTURAL SECTOR ANALYSIS
(PLANNING AND POLICY ANALYSIS NETWORK)

Donor: Agency for International Development
Contract No.: AID/ta-CA-1
Account No.: 71-2013
Location: Costa Rica and 22 other Latin American and Caribbean countries
Duration: July 1977-June 1980
Budget: $100,171

Key MSU Faculty: Harold Riley and Darrell Fienup (Agricultural Economics)

Project Goals: To improve and build institutional capabilities for agricultural and rural sector planning and policy analysis in Latin American and Caribbean countries; to facilitate implementation of agricultural and rural sector planning and policy analysis in the appropriate ministries and planning institutions of AID and the Inter-American Institute of Agricultural Sciences (IICA) target countries.

Project Plans/Objectives:
1. To obtain benchmark data for determining present capacities in performing sector analysis and planning activities and in implementing public sector strategies for agricultural development.
2. To develop procedures for increasing the capacities of countries to do their own agricultural sector analysis and planning work, including workshops, seminars, training courses, developing training materials, and backstopping countries for specific activities in sector planning and policy analysis.

These plans and objectives were carried out in two phases. Plans/Objectives of each of the phases include:

Phase One (approximately 24 months)
1. To assist IICA in the development of questionnaires for a general survey and an in-depth survey of planning and related institutions in member countries.
2. To participate in a workshop with IICA, and other Cooperator, TA/AGR, LA/DR and selected country personnel to develop a detailed plan of work for the second phase, and to finalize the survey questionnaires.
3. To assist in the general survey in member countries.
4. To assist in the in-depth survey in four to six selected countries.
5. To assist in the analysis of data from surveys for purposes of determining training and technical assistance needs.
6. To participate in a seminar in Latin America to review results of surveys.
7. To assist in the design of training materials and in the planning of training courses and additional seminars and workshops.

Phase Two (approximately 12 months)
1. To provide in-depth assistance to one or more countries undertaking specific sector planning and policy analysis activities.
2. To provide short-term assistance to other countries on a request basis.
3. To coordinate and manage the Latin American and Caribbean agricultural and rural sector planning and policy analysis network.

Cooperating Institutions: Inter-American Institute of Agricultural Sciences, Iowa State University
Location of Documentation: Project documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: MSU joined with Iowa State University to aid the Inter-American Institute of Agricultural Science in building and improving institutional capabilities in agricultural planning, policy development, and sector analysis in 23 Latin American and Caribbean countries. The effort involved an initial assessment of interests, needs, and capabilities in planning; development of training materials, workshops, and in-service programs for staffs of agricultural planning divisions; and promotion and implementation of networking activities among countries of the region.
LUCE FUND FOR CHINESE SCHOLARS

Donor: Henry Luce Foundation
Contract No.: Memorandum of Agreement
Account No.: 71-4200; 71-4238
Location: MSU Campus
Duration: September 1982-open date (one year for each scholar for a total period of 5 years)
Budget: $25,000 per scholar per year (to date MSU has received $75,000)

Key MSU Faculty: Warren Cohen, Director (Asian Studies Center)

Project Goals: To bring scholarly insights and objectivity to the American view of the evolving American-Chinese relationship through the support of distinguished Chinese scholars in the social sciences and humanities for periods of six months to one year in residence at leading centers for China studies.

Project Plans/Objectives:
1. To identify and invite distinguished scholars from China to be in residence up to one year at the sponsoring institution.
2. To provide financial support for scholars at one of 17 U.S. institutions in which there is a Chinese studies center, including direct stipends, housing, maintenance, domestic travel for attendance at seminars and symposia.
3. To maintain an informational network among all 17 U.S. institutions concerning the names and biographical information of scholars to be invited to the sponsoring institution.

Cooperating Institutions: Columbia University, Cornell University, The Fletcher School of Law and Diplomacy at Tufts University, Harvard University, Michigan State University, Princeton University, the School for Advanced International Studies at Berkeley, the University of California at Los Angeles, University of Chicago, University of Michigan, University of Pennsylvania, University of Southern California, University of Washington, University of Wisconsin, and Yale University

Location of Documentation: All project information is available from Lillian Kumata, Asian Studies Center, 101 Center for International Programs.

Project Summary Comment: This program is designed to bring together distinguished scholars from the People's Republic of China and from leading U.S. universities that have Asian/Chinese Studies Centers and faculties highly interested in, and knowledgeable of, China. The program is structured such that each institution can invite one scholar per year, with no two scholars representing the same discipline in consecutive years. The emphasis in choosing scholars is on the social sciences and the humanities. A third scholar is expected to arrive at MSU in September 1985.
Donor: United Nations Industrial Development Organization (UNIDO)
Contract No.: UNIDO Contract 80/157; DP/MEX/78/011
Account No.: 71-4228
Location: Mexico
Duration: March 1981-June 1983
Budget: $37,956

Key MSU Faculty: C. Mackson, T. Downes, B. Harte, H. Lockhart, J. Giacin (Packaging)

Project Goals: To train personnel employed by the Mexican Government in their National Laboratories in packaging (specifically in food packaging) requirements, techniques, and costs, and to assist the Government in on-going research projects.

Project Plans/Objectives: The work performed in this project included:
1. To appraise national conditions for implementation in Mexico City.
2. To prepare tentative course outlines.
3. To determine and collect assigned reading materials.
4. To prepare course materials.
5. To present two courses: Food Packaging, and Analytical Aspects of Packaging.
6. To conduct special projects, including individual laboratory assistance and advice on specific research projects.
7. To prepare proposals for continuing cooperation.
8. To attend meetings in Mexico City related to proposals for continuing cooperation.

Cooperating Institutions: Mexican Institute for Assistance to Industry (IMAI)

Location of Documentation: Project reports can be obtained from T. Downes, 113H Packaging.

Project Summary Comment: MSU's School of Packaging worked with the Mexican Institute for Assistance to Industry from 1981-1983 in improving its training courses in packaging. Sponsored by a grant from UNIDO, these courses were intended to expand and increase the degree of specialization in packaging training that can be offered by IMAI.

The School of Packaging sent no less than four teams to Mexico over the period of the grant to conduct courses as well as to train members of IMAI for improvement of their own teaching skills. A set of modular two-week courses was designed and conducted, and a study was performed to establish cooperative links between the training services of IMAI and other Mexican institutions.

MSU's School of Packaging is a unique resource that is in great demand throughout the world. As a result of the training course designed and conducted in Mexico, similar efforts were undertaken in Brazil and Morocco to upgrade the training ability of these countries in packaging techniques.

Students have come to MSU's Packaging School from Turkey, Poland, Korea, Finland, the Netherlands, Turkey, Taiwan, and the Philippines. Through linkages these students and the faculty have created, the School is currently negotiating further training contracts to be of service to the food industry in these and other countries.
MICROCOMPUTER STATISTICAL PACKAGE (MSTAT)

Donor: Agency for International Development, United Nations Development Program, Farming Systems Support Project (University of Florida), Title XII

Contract No.: A37446 with the University of Florida

Account No.: 71-3813, 71-3815 (FSSP), 71-4220 (UNDP), 71-1991 (Title XII),

Location: Worldwide. Workshops have been conducted in Zimbabwe, Mali, Malawi, Senegal, IRRI in the Philippines, Ecuador, and the U.S.

Duration: November 1983-December 1985

Budget: Florida--$213,712; UNDP--$39,500; Title XII--$12,000

MSU Faculty Involvement: Russell Freed, Director (Crop & Soil Science); an advisory board consisting of D. Isleib (Institute of International Agriculture), E. Everson (Crop & Soil Science), M. Weber and R. Bernsten (Agricultural Economics)

Project Goals: To develop an integrated microcomputer program that will assist agricultural scientists in most of the steps involved in doing agricultural research--to generate experimental designs, manage and transform data, and analyze experiments from both a biological and economical perspective. The program includes the following general features: generate experimental designs; print field books, labels and field maps; sort data; transform data; create histograms; create one and two-way tables; generate descriptive statistics; perform economic analysis; organize plant breeding programs; produce ASCII files; and accept ASCII files.

Project Plans/Objectives:
1. To generate a newsletter (publication commencing April 1985) for all MSTAT purchasers and users.
2. To present workshops in Pakistan and Bangladesh under the auspices and sponsorship of CIMMYT.
3. To revise programs and include new programs in plant breeding and agricultural economics.
4. To network with MSTAT users.

Cooperating Institutions: Farming Systems Support Project at the University of Florida, International Rice Research Institute in the Philippines, CIMMYT, IADS, UNDP

Location of Documentation: MSTAT Office, 324 Agriculture Hall

Project Summary Comment: In collaboration with several institutions and as a result of networking arrangements with MSTAT users, the program is continually being updated to include new programs that meet the needs of its users. The package is currently available in French, Spanish and English. The MSTAT package includes the following subprograms:
ANNOVA-1 Computes a one-way analysis of variance
ANNOVA-2 Computes a two-way analysis of variance
ANOVALAT Computes a lattice analysis of variance
BLANK Creates blank data cases
BRBOOK Prints field books for breeding material
BRLABEL Prints labels for breeding material
BRLIST Updates generation and prints pedigree
CALC Data Transformation
COR Computes simple correlations/regressions
DATENTRY Data entry procedures
ECON Marginal returns analysis, net benefit
EXPBOOK Prints field books
EXPLABEL Prints labels
EXPPLAN Prints field maps
EXPLABEL Generates RCB designs
FACTOR Computes factorial or split-plot ANOVA
FROMREAD Data entry from survey forms
FREQ Computes freq & histograms
FROMCOMP Creates MSTAT files from ASCII files
FROMTEMP Reformation of MSTAT files
GROUPIT Groups data into specific groups
HIERARCH Hierarchical analysis of variance
LIST Screen listing and editing of data
LISTREAD Variable and case editing
MEAN Computes and stores means
MULTIREG Computes multiple regression
NONORTHO Computes a nonorthogonal ANOVA
PLOT Creates an X-Y scatter plot
PRLIST Listing of data files on a printer
REGR Computes within & between group regressions
SELECT Creates new files using selection data
SORTA,B,C,D Sorts data with 4 levels of keys
STAT Computes summary statistics
TABTRANS Tabular transformation of data
TOTEMP Creation of ASCII files
VARBOOK Prints field books
VARNLABEL Prints labels
VARMAP Creates and prints field maps
VARPLAN Creates yield trial designs

While no formal evaluation of MSTAT has been conducted, informal favorable feedback from workshop participants (individuals at CIAT, IRRI, ILCA, and AID field personnel) on the effectiveness of the programs and the workshops has been received.

Individuals and institutions interested in the workshops or in purchasing the programs and guide may contact the MSTAT office. Cost for the workbook and programs is $50 to MSU personnel, $100 for non-MSU interested parties.
MIE UNIVERSITY EXCHANGE

Donor: Government of Japan
Contract No.: Memorandum of Understanding
Account No.: Not available
Location: Japan
Duration: June 1973-Ongoing
Budget: $50,400 to date

Key MSU Faculty: Merle Esmay, Project Leader (Agricultural Engineering); C. Hansen and B. Stout (Agricultural Engineering)

Project Goals: To establish and maintain an informal linkage program between the Agricultural Machinery Department of MIE University of Tsu, Japan, and the Agricultural Engineering Department of MSU.

Cooperating Institutions: MIE University

Location of Documentation: Information on this linkage agreement can be obtained from M. Esmay (Agricultural Engineering).

Project Summary Comment: This linkage was initially stimulated by two MIE University faculty members who are graduates of MSU. At least four faculty members from MIE University have come to MSU, and three faculty members have received doctoral degrees from MSU.
NATIONAL EDUCATIONAL RESEARCH & PLANNING (NERP)--TURKEY

Donor: Agency for International Development
Contract No.: AID/mesa-065
Account No.: 71-1994
Location: Turkey
Duration: January 1968-February 1974
Budget: $884,000

Key MSU Faculty: Cole Brembeck, Campus Coordinator (Institute of International Studies in Education); Ben Bohnhorst, Chief of Party (Teacher Education); Kenneth Neff, Field Team Advisor and Campus Coordinator (Teacher Education); Harry Case, Campus Coordinator

Project Goals: To assist the Ministry of Education in developing an increased capacity for educational research and planning, including the training of professional personnel, technical assistance in the application of skills acquired, development of a unit within the Ministry to provide services and leadership in education planning and research, and provide assistance in the installation and use of an information system to supply data needed for research and planning projects.

Project Plans/Objectives:
1. To establish a modern data bank and data management system, including subordinate systems of records and reports, data storage and retrieval, and analysis and research, data processing, and utilization and dissemination.
2. To publish a basic set of fundamental research studies upon which better long range planning may be based.
3. To develop procedures for applying research findings and the information contained in the data bank to budgeting and planning in the Ministry of Education.
4. To establish the RPO (Planning, Research & Coordinating office of the Ministry of Education) as a viable administrative agency capable of carrying out regular programs of leadership training and educational research.

Cooperating Institutions: Ministry of Education

Location of Documentation: Final reports are located in University Archives and Special Collections, Main Library.

Project Summary Comment: The project achieved its goals by 1) training Turkish personnel in needed areas of competency, 2) helping the RPO set up a national educational data bank in cooperation with Turkish university computer centers, 3) assisting RPO design and carry out data collection and research, and 4) helping RPO build communications among--and to work closely with--other Ministry of Education agencies on budgeting and planning. A study was conducted on the high attrition rates in secondary education and included information on who attends school, who drops out, why, what drop-out perceptions and aspirations may be, what aspirations their parents may have for them, what employment opportunities they have, and what part school plays in their development. This study served as a foundation for helping determine, among other things, optimum new investments in types and locations of new buildings, in types of school programming that are maximally effective, and requirements for new teaching staff.
Donor: Agency for International Development
Contract No.: AID/Afr-C-1372
Account No.: 71-2037
Location: Niger
Duration: September 1977-October 1978
Budget: $39,984

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); T. Carroll (Center for Advanced Studies in Development); L. Manderscheid and T. Zalla (Agricultural Economics)

Project Goals: To design an agricultural economics research program in Niger as an integral part of INRAN.

Project Plans/Objectives:
1. To strengthen computer research capabilities in order to analyze larger volumes of data.
2. To further develop the skills of INRAN personnel through AID participant training activities.

Location of Documentation: A project report can be obtained from T. Carroll (Center for Advanced Studies in Development).

Project Summary Comment: This project was designed to ascertain ways in which INRAN might be strengthened in its ability to collect, process, and analyze data. A project paper was produced for AID, but no projects were subsequently funded.
NATURAL RESOURCES DEVELOPMENT DOCTORAL PROGRAM

Donor: Merida Institute of Technology (Instituto Tecnologico Regional De Merida--ITM)
Contract No.: ORD 30673
Account No.: 71-4222
Location: Mexico and MSU campus
Duration: January 1981-December 1986
Budget: $25,760

Key MSU Faculty: Manfred Thullen, Team Leader (International Studies & Programs/Resource Development); D. Chappelle and M. Steinmiller (Resource Development)

Project Goals: To assist in establishing a doctoral program in natural resources development at the Merida Institute of Technology.

Project Plans/Objectives:
1. To assist ITM staff assess their own resources and that of other institutions that might be used to contribute toward a doctoral program in resource development.
2. To assist ITM staff in developing preliminary curricular areas of concentration for the proposed doctoral program.
3. To assist ITM staff in developing possible research areas to be followed that would support the proposed teaching program.
4. To assist ITM staff in considering human, physical, and institutional resources needed for implementing the proposed program.
5. To assist ITM staff in developing a strategy and calendar of activities that could be used for implementing the proposed program.

Cooperating Institutions: ITM, Centro de Investigaciones Cientificas, Centro de Investigaciones y Estudios Avanzados del instituto Politecnico Nacional, Instituto Nacional de Investigaciones sobre Recursos Bioticos, Secretaria de Agricultura y Recursos Hidraulicos, Secretaria de Programmacion y Presupuesto

Location of Documentation: Preliminary reports and other documents can be obtained from M. Thullen, 209 Center for International Programs.

Project Summary Comment: This program between MSU and ITM is a long-range institution building project that will lead to the establishment of a doctoral program in natural resources development in Merida. The faculty of the Department of Resource Development at MSU provides ITM with systematic advice on the development of a quality academic program, the development of ongoing research efforts to support a graduate program, the development of adequate library facilities, and the design of the needed physical infrastructure.

This program represents a continuation of the relationship that has existed for many years between MSU and ITM. Other activities have included faculty exchanges, student exchanges, MSU study abroad programs, and Spanish language training programs for both MSU faculty and students. The Latin American Studies Center at MSU has fostered this cooperative arrangement for many years, with mutual benefits for both universities.

The program is in a temporary hold phase due to financial constraints in Mexico. When re-activated, it is likely that graduate degree programs will emphasize biotechnology and resource management.
NATURAL RESOURCES MANAGEMENT (NARMA)

Donor: Agency for International Development
Contract No: 517-0126
Account No: 71-2021
Location: Dominican Republic
Duration: September 1982-September 1986
Budget: $1,000,000

Key MSU Faculty: G. Schultink, Director (Resource Development); F. Gomez (Social Science); D. Bronstein, S. Witter, M. Thullen, D. Chappelle, A. Zusmanis, and P. Kakela (Resource Development); T. Burton (Zoology); D. Mokma (Crop & Soil Science); H. Riley, M. Weber, L. Libby, and D. Larson (Agricultural Economics); M. Lipsey (Cartography); L. James, L. Toinbaugh, V. Rudolph, M. Koelling, J. Gunter, J. Hart, and J. Wright (Forestry); G. Larson (Geology); W. Enslin, D. Hudson, and D. Lusch (Center for Remote Sensing); M. Lipsey (Center for Cartography & Spatial Analysis)

Project Goals: To assist the Government of the Dominican Republic in developing existing capabilities for planning and management of natural resources, within the Subsecretariat of Natural Resources (SURENA), in conjunction with the Natural Resource Management Project (MARENA); to establish a comprehensive natural resource information system by expanding and upgrading of the CRIES (Comprehensive Resource Information and Evaluation System) software resident on the computing facilities of SURENA; to develop a national resource plan and associate implementation recommendations.

Project Plans/Objectives:
1. **Environmental Law and Administration**
   To conduct a comprehensive assessment of existing national legislation relating to concerns and issues as expressed by host country institutions with a responsibility in natural resources management and planning in order that the legal responsibilities and roles of institutions might be reoriented in future resource management and regional/national planning.

2. **Environmental Monitoring**
   To review existing environmental monitoring capabilities and prepare detailed plans for the development and upgrading of related capabilities within SURENA or other institutions.

3. **Agricultural Zoning**
   To conduct a systematic analysis to assess physical resource production potential in the Dominican Republic using existing survey data (DAS and CRIES land base report) refined with information on available soils (physical and chemical characteristics), climate series data and vegetation indicator species to be used to define agro-ecological zones with an emphasis on agricultural production potential for export commodities and food crops.

4. **Marketing and Price Analysis**
   To provide collaborative assistance in carrying out market assessments for the primary products affected by the project in order to provide an understanding of the production situation and market organization for the relevant commodities.

5. **Cartography**
   To conduct a detailed review of available cartographic products and laboratory facilities within the Dominican Republic in order to ascertain the reliability of current equipment and maps to meet present and future project needs.
6. **Human Resource Development**
   To establish criteria for evaluating the training needs in natural resource management, and to estimate the nature and level of training needs.

7. **Natural Resource Economics**
   To advise on criteria with which to evaluate natural resource problems and assist on estimation of benefits and costs of alternative strategies to alleviate natural resource problems.

8. **Forestry and Silviculture**
   To conduct an extensive review of the current forest status in the Dominican Republic, including a comparison of the forest patterns illustrated on maps prepared by FAO, DGF, and overall patterns mapped by CRIES.

**Cooperating Institutions:** In the Dominican Republic, the Subsecretariat of Natural Resources, the Natural Resource Management Project; with Ohio State University in the Environmental Education subcontract.

**Location of Documentation:** Project proposals and progress reports are available either from G. Schultink (Resource Development) or P. Roberts, Project Administrator (Institute of International Agriculture).

**Project Summary Comment:** Developed as a spin-off of the CRIES projects, this AID-supported project is designed to assess the natural resource base of the Dominican Republic. The project represents the first step of a massive national program to halt the destruction of natural resources, particularly hillside deforestation.

Drawing heavily upon the skill and expertise available at MSU through the CRIES projects, the intent of this project is to develop standardized cartographic data, design a system to measure soil erosion, conduct land use studies, examine legislation related to natural resources, and develop a national forest management plan. The project will also train individuals within the Dominican Republic Subsecretariat of Natural Resources to plan and implement activities as part of the national effort.
NEPAL INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCE

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development

Contract No.: AID/NESA-C-1197 (AID/MUCIA Contract)

Account No.: 71-3876

Location: Nepal

Duration: December 1975-September 1984

Budget: $5,335,436

Key MSU Faculty: Darrell Fienup, Campus Coordinator (Agricultural Economics); D. Meaders and R. Ray (Agricultural Education); G. Axinn, G. Wood, M. Thorne, and H. Whittier, Team Leaders; N. Axinn (Non-formal Education); H. Bird, J. Williams, W. Combs, and R. Deans (Animal Science); H. Bittenbender (Horticulture); P. Kaplan, G. Axinn, G. Wood, H. Schwarzweller, and R. Middleton (Rural Development/Sociology); H. Whittier (Anthropology); J. Libby, H. Coppel, and K. Chapman (Entomology); W. Nelson (Farm Management); I. Wyeth (Institute of International Agriculture)

Project Goals: To increase agricultural production in Nepal by assisting the Government of Nepal's Tribhuvan University in developing the Institute of Agriculture and Animal Science in order that Nepal could train individuals to help fill manpower needs in the agricultural sector.

Project Plans/Objectives:
1. To assist in the overall development of the institution, including academic planning with the Chief of Party working with and through the Dean of IAAS.
2. To assist in the development of a departmental structure, curricula, of courses of study, and practical field and laboratory experiences.
3. To assist with staff improvement, participant selection, and campus planning.
4. To assist with the development of an extension/adult/nonformal program for villages and other out-of-school youth and adults.
5. To develop a baccalaureate program.

Cooperating Institutions: IAAS, Tribhuvan University, Government of Nepal, MUCIA

Location of Documentation: A Final Report written by Herb Whittier (team leader in Nepal for the final months of the project) is available from the on-campus Administrative Assistant, Mrs. Ardell Ward, Institute of International Agriculture, 101 Agriculture Hall. Project Documents are available from the Office of the Dean of International Studies and Programs, 209 Center for International Programs.

Project Summary Comment: Since the project's inception in 1975, MSU has served as the lead university for MUCIA in supporting the development of the IAAS at Rampur, Nepal. IAAS is the nation's only institution of higher education in agriculture, and provides training at the baccalaureate, certificate, and diploma levels. A major goal of the project, to develop the baccalaureate degree program, was achieved in mid-1979 when the first class of B.Sc. degree recipients graduated.

As project leader, MSU was responsible for the management of all facets of this AID-supported project. The overall objective was to assist the IAAS to meet manpower training needs of Nepal's agricultural sector more effectively. Major project ac-
complishments, carried out in full partnership with Nepalese staff, include: a) providing long- and short-term staff members who have advised and participated in curriculum development, teaching, and research; b) training IAAS staff members at the advanced degree level in the U.S. and in the Philippines; c) developing and conducting special non-degree training programs; d) procuring and shipping educational materials and project equipment to Rampur; e) the formation of a new Extension Coordination Committee with members from all relevant departments, chaired by the Dean, and coordinated by a Member Secretary appointed by the Dean; f) the development of guidelines for outreach efforts at IAAS which were being brought before the Extension Coordination Committee for review and refinement; g) the formation of the Farmer's Advisory Board, a liaison and advisory group consisting of key members of the Extension Coordination Committee, farmers from each ward, and local panchayat leaders; h) the completion of a baseline study of all farm families in the PEP; i) the decision to extend outreach services to farmers in other panchayats adjacent to the campus in addition to the PEP panchayat; and j) the receipt of an invitation from the Department of Agriculture to prepare an upgrading, in-service training course for its extension workers.

Unique features of the project include: a) the development of two satellite campuses; b) development of practical, simple, applied research projects by joint student/staff IAAS/MUCIA teams; c) carrying out of appropriate nonformal education and extension projects in nearby villages by joint student/staff IAAS/MUCIA teams; d) synthesis and trial of new and modified courses of instruction and learning arrangements in keeping with Nepal needs; e) development of procedures for coordination of IAAS programs with various government agencies; f) cooperative working arrangements with Nepal farmers, with relevant units of Tribhuvan University, and with selected institutions of higher education in agriculture in the Philippines, India, and the U.S.; and g) specially designed group workshops and seminars for all Nepal students studying in the U.S.
Overview

The activities of the Non-Formal Education Center were proposed to the Agency of International Development as an extension of the work of the Institute for International Studies in Education. The Institute's primary purpose was to initiate, coordinate, and help implement programs of international and cross-cultural interest to students and faculty within the College of Education. The Institute also engaged in a wide variety of international programs, including technical assistance in educational planning and institution building, graduate education overseas, research projects, training programs, academic degree programs in comparative and international education, consultation, technical studies, in-service training in bi-national schools, overseas student teaching, global education, non-formal education, and foreign student advisement and consultation.

Under this broad mandate, and with the growing interest of various departments and institutes on the MSU campus in international development, then Director Cole Brembeck and his staff proposed in 1970 the establishment of a non-formal education project to not only complement the work being conducted by the Institute but also to revise it to fit the changing needs of international education. The first goal of this program was to establish a conceptual and practical base for assisting growth of non-school educational activities in developing countries. The proposed guidelines were to move from the initial compilation of information and production of informational and theoretical papers on the role and potential contribution of non-formal education to training and assistance for countries that are incorporating non-formal education as an important component of a strategy for development of human resources. Having established a strong theoretical and informational base, the project then turned to specific non-formal educational needs in particular countries. The plan of work in providing this type of assistance in a given country included nine areas of study: historical perspectives, categories and strategies, country comparisons, learning effectiveness, economic factors, case study surveys, model feasibility, administrative alternatives, and participant training. In performing these studies, it was anticipated that host country governments of developing countries would be provided with a systematic base of knowledge on non-formal education in response to their growing needs for such information and for expanding their educational systems to incorporate different educational models. This first phase ran from July 1971-1974.

The second phase of the project (1973-1974) called for service activities, i.e., working with foreign nationals in conducting an analysis of their educational sector, developing the role of non-formal education in making education more cost-effective, increasing the understanding of the contribution non-formal education could make in human resource development, and strengthening the developing country's ability to identify, plan, and utilize non-formal education in an overall education strategy.

The third phase of the project required the continuation of research on the role of non-formal education in making education more cost-effective and the conduct of seminars and workshops on non-formal education both domestically and overseas. Through the continued participation of MSU faculty and staff in conducting country based and theoretical studies on non-formal education, a number of papers was generated which, more or less, reflected the state of the art on the subject as well as provided a number of case studies. The Non-Formal Education Center was thus established in 1974 as a clearinghouse/knowledge building/research resource on non-formal education and development. The Center and the work it did fostered an international exchange of knowledge and experience.

The fourth phase (1979-1983) of the project called upon MSU to provide two kinds of
services: operate a clearinghouse and network on user-oriented information related to non-formal education, and provide direct technical assistance to developing countries in establishing their own national and/or regional non-formal education information centers. A specific focus of the tasks conducted considered issues in women in international development, for which additional funding was secured.

Among the many accomplishments of the Non-Formal Education Center are the publication of The NFE Exchange (distributed to all members of the Network), topical annotated bibliographies, occasional papers, an NFE resource collection, the conduct of training workshops, and a special program on women in international development.

In order to respond effectively to changing educational needs, a new era in the collection and dissemination of information on education has begun at MSU with the transformation of the Non-Formal Education Center into the new Office for International Networks in Education and Development (INET). The mandate of INET is to continue the work of the previously-established NFE Center while expanding the nature of the information collected and disseminated, and adding to it clientele to include networking support in formal education (especially K-12 schooling and teacher education). The main objective of INET is to support the international outreach of the College of Education through service to a) international development educators throughout the world, b) faculty and students whose work has international dimensions or implications, and c) alumni whose work would benefit from continued interchange with MSU. Particular objectives of INET include:

1. To provide networking support for international research and development assistance in education.
2. To serve as a clearinghouse and information broker for MSU faculty and students seeking information relating to formal and non-formal education outside the United States.
3. To stimulate the international exchange of faculty and students as they relate to the international objectives of the College.
4. To maintain and update the NFE collection, tailoring the collection to available resources and current MSU interests in international development education.
5. To gradually and selectively expand the collection to serve current college interests in formal as well as non-formal education in countries other than the United States.
6. To assist in the raising of external funds to support the international objectives of the college.

INET is supported jointly by Title XII funds with matching resources from the College of Education. INET's new Director, Alemu Beeftu, will continue working toward the goals and objectives set forth above. All inquiries about INET, and its forerunner--the Non-Formal Education Center--may be directed to Dr. Beeftu, 237 Erickson.
NON-FORMAL EDUCATION (1)

Donor: Agency for International Development
Contract No.: AID/csd-3279
Account No.: 71-2029
Location: MSU campus (with assistance provided to national planning groups and ministries of education in Ethiopia, Paraguay, Jamaica, Brazil, Ecuador, Colombia, Peru, Pakistan, Nepal, Costa Rica, Nicaragua, El Salvador)
Duration: July 1971-June 1974
Budget: $450,000

Key MSU Faculty: Cole Brembeck, Director (Dean, Education); G. Axinn (Agricultural Economics); M. Borus (Labor & Industrial Relations); M. Buschman, L. Doyle, J. Ivey, R. Kleis, and R. Niehoff (Administration & Higher Education); M. Grandstaff, D. Heenan, and T. Ward (Secondary Education & Curriculum); W. Herzog (Communication Arts); H. Higbee and R. Smuckler (Political Science); J. Hunter (Economics); F. Waisanen (Sociology)

Project Goals: To provide developing countries with the beginning of a systematic base of knowledge on non-formal education, including studies concerning historical perspectives, categories and strategies, country comparisons, learning effectiveness, economic factors, case study survey, model feasibility, administrative alternatives, and participant training.

Cooperating Institutions: In Jamaica, institutions included the Ministry of Education, Organization of American States, the Canadian International Development Agency, World Bank, and AID; in Ethiopia, the Ministry of Education, Haile Sellasie I (now Addis Ababa) University, World Bank and AID

Location of Documentation: Quarterly and semi-annual reports for 1971 through 1976 are located in University Archives and Special Collections, Main Library. Supplementary documentation is located in the INET Office, 237 Erickson.

Project Summary Comment: Under this first phase of AID support, more than fifty faculty members and graduate students from various colleges in the University participated in the program. The first two years were spent conducting studies and collecting information to increase available knowledge on non-formal education. This information was used to provide new insights, produce planning guides, and develop alternative strategies that were useful in subsequent NFE activities. The case studies conducted were published by the NFE center and are available in the INET office.
NON-FORMAL EDUCATION (2)

Donor: Agency for International Development
Contract No.: AID/csd-3279
Account No.: 71-2029
Location: MSU campus (with assistance provided to national planning groups and ministries of education in Ethiopia, Paraguay, Jamaica, Brazil, Ecuador, Colombia, Peru, Pakistan, Nepal, Costa Rica, Nicaragua, El Salvador)
Duration: February 1973-March 1974
Budget: $100,000

Key MSU Faculty: Same as Non-Formal Education (1)

Project Goals: To develop resources for developing countries to utilize in planning for implementing non-formal education in the context of overall educational plans and strategies.

Project Plans/Objectives:
1. To conduct two seminars at overseas location (Ethiopia and Paraguay).
2. To provide technical team assistance to overseas locations.
3. To develop expertise in non-formal education among young scholars.

Cooperating Institutions: In Ethiopia, the Ministry of Education and the Planning Commission

Location of Documentation: Various reports are located in University Archives and Special Collections, Main Library; supplementary materials are located in the INET Office, 237 Erickson.

Project Summary Comment: This second grant by AID allowed for the implementation of recommendations generated as a result of the case study surveys conducted in various countries. Through working with various ministries of education and through sponsoring workshops in several developing countries, the concepts and theories developed during the first phase were disseminated and made a part of the educational planning processes in several countries.
NON-FORMAL EDUCATION (3)

Donor: Agency for International Development
Contract No.: AID/CM/ta-C-73-22
Account No.: 71-2011
Location: MSU Campus (with assistance provided to national planning groups and ministries of education in Ethiopia, Peru, Brazil, Paraguay, Lesotho, Indonesia, and Thailand)
Duration: February 1974-September 1981
Budget: $2,107,724

Key MSU Faculty: Ted Ward and S.J. Levine (Educational Administration); Mary Rainey and Joan Claffey (College of Education) and all others listed in Non-Formal Education (1)

Project Goals: To develop resources for developing countries to utilize in planning for implementing non-formal education in the context of overall educational plans and strategies; to establish a non-formal education information dissemination center.

Project Plans/Objectives:
1. To follow up on the two country seminars conducted under Non-Formal Education (2).
2. To identify on the basis of professional involvement at least three institutions (one in each region).
3. To conduct at least two additional seminars in overseas locations.
4. To develop a non-formal education handbook.
5. To provide visits of experts or technical teams in response to expressed needs or "targets of opportunity".
6. To develop non-formal education expertise among young scholars.
7. To continue to expand the knowledge base developed by previous contracts.
8. To develop a clearinghouse activity for dissemination of non-formal education information.
9. To provide regular or special non-formal education training programs for developing country personnel visiting the U.S. under AID programs.

Cooperating Institutions: Local ministries of education, planning commissions, and university staffs

Location of Documentation: Semi-annual reports for 1974-1979 are located in University Archives and Special Collections; an annual report for 1978-79 of the Institute for International Studies in Education (which, up to 1979, housed NFE activities) is located in the INET Office, 237 Erickson.

Project Summary Comment: The building of a network for exchange of program ideas, documents, and reports on non-formal education was the major focus of this phase of NFE funding. The Non-Formal Education Information Center was established in order to build upon the systematic knowledge base in non-formal education by providing to researchers, program developers, and practitioners the following: a) a reference exchange service to assist in obtaining published and unpublished materials for persons working in the fields of non-formal education and development; b) topical lists of non-formal education resources to identify NFE materials, organizations, and
personnel in a variety of thematic areas; c) a reference library and depository for books, periodicals, reports, papers, surveys, and studies on non-formal education; and d) a publications program to widely distribute information on non-formal education.

This funding phase also witnessed the establishment of the Special Institute that is conducted yearly for researchers, program developers, and practitioners in non-formal education. Each year a different focus for the Institute has been developed, with the first one in 1979 considering the general topic "Studies in Non-formal Education". The Institute is open to interested parties around the world, and generally includes training specialists, educational planners, administrators in higher education, development specialists, and educational specialists in health education, family planning, and rural development. Information about the yearly focus of the Institute can be obtained from S.J. Levine (Educational Administration).
NON-FORMAL EDUCATION (4)
NON-FORMAL EDUCATION NETWORK
NFE NETWORK AMENDMENT--WOMEN IN DEVELOPMENT

Donor: Agency for International Development
Contract No.: AID/DSPE-C-00046
Account No.: 71-2032
Location: MSU campus, Bolivia, Peru, Paraguay, Nicaragua, Brazil, Bolivia, Indonesia, Lesotho, Ivory Coast, Mali, Senegal, Liberia, Philippines
Duration: August 1979-September 1983 (core); March 1980-August 1982 (amendment)
Budget: $1,236,421 (core); $179,733 (amendment)

Key MSU Faculty: J. Claffey and M. Pigozzi (College of Education); G. Axinn (International Studies & Programs)

Project Goals: To further stimulate interest in, and knowledge of, non-formal education as a vital element in the development of developing countries.

Project Plans/Objectives:
1. To operate a clearinghouse on user-oriented information related to non-formal education.
2. To provide direct technical assistance to selected developing countries that want to establish their own national and/or regional information centers.

Cooperating Institutions: Ministries of Education, especially those in the Ivory Coast, Colombia, and the Philippines

Location of Documentation: Project reports are located in the INET office, 237 Erickson.

Project Summary Comment: As a result of site visits conducted under NFE (3), three organizations were selected to work in collaboration with MSU and to serve as regional NFE/WID information centers. These are: 1) Institut Africain Pour Le Developpement Economique et Social Documentation (INADES) in the Ivory Coast; 2) Servicio de Intercambio de Informacion en Educacion No Formal para America Latina (SINENFAL) in Colombia; and 3) NFE/WID Information Exchange Center for Asia at the College of Agriculture at the University of the Philippines at Los Banos (UPLB). The establishment of these three NFE centers satisfied the second objective of the project.

The first project objective was satisfied in the activities undertaken in the expansion of network operations of the NFE Center. These included maintaining the NFE Information Library at MSU, responding to requests for NFE information from network affiliates, producing the NFE Exchange, producing occasional papers and selected annotated bibliographies, conducting special and formative evaluation studies, fostering and developing an interregional NFE network through personal contacts and conferences, and making maximum feasible use of the Development Information and Utilization Center of the AID Development Support Bureau for information dissemination and printing of publications.

Due to changes in AID funding policies, support for the NFE Center was terminated at the end of this contract. The new office of International Networks in Education and Development (INET) emerged as a result of changing foci within the College of Education (which housed the Institute for International Studies in Education up to 1979 and the NFE Center), funding agencies, and the needs of educational institutions in developing countries. Information on INET can be obtained from Alemu Beeftu, Director, INET, 237 Erickson.
NUTRITION OF CATTLE IN THE MEXICAN TROPICS

Donor: National Science Foundation/U.S. and Mexico, Mexican National Institute of Livestock Research

Contract No.: INT 77 06036 (NSF)
Account No.: 71-1674
Location: Mexico
Duration: February 1978-January 1982
Budget: $185,560

Key MSU Faculty: Robert Cook (Dairy Science)

Project Goals: To determine the mineral status of four different geographical regions in the State of Vera Cruz and to determine the effects of ammonia, sulfur, and isoacids on the rumen fermentation of high fiber substrates.

Project Plans/Objectives:
1. To enhance the rumen microbial fermentation of the low protein, fibrous plant materials in the areas.
2. To determine the nutrient requirements of young growing cattle.
3. To determine the mineral adequacies, deficiencies, and toxicities that exist in the study areas.

Cooperating Institutions: Institute Nacional de Investigaciones Pecuarias (INIP), "La Posta" livestock experiment station (CIPP), Palo Alto Central Unit (UCPA)

Location of Documentation: Information on this project can be obtained from R. Cook, 20 Anthony Hall.

Project Summary Comment: Important conclusions reached at the close of this project include 1) isoacids are an important rate limiting factor in the rumen fermentation of high fiber substrates, 2) rumen ammonia and hydrogen sulfur levels required for maximum fermentation may be higher than previously thought, and 3) calcium, phosphorus, magnesium, copper, and selenium are deficient in pasture grasses for beef production.
OFF FARM EMPLOYMENT--RURAL SMALL SCALE INDUSTRIES

Donor: Agency for International Development
Contract No.: AID/ta-CA-2
Account No.: 71-2008, 71-2009
Location: Bangladesh, Thailand, Jamaica, Honduras, Sierra Leone, Bolivia, Egypt
Duration: August 1977-April 1983
Budget: $2,264,218

Key MSU Faculty: Carl Liedholm, Director (Agricultural Economics); H. Kriesel, D. Mead, W. Vincent, M. Weber, Y. Fisseha, M. Menegay, and J. Shaffer (Agricultural Economics)

Project Goals: To improve the ability of developing country institutions and AID missions to design and implement off-farm employment generation projects so that they operate more effectively to increase the productivity, income, and quality of life of the rural poor.

Project Plans/Objectives:
1. To develop and test guidelines for the collection and analysis of information on off-farm employment to be utilized by developing country institutions and AID missions in program and policy formation.
2. To generate state-of-knowledge papers on off-farm employment.
3. To consult with developing country institutions and AID missions on off-farm employment generation.
4. To disseminate knowledge and guidelines generated on off-farm employment.

Cooperating Institutions: Host country educational institutions and appropriate ministry personnel

Location of Documentation: Reports, proposals, and budgets are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: The objective of the off-farm employment project was to enhance the ability of AID and host country institutions to identify and implement programs and policies to generate off-farm employment and income opportunities benefiting the rural poor. Since information on rural enterprises and off-farm employment is frequently inadequate or even nonexistent in developing countries, a major component of the project involved the collection of new information, primarily by means of detailed field surveys of rural non-farm enterprises. Undertaken in collaboration with host country institutions, these in-depth field surveys and studies were conducted in a number of countries. The results of these studies have been used to develop projects and adjust government policies. A number of these research reports are available from the Agricultural Economics Project Office, 7 Agriculture Hall, under the general heading "African Rural Employment/Economy Working Papers", "MSU Rural Development Working Papers", and "MSU International Development Working Papers".
PAKISTAN ACADEMIES FOR RURAL DEVELOPMENT

Donor: Ford Foundation
Contract No.: Not available
Account No.: 71-2034
Location: Pakistan and Bangladesh
Duration: 1957-1972
Budget: $2,163,183

Key MSU Faculty: R. Niehoff, Project Director (Administration & Higher Education/International Studies and Programs); C. Brembeck (Institute for International Studies in Education)

Project Goals: To assist officials of the Pakistan Government responsible for the development and administration of rural development programs through the establishment of two academies for rural development, one at Comilla in East Pakistan (now Bangladesh) and one at Peshawar, West Pakistan.

Project Plans/Objectives:
1. To train economists, sociologists, statisticians, educators, and agriculturalists in research for rural development.
2. To provide laboratory experience for the integration of research, evaluation, training, and extension in collaboration with villagers, staff, and government officials.
3. To establish viable voluntary cooperative units at the village level with strong administration that emphasizes developmental activities, training of local leaders, and continuing education for villagers and officials.

Cooperating Institutions: Peace Corps, specialists from Japan, Denmark, and the Population Council of New York, the academies at Comilla and Peshawar

Location of Documentation: All documents on this project are located in University Archives and Special Collections, Main Library.

Project Summary Comment: The following was excerpted from Education & World Affairs, The University Looks Abroad, New York: Walker & Co., 1965:

At the request of the Pakistani government and the Ford Foundation, an MSU survey mission visited Pakistan in 1956 to look into the training needs and possibilities in connection with that country's Village Aid and Basic Democracies program, aimed at providing political and general leadership at the village level to stimulate agricultural and industrial development and full utilization of resources on a community basis. As a result of this survey, MSU agreed to help develop two Village Aid academies, one at Comilla in East Pakistan (Bangladesh), and the other at Peshawar, in West Pakistan. These academies were to provide additional university-level education for rural development leaders.

The academies started virtually from scratch. Faculties were recruited from Pakistani applicants, and during 1958 most of them received training at MSU. The academies opened for classes in 1959, with six MSU faculty working with the Pakistani faculty members.

Both academies have been actively involved in rural development programs in Pakistan and have undertaken instruction, research, and experimental demonstrations in the fields of cooperatives, agricultural production, local government and rural credit formation, mechanization in agriculture, education, family planning, youth work, women's work, and related fields.
PEACE CORPS INTERN TRAINING

Donor: ACTION
Contract No.: 73-042-0041; 76-042-1014
Account No.: 71-2015, 71-2006, 71-2030
Location: MSU Campus, Philippines, Malaysia, Thailand, Nepal
Duration: July 1971-June 1977
Budget: $105,461; $309,783

Key MSU Faculty: Charles Laughlin, Project Leader (Office of Academic & Student Affairs); Irving Wyeth (Institute of International Agriculture); J. Kielbaso (Forestry)

Project Goals: To assist agricultural growth and development in the four countries by providing effective, well prepared Peace Corps Volunteers.

Project Plans/Objectives:
1. To recruit applicants.
2. To develop a training component relevant to the needs of agriculture and related fields in the Far East and Pacific.
3. To provide MSU agricultural graduates with opportunities for professional experience in a developing country.
4. To provide Peace Corps with graduates possessing prescribed technical backgrounds.

Cooperating Institutions: Ministries of Agriculture in each participating country

Location of Documentation: Descriptions of annual activities are located in quarterly reports of international activities produced by the Institute of International Agriculture located in University Archives and Special Collections, Main Library, and in the Institute of International Agriculture, 101 Agriculture Hall.

Project Summary Comment: This program was looked upon by Peace Corps/Washington as a model of success among U.S. universities. In addition to the credit seminars offered, student training included U.S. travel, extra-curricular activities with Filipino and Thai students, language training in Nepalese, Thai, and Tagalog, involvement of a number of faculty members in the College of Agriculture as representatives of the Advisory Committee, and other activities.
PEACE CORPS/MSU MASTER'S IN EDUCATION

Donor: Peace Corps
Contract No.: Not available
Account No.: Not available
Location: MSU campus, Nigeria
Duration: September 1965-August 1968
Budget: Not available

Location of Documentation: Much of the information concerning this aspect of MSU's involvement in Peace Corps activities is found in the University of Nigeria--Nsukka project material in University Archives and Special Collections, Main Library.

Project Summary Comment: MSU's involvement in Peace Corps activities dates back to 1964 when faculty were involved in providing training for a group that went to Chile. Recruiting and training volunteers for Nigeria developed out of MSU's University of Nigeria institution building project. The current contract was a further development that occurred in response to the needs expressed for trained volunteers in specialized fields. In order to more closely allay the university with Peace Corps, internships were subsequently established. When Peace Corps policy changed, MSU continued its Peace Corps involvement by recruiting qualified people to fill "scarce skill" and other needs in developing countries.

The following was excerpted from Education & World Affairs, The University Looks A Broad, New York: Walker & Co., 1965, and speaks directly to the master's in education program:

In the autumn of 1965 the Office of International Extension inaugurated a new Peace Corps program, the first of its kind in the U.S., under which qualified PC volunteers had the opportunity to work for a master's degree and for Michigan teacher certification while carrying out their Peace Corps assignment. Known as the MSU-Peace Corps Master's in Education Program, it was designed by the Peace Corps in response to a request by the Government of Nigeria for additional professional secondary school teachers. MSU organized both the academic program on campus and in Nigeria. While in Nigeria Volunteers acquired MSU credit through independent study, supervised teaching and seminar work--under the direction of MSU faculty members in Nigeria. Following 24 months of service in Nigeria, the Volunteers returned to MSU for an additional term of study to complete their degree and certification requirements.
PEACE CORPS RECRUITMENT CONTRACT

Donor: ACTION/Peace Corps
Contract No.: Varies with year
Account No.: Varies with year
Location: MSU Campus
Duration: September 1976-August 1985
Budget: Information available on 1980-81, $9,997; 1981-82, $9,997; 1983-84, $9,963; 1984-85, $9,990

Key MSU Faculty: David Wiley, Director (African Studies Center)

Project Goals: To collaborate with the Peace Corps/Detroit office to recruit Peace Corps Volunteers for assignments in Africa, Latin America, Asia, and the Pacific.

Project Plans/Objectives:
1. To organize and implement recruitment presentations in classrooms, clubs, residence halls, conferences, formal, and informal gatherings.
2. To advertise the activities of Peace Corps using the media available on and off campus.
3. To conduct recruitment interviews with prospective Volunteers.
4. To maintain and extend a network of departmental contacts who either have an interest or who have served in the Peace Corps.
5. To participate in off-campus recruiting activities in coordination with Peace Corps/Detroit.
6. To organize informal gatherings of former Peace Corps Volunteers in order that they might interact with prospective Volunteers.

Cooperating Institutions: Other Peace Corps Strategy Contractors in the Midwest Region; Peace Corps/Detroit; Peace Corps/Washington

Location of Documentation: Some documentation on the early years of MSU involvement with Peace Corps is located in University Archives and Special Collections, Main Library. Other information is located in the African Studies Center, 100 Center for International Programs, or in the Peace Corps Coordinating Office, 206B Center for International Programs.

Project Summary Comment: In April 1985 MSU received an award for recruiting the largest number of Peace Corps Volunteers among all university recruiters. This outstanding record dates back to the 1960s when recruitment took place under the auspices of the College of Agriculture and Natural Resources. Because of the very fine record MSU has established, the campus has been able to host the creation of the Michigan Returned Peace Corps Volunteers Association, and to conduct a number of festivals and career fairs designed to further inform interested parties of Peace Corps activities. The recruitment office is run by two graduate students, each of whom works 10 hours per week in fulfilling the goals and objectives of the contract. Additional grants have been obtained from other sources to conduct special activities, including a grant from "Feeding the World" to establish the Michigan Returned Peace Corps Volunteers Association.
PERFORMANCE TESTING OF JAPANESE POWER DISK

Donor: Toyosha Co., Ltd., Japan
Contract No.: Memorandum of Understanding
Account No.: Not available
Location: MSU campus and Japan
Duration: September 1983-September 1986
Budget: Under Negotiation

Key MSU Faculty: Thomas Burkhardt, Director (Agricultural Engineering); B. Wilkinson (Agricultural Engineering)

Project Goals: To evaluate the performance and power requirements under U.S. conditions of a Japanese power disk.

Cooperating Institutions: Mie University in Japan, Bush Hog Co. (marketing agent for Toyosha machinery)

Location of Documentation: Information on this project can be obtained from T. Burkhardt (Agricultural Engineering)

Project Summary Comment: The uniqueness of this project is that it represents a joint undertaking between a Japanese and an American university, and between a Japanese and an American company. Potential outcomes of this project are the redesign of the machine to fit variable tillage conditions, including those in developing countries, and the presentation of findings to meetings of the American Society of Agricultural Engineers. The project involves research by students from developing countries.
PHYSIOLOGICAL EFFICIENCY AND PLANT ARCHITECTURE IN THE FIELD BEAN

Donor: Rockefeller Foundation
Contract No.: R 72020
Account No.: 71-3092
Location: Colombia, Brazil, Peru, Venezuela, Panama, El Salvador, Costa Rica, Mexico
Duration: March 1973-July 1977
Budget: Approximately $224,000

Key MSU Faculty: Wayne Adams, Director (Crop & Soil Science)

Project Goals: To conduct research on the production of a type of edible field bean that has higher yielding potential and more specifically concern for efficiency of different architectural plant types oriented to sub-tropical areas of Central and South America.

Project Plans/Objectives:
1. To conduct field research to understand the importance of finding differences in starch accumulation in stem and root tissues in bean cultivars.
2. To design and construct a portable system to measure rates of photosynthesis under field conditions using a photosynthetic chamber.
3. To conduct research on the measurement of light penetration and distribution in the canopies of different bean plant types at differing densities and on the measurement of rates of photosynthesis in these canopies.
4. To determine those morphological and/or architectural traits in beans which contribute to yield and to yield stability when grown in associated culture with maize.
5. To conceptually develop a bean ideotype, to produce the ideotype or a close approximation to it through breeding and selection, and to distribute germplasm representing this ideotype to various bean programs throughout the world.

Cooperating Institutions: CIAT, Cornell University, Hokkaido University in Japan

Location of Documentation: Information on this project can be obtained from W. Adams (Crop & Soil Science).

Project Summary Comment: A significant part of this research was the heavy involvement of foreign graduate students at MSU: two from Thailand, and one each from Guatemala, Dominican Republic, El Salvador, Iran, Peru, and Brazil. In addition to the valuable experience they gained from direct involvement with this project, each of these students was able to conduct some of their individual research in their home countries.
POND DYNAMICS COLLABORATIVE RESEARCH
SUPPORT PROGRAM (CRSP)

Donor: Agency for International Development grant with Title XII funds to Consortium for International Fisheries and Aquaculture Development (CIFAD) with CIFAD sub-contract to MSU
Contract No.: AID/DSAN-G-0264 (to CFAD); 2-7247-04 sub-contract with Oregon State University as lead institution in the Consortium
Account No.: 71-3811
Location: Indonesia
Duration: September 1982-August 1985
Budget: $383,296 (MSU share)

Key MSU Faculty: C. McNabb, B. Premo, and N. Kevern (Fisheries and Wildlife)

Project Goals: To increase the availability of animal protein in Indonesia through pond aquaculture by undertaking an in-depth study of the physical, chemical, and biological processes regulating the productivity of pond culture systems at medium to higher elevations in West Java, and fingerling production systems for Cypinus carpio and other appropriate species in West Java.

Project Plans/Objectives:
First Year:
1. To complete a quantitative baseline of chemical, physical, and biological parameters for each work location.
2. To observe quantitative physical, chemical, and biological responses to various levels of inorganic fertilizer application to pond culture systems, and test for significant correlations within and between work locations.
3. To observe and document technical constraints limiting fry availability in each participating host country.
4. To compile a baseline of information on locally available nutrient inputs and local geography, hydrology, and water quality in Indonesia.

Second Year:
1. To extend the quantitative baselines compiled in year one to reflect seasonal and annual varieties.
2. To observe quantitative physical, chemical, and biological responses to other treatments (e.g., pond preparation, use of locally available inputs as fertilizers, supplemental and within treatments, between and within work locations).
3. To test alternative fry pond methods where appropriate.
4. To develop predictive models describing the principles of pond culture systems.

Cooperating Institutions: CIFAD members--University of Arkansas at Pine Bluff, University of Hawaii, University of Michigan, and Oregon State University (lead institution)

Location of Documentation: A project proposal is available in the Office of Contracts and Grants, 302 Administration; more extended documentation is available from participating faculty.
Project Summary Comment: This MSU project is concerned with freshwater aquaculture as it is practiced in cooler water tropical ponds at medium to higher altitudes in Indonesia, particularly in West Java. The goal of the project is to determine maximum limnological conditions for the production of larvae and fingerlings. Physical, chemical, and biological mechanisms that regulate the productivity of pond culture systems are being studied in a continuing series of field experiments conducted over a two-to-five-year period. The intent of the CRSP is to introduce a new research program into participating countries to strengthen the in-country research systems and capabilities.
POOR RURAL HOUSEHOLDS--TECHNICAL CHANGE AND INCOME DISTRIBUTION IN DEVELOPING COUNTRIES

Donor: Agency for International Development
Contract No.: AID/ta-C-1328
Account No.: 71-2023
Location: Sierra Leone, Ghana, Ethiopia, Benin
Duration: July 1976-September 1979
Budget: $345,354

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Byerlee, D. Spencer, and C. Liedholm (Agricultural Economics)

Project Goals: To analyze the effects of rural development policies and projects, including pricing policies and technological packages, on the rural and urban poor.

Project Plans/Objectives:
1. To analyze the direct benefit incidence of rural development policies and projects.
2. To analyze the direct and indirect benefit incidence of rural development projects and policies through an analysis of farm, rural non-farm, and urban linkages.
3. To develop methodologies for measuring the benefit incidence of rural development policies and projects.
4. To analyze the cost effectiveness of alternate information systems for incorporating benefit incidence in project appraisal and ongoing project evaluation.

Cooperating Institutions: Cornell University (undertaking a similar project in the Philippines, Indonesia, and India) and Purdue University (undertaking a similar project in Brazil); Njala University College, University of Sierra Leone

Location of Documentation: Semi-annual reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: MSU, in cooperation with West African colleagues, analyzed the direct and indirect benefit incidence of rural development projects and policies by examining farm, rural non-farm, and urban linkages. The study team then developed methodologies for measuring the benefit incidence of rural development policies and projects and analyzed the cost-effectiveness of alternate information systems for incorporating this data into project evaluations.
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POST-PRODUCTION TECHNOLOGY--RICE LOSSES IN INDONESIA

Donor: Agency for International Development
Contract No.: AID/DSAN-0007
Account No.: 71-2046
Location: Indonesia
Duration: March 1978-December 1979
Budget: $30,897

Key MSU Faculty: Merle Esmay (Agricultural Engineering)

Project Goals: To ascertain rice harvest losses in farmer's fields in Indonesia.

Project Plans/Objectives:
1. To measure field losses of existing cutting and threshing methods.
2. To evaluate these methods in regards to labor requirements and profitability.
3. To analyze the effect of alternative technologies and their possible impact upon the reduction of rice losses, labor requirements, profitability, and capital needs.

Cooperating Institutions: University of Gadjah Mada, Indonesia

Location of Documentation: Information on this project can be obtained from M. Esmay (Agricultural Engineering).

Project Summary Comment: Funding for this project was obtained primarily to support a graduate student's dissertation research. In addition to his dissertation, a publication "Traditional Rice Harvest Loss and Labor Values in Indonesia" was produced by D. Gaiser and M. Esmay, which appeared in TRANSACTIONS, Vo. 24, No. 5, 1981.
POWER AND MACHINERY TRAINING PROGRAM

Donor: FAO and John Deere Co.
Contract No.: Not available
Account No.: Not available
Location: Colombia
Duration: April 1972-April 1974
Budget: Not available

Key MSU Faculty: R. Wilkinson (Agricultural Engineering)

Project Goals: To write a basic training manual for tractor operators for use in developing countries.

Location of Documentation: Project documents can be obtained from R. Wilkinson (Agricultural Engineering).

Project Summary Comment: A basic training manual for tractor operators, designed for potential use overseas, has been developed and tested by MSU agricultural engineers in collaboration with and support from the John Deere Company. The objective of this training program was to properly train operators in the developing countries to obtain maximum utilization of the equipment being used with minimum delay and expense caused by improper use and adjustment. The program was tested on a group of students composed of Puerto Rican and Mexican farm laborers. The manual was reproduced by FAO for world-wide distribution.
RURAL AGRICULTURAL PROGRAM MANAGEMENT

Donor: Agency for International Development
Contract No.: AID-csd-3132
Account No.: 71-2037
Location: Costa Rica
Duration: June 1971-October 1973
Budget: $177,103

Key MSU Faculty: Garland Wood, Director (Agricultural Economics); W. Oberg (Management); W. Herzog (Data Processing); I. Wyeth (Institute of International Agriculture)

Project Goals: To aid those public institutions with rural responsibilities to improve their delivery systems for development programs so as to enrich the life of their rural people.

Project Plans/Objectives:
1. To study the key inter-dependencies the Consejo Nacional de Produccion (CNP) has with other institutions in the country.
2. To study, through interviews and/or questionnaires, the small farmer's perceptions of the target organizations and his needs with respect to the service goals of these organizations.
3. To develop training materials for the management of rural agricultural programs.

Cooperating Institutions: Inter-American Institute of Agricultural Sciences (IICA)

Location of Documentation: Quarterly reports from July-December 1972 are located in University Archives and Special Collections, Main Library.

Project Summary Comment: This study was designed to help organizations adapt management concepts, systems, and techniques to rural development tasks. The initial study was begun in Costa Rica in 1971, in cooperation with the Inter-American Institute of Agricultural Sciences and AID. The study design was used to examine the public institutions serving the rural sector. Findings from the study formed the basis for improving management and training capabilities of various agency staff. A publication, "Studying Agricultural Institutes--A Modular Approach", was widely distributed.
RURAL EMPLOYMENT IN TROPICAL AFRICA: A NETWORK APPROACH (1)

Donor: Agency for International Development
Contract No.: AID/csd-3306
Account No.: 71-2032
Location: Ethiopia, Nigeria, Sierra Leone
Duration: June 1971-March 1972
Budget: $50,000

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Byerlee, C. Liedholm, V. Sorenson, and D. Spencer (Agricultural Economics)

Project Goals: To strengthen the knowledge and data base underpinning decisions regarding rural employment in Africa.

Project Plans/Objectives:
1. To jointly review, with African colleagues, unemployment problems, government policies, and strategies in the targeted African countries.
2. To assemble relevant conceptual and methodological literature.
3. To draft workpapers on a conceptual framework for the study.
4. To convene all researchers at Ibadan to draft a joint proposal for funding.
5. To explore joint funding possibilities with AID/Mission and indigenous institutions.

Cooperating Institutions: University of Addis Ababa, Ethiopia; University of Ibadan, Nigeria; University of Sierra Leone, Sierra Leone

Location of Documentation: Some documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator; others may be obtained from H. Riley (Agricultural Economics).

Project Summary Comment: This project represented the initial stage of a larger project to conduct research on rural employment in tropical Africa. Proposals, which were part of the objectives of the present contract, were submitted to AID and subsequently funded under AID/csd-3625. A summary of the work undertaken under this project follows.
RURAL EMPLOYMENT IN TROPICAL AFRICA: A NETWORK APPROACH (2)

Donor: Agency for International Development
Contract No.: AID/csd-3625
Account No.: 71-2007
Location: Ethiopia, Nigeria, Sierra Leone
Duration: June 1972-March 1977
Budget: $847,471

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Byerlee, C. Liedholm, V. Sorenson, and D. Spencer (Agricultural Economics)

Project Goals: To conduct micro-studies of the economic viability of labor-for-capital substitutions in production and marketing of selected high priority food crops; to identify rural labor supply and characteristics of migration; to evaluate rural employment policies related to national goals in a partial equilibrium framework involving regional demand and supply projections; to provide necessary empirical evidence for more substantive sector analysis through the systematic application of a simulation approach, alternative input/output or other programming approaches.

Project Plans/Objectives:
1. To develop and refine a conceptual framework and work plan for analyzing the employment problems and policies of developing countries at both the micro and macro economic levels and incorporating the employment component into project, sub-sector, and sector analysis in developing countries, with emphasis on tropical Africa, as represented by Ethiopia, Nigeria, and Sierra Leone.
2. To conduct rural employment studies that will include demand for labor in agricultural production systems, demand for labor in off-farm rural activities, and determinants of out-migration.
3. To evaluate the effects of micro and macro agricultural policies on rural employment and income and develop general policy guidelines for the Ministries of Agriculture and Planning in dealing with the employment problems in tropical Africa.
4. To provide an improved theoretical and quantified basis for incorporating labor into sectoral and macro-planning models.
5. To formulate specific agricultural policy guidelines to deal with employment problems in selected African countries.
6. To stimulate the development of a community of African scholars through a network that will link them with each other and with worldwide scholars engaged in employment research by conducting seminars and workshops, stimulating interchange between scholars, and promoting joint and complementary research efforts.

Cooperating Institutions: University of Addis Ababa, Ethiopia; University of Ibadan, Nigeria; University of Sierra Leone, Sierra Leone

Location of Documentation: Some documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator; others can be obtained from H. Riley (Agricultural Economics).
Project Summary Comment: This MSU study focused on the comparative analysis of the development process. The research emphasized rural development problems such as demand for labor in alternative production systems and in the rural non-farm sector, the migration process, and the impact of macroeconomic policies on labor absorption in agriculture. The project network established linkages with similar research networks in Latin America and Asia and with organizations such as FAO, the International Labor Organization (ILO), and the World Bank.

Since each of the projects undertaken for Ethiopia, Nigeria and Sierra Leone is slightly different, they are presented as discrete projects in the next three pages.

Many working papers were developed as a result of the research undertaken in these projects. They are available from the Agricultural Economics Projects Office, 7 Agriculture Hall and are listed under the general heading "African Rural Employment Papers-AREP".
RURAL EMPLOYMENT IN TROPICAL AFRICA: A NETWORK APPROACH (3)
ADA WEREDA RURAL DEVELOPMENT PROGRAM--ETHIOPIA

Donor: Institute of Development Research, Addis Ababa University with funds from the Agency for International Development

Contract No.: AID/csd-3625
Account No.: 71-3909
Location: Ethiopia
Duration: July 1975–March 1977
Budget: $107,402 (Portion of contract allocated to Ethiopia)

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); Warren Vincent and D. Spencer (Agricultural Economics); A. Mehretu (Geography)

Project Goals: To assess the Ada Wereda Rural Development Program in terms of its effect on output, incomes, employment, and income distribution.

Project Plans/Objectives:
1. To develop a conceptual framework for analyzing the socio-economic impact of the Ada Project over the 1974-76 period, including production, income, employment, and income distribution.
2. To undertake micro-level studies in the Ada District, including demand for labor in alternative production systems, demand for labor in off-farm rural activities, and determinants of seasonal and permanent migration.
3. To aggregate the results of the micro-level research to evaluate the effects of alternative policies on production, income, employment, and income distribution over the 1974-76 period.
4. To assist the Ministry of Agriculture in developing national strategies and policies for dealing with problems of rural employment and income distribution.
5. To assist in providing an improved theoretical and empirical basis for incorporating labor into project, sub-sector, sectoral, and macro-planning models and rural development evaluation techniques that can be used by the Ministry of Agriculture and the Planning Commission Office.
6. To contribute to the training of Addis Ababa University economists and agricultural economists through research experience for undergraduate and graduate students.
7. To facilitate the development of a community of African researchers through the African Rural Employment Research Network.
8. To contribute to the development of the capacity of the Institute of Development Research to carry out policy oriented research on rural development.

Cooperating Institutions: Institute of Development Research, Addis Ababa University

Location of Documentation: Project documents and final report by W. Vincent are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
**Project Summary Comment:** This contract is a continuation of an agreement reached under a Memorandum of Understanding dated May 17, 1974, that arose out of the institution building sub-contract MSU held with MUCIA under the title "Addis Ababa (Ethiopia) University/MUCIA Activity Agreement".

The research results of this project were used by the management of the Ada Project, as well as the Extension and Project Implementation Department of the Ministry of Agriculture. Additionally, the methodology developed by the Ada research team was useful in the Ministry of Agriculture's overall evaluation of agricultural projects.
RURAL EMPLOYMENT IN TROPICAL AFRICA: A NETWORK APPROACH (4)

ACCELERATED FOOD PRODUCTION AND EMPLOYMENT IN KWARA STATE

Donor: Agency for International Development
Contract No.: AID/csd-3625
Account No.: 71-2007
Location: Nigeria
Duration: Not available
Budget: A portion of main grant listed in "Rural Employment in Tropical Africa: A Network Approach (2)"

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Byerlee (Agricultural Economics)

Project Goals: As listed in Rural Employment in Tropical Africa: A Network Approach (2)

Project Plans/Objectives:
1. To develop and apply methodology for generating primary data on output, employment, and incomes in rural areas with particular emphasis on food producing regions.
2. To analyze the determinants of rural employment and rural-urban migration and provide policy recommendations to Nigerian planners for increasing rural employment within the context of accelerated food production.
3. To facilitate the development of the research capacity of Nigerian agricultural economists.
4. To facilitate the development of a master's degree in agricultural economics at the University of Ibadan through provision of policy relevant research opportunities for graduate students.

Cooperating Institutions: Federal Ministry of Agriculture and natural Resources, University of Ibadan--Department of Agricultural Economics

Location of Documentation: Some project documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Coordinator; others can be obtained from H. Riley (Agricultural Economics).
RURAL EMPLOYMENT IN TROPICAL AFRICA: A NETWORK APPROACH (5)

Donor: Agency for International Development
Contract No.: AID/csd-3625
Account No.: 71-2007
Location: Sierra Leone
Duration: Not available
Budget: A portion of main grant listed in Rural Employment in Tropical Africa: Network Approach (2)

Key MSU Faculty: Carl Eicher, Director (Agricultural Economics); D. Spencer (Agricultural Economics)

Project Goals: As listed in Rural Employment in Tropical Africa: A Network Approach (2)

Project Plans/Objectives:
1. To conduct a farm level study, including the analysis of demand for and use of labor in different farming systems and resource regions, of income and the distribution of income within and between different resource regions, of the linkages between rural agriculture and nonagricultural production, and the preparation of budgets for different agricultural production systems and production function analyses to examine the efficiency of resource use in different agricultural production systems.
2. To conduct a study on consumption to analyze income elasticities and the employment impact of present income distribution patterns.
3. To conduct a study on small-scale industry, including the specification and estimation of production functions for rural small-scale industries, linear programming analysis of production in rural small-scale industries with the aim of analyzing factor substitution among firms, and the use of chi-square and other tests to examine the factors that affect entrepreneurial performance, the objective being to determine whether policy could be developed that would enhance the growth of these industries and increase incomes and employment in the sector.
4. To conduct research on marketing and processing, including preparation of budgets of resource use and output for three levels of processing technology, i.e., hand processing, use of small mills and hullers, and use of large mills, the construction of a linear programming model to analyze the employment impact of different technological packages that might be adopted to facilitate the transition from on-farm hand processing to off-farm commercial processing of agricultural commodities, and an analysis of the regional price spreads, the factor intensity of different marketing systems, and the marketing margins for the major agricultural commodities in different regions in Sierra Leone.
5. To conduct research on migration focusing on estimation of econometric equations that determine the population distribution and hence labor supply in rural and urban areas.
6. To develop a rural economy model to evaluate the effects of policies on rural incomes, employment, and output and will provide a means of explicitly incorporating employment in policy analysis.

Cooperating Institutions: Ministry of Agriculture, University of Sierra Leone

Location of Documentation: Some project documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Coordinator; others can be obtained from H. Riley (Agricultural Economics).
SAHEL MASTER'S DEGREE TRAINING
AFRICAN DEVELOPMENT/RURAL ECONOMY PROGRAM

Donor: Agency for International Development
Contract No.: AID/afr-C-1267
Account No.: 71-2024
Location: MSU Campus (recruitment of students from Burkina Faso, Niger, Senegal, Gambia, Mauritania, Mali, Togo, and Cape Verde)
Duration: October 1976-February 1985
Budget: $292,270

Key MSU Faculty: L. Manderscheid, Director (Agricultural Economics); T. Zalla, J. Bingen, C. Eicher (Agricultural Economics)

Project Goals: To create the staff and support capability to help select, train, and provide post-graduate field support for Sahelians at the master's degree level in agricultural economics.

Project Plans/Objectives:
1. To assist AID field officers and host governments in the Sahel to identify and screen qualified candidates for the training program.
2. To arrange adequate English language and economics training programs.
3. To ensure that the program is suited to the operational requirements of the positions the Sahelian candidates will fill on their return home.
4. To support the participants in their course work.
5. To provide on-the-spot field follow-up for the graduates of the program.

Cooperating Institutions: Yearly reports, proposal, budget, expenditure reports, etc. are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: In 1983 there were 21 graduates and 9 current enrollees for a total of 30 students in the Sahel Master's program. Of these, 28 have been/will be in Agricultural Economics and two in Agricultural Education.

Each Agricultural Economics student conducts research that provides the basis for a master's thesis. These theses are shelved in the Agricultural Economics Reference room in Agriculture Hall.
SAHEL SECRETARIAT AND DOCUMENTATION CENTER (I AND II)

Donor: Agency for International Development
Contract No.: I--AID/afr-C-1261; II--AID/afr-0929-G-SS-2011-00
Account No.: I--71-2003; II--71-2020
Location: The Secretariat is located at MSU, but materials collection and African network are located in the Sahel countries of West Africa.
Budget: I--$636,000; II--$253,381

Key MSU Faculty: Carl Eicher (Agricultural Economics); E. de Benko and O. Ezera (International and Africana Library); J. Lauer and L. Dorsey (Documentation Center Coordinators); L. Manderscheid (Agricultural Economics); D. Wiley (African Studies Center)

Project Goals: To acquire, catalog, house, publicize, and make available documents dealing with the socio-economic development of the Sahel; to act as a center of expertise and reference for researchers, planners, and consultants working in or concerned with the Sahel region; to be a major depository and service center for socio-economic publications in the Sahel.

Project Plans/Objectives:
1. To establish the Center as an integral part of the services of the MSU Libraries.
2. To identify, acquire, and process materials relevant to socio-economic aspects of development in the Sahel.
3. To make these materials accessible to the wide spectrum of potential users at MSU, AID, and throughout the Sahel, Europe, and North America.
4. To identify and establish linkages with other centers and organizations with similar functions.
5. To participate actively in the development of information for and about development in the Sahel.

Specific implementation and scope of work requirements include:
1. To acquire documents concerning the Sahel from around the world with emphasis on agricultural planning and development, small scale industry, human resources development, agricultural marketing, food storage and price policy, transportation, technology transfer (including the Institut du Sahel), ecology, and any other major activity addressed by the Working Group of the Club des Amis du Sahel as essential to planning for the long-term development of the Sahel region.
2. To coordinate acquisition activities with other repositories of documents concerning the Sahel to establish a division of labor and avoid duplication.
3. To prepare microfiche copies of acquired documents.
4. To provide copies of documents or microfiche to the thirteen documentation centers in the Sahel and to the AFR-SWA Documentation Center at AID/Washington.
5. To provide one copy of English language books or articles dealing with Sahelian socio-economic development to the documentation centers at CILSS (Permanent Interstate Committee for Drought Control in the Sahel in Ouagadougou, Burkina Faso); the Club des Amis du Sahel; the Institut du Sahel in Bamako, Mali; and to the AFR/SWA Documentation Center at AID/Washington.

6. To provide technical assistance to the Institut du Sahel in developing a training plan for maintenance and management of their documentation center.

7. To prepare a quarterly annotated bibliography, the *Bulletin on the Sahel*, and make it available to concerned parties.

Cooperating Institutions: University of Michigan (CRED), Purdue University, universities and publication offices of institutions in the countries of the Sahel

Location of Documentation: Project documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: The Sahel Secretariat serves as a resource base for faculty, graduate students, visiting scholars, and AID personnel who are involved in applied research concerning the Sahel or in implementation of development projects in the Sahel. The Sahel Documentation Center was established by the MSU Library in 1976 to locate and document all known materials on the Sahelian nations of West Africa and to begin returning those materials to the Sahel in microfilm and hard copy for use by those nations in seeking improved quality of life.

The Center provides a source of comprehensive, current, professional information on the Sahel region for AID, other donor agency officials, and consulting firms; for students of Sahel development; and for training, consulting, and research activities in the Sahel conducted by MSU and other institutions. It is co-financed by grants from AID and, through the African Studies Center, from the U.S. Department of Education. The *Sahel Bibliographic Bulletin* is distributed without charge to over 1,000 individuals and institutions in Africa, Europe, and North America. Subscriptions to the bulletin may be obtained through L. Dorsey, Director, Sahel Documentation Center, Main Library.
SAHEL ZONE PROJECT IN AFRICA

Donor: Agency for International Development
Contract No.: AID/afr-C-1182
Account No.: 71-2010
Location: Burkina Faso (formerly Upper Volta), Niger, Benin
Duration: October 1975-April 1976
Budget: $52,584

Key MSU Faculty: Carl Eicher, Team Leader (Agricultural Economics); D. Wilcock and T. Zalla (Agricultural Economics)

Project Goals: To conduct program planning research into African rural economy problems.

Project Plans/Objectives:

Burkina Faso
1. To conduct field investigations to implement AID activities in the Eastern Ord.
2. To estimate costs and technical feasibility for secondary and feeder road construction, improvement, and maintenance.
3. To recommend a "minimum necessary" system of basic production and marketing information gathering.

Niger
To prepare a preliminary scope of work for conducting cost of production studies to assess long-term economic viability of the Niger Cereals, Entente Food Production, and Regional Grain Production and Marketing projects.

Benin
To explore the availability of information on existing animal traction schemes in northern Benin.

Cooperating Institutions: Burkina Faso--Director of Eastern ORD, FAO Project Manager

Location of Documentation: All project documents, including reports and budgets, are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.
SENEGAL AGRICULTURAL RESEARCH AND PLANNING PROJECT DESIGN
SENEGAL TECHNICAL SERVICES/TRAINING

Donor: Agency for International Development/Senegal Mission
Contract No.: AID/685-0223-c-00-1064-00
Account No.: 71-2010
Location: Senegal
Duration: November 1981-November 1986
Budget: $4,697,907

Key MSU Faculty: C. Eicher, Director (Agricultural Economics); D. Fienup, J. Bingen, E. Crawford, L. Mandersheid, J. Staatz, M. Kamuanga, and M. Newman (Agricultural Economics)

Project Goals: To increase the capacity of the Government of Senegal to more effectively plan and evaluate agricultural development policies and projects by strengthening the macro-economic and farming systems components of the new, decentralized Senegalese Agricultural Research Institute (ISRA).

Project Plans/Objectives:
1. To develop Senegalese research capacity through in-country, third-country, and long-term overseas training and through participation in the design and execution of production systems research and macroeconomic research programs.
2. To assist in organizing and carrying out production systems research in major ecological zones in order to identify social, economic, technical, and institutional constraints on present farming systems and develop improved technical packages that are biologically stable, privately profitable, and socially acceptable.
3. To carry out macroeconomic research on food, nutrition, and agricultural policies in order to provide guidance to policy makers on economic and institutional constraints on agricultural production and marketing with emphasis on the food grain sub-sector and food security.

Cooperating Institutions: Senegal–ISRA, SOMIVAC, SAED

Location of Documentation: All project papers, contracts and budget information are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: Summaries are presented on the three different phases of the project:
1. **Training**—ISRA researchers selected for long-term training are being placed in several U.S. universities. MSU coordinates their training programs to best meet the needs of each trainee and the demands of ISRA for its new research program.
   In addition to their degree coursework, ISRA students attend an intensive summer institute on farming systems field research methods at MSU. This institute is designed to foster inter-disciplinary research by helping trainees from various subject areas build skills in farming systems research. The institute gives special attention to a) the meaning, potential, and limits of farming systems research; b) the techniques of field data collection and analysis; and c) using programmable calculators and micro-computers in farming systems research.
The project provides for the training of 24 ISRA scientists through the master's degree. Some of the students may return to Senegal to conduct their thesis research.

2. Technical Assistance--MSU will provide five long-term researchers to ISRA. A rural social scientist serves as the field project director in Senegal and member of the Central Systems Analysis Group within ISRA's Production Systems Department. Two MSU production systems economists will be assigned to the production systems teams at two different regional research stations. One is already working at the Djibelor Station in the Casamance Region. Two MSU economists will also be assigned to ISRA's newly created Bureau of Macroeconomic analysis located in Dakar.

To complement the technical assistance provided through long-term placement of researchers in Senegal, MSU will draw on the wide range of expertise among its permanent staff and faculty for short-term consultancies in specified areas deemed necessary by ISRA.

3. Documentation and Data Analysis--Two other areas of major project involvement are improving ISRA's Documentation and Information Service and strengthening computer services available to researchers. MSU will assist in the documentation effort by helping reorganize and improve ISRA's documentation service and helping develop a professional journal for agricultural research.

Assistance to ISRA's computer services primarily involves preparing training manuals and software for the IBM 5120 micro-computers at four regional research stations. Specifically, MSU is identifying and developing micro-computer software to meet the specific needs of researchers at the stations. Special attention is also being given to developing training materials for use by students in the U.S. and staff in Senegal who wish to learn how to use micro-computers.

A list of reports and working papers generated throughout the course of this project is available from J. Munn, Agricultural Economics Project Office, 7 Agriculture Hall.
SMALL ENTERPRISE APPROACHES TO EMPLOYMENT

Donor: Agency for International Development
Contract No.: AID/DAN-1090-A-00-2087-00
Account No.: 71-2036--Core & Bangladesh, 71-2037--Peru, Sri Lanka,
71-2041--Egypt, 71-2045--Philippines, 71-2046--Indonesia,
71-2022--Zambia
Location: Asia, Latin America, Africa
Duration: September 1982-September 1987
Budget: $1,196,219

Key MSU Faculty: C. Liedholm, Coordinator (Agricultural Economics); P. Strassman
(Economics); D. Mead (Agricultural Economics)

Project Goals: To maintain an important applied research capacity at Michigan State
University to assist developing countries in the small enterprise development area.

Project Plans/Objectives:
1. To conduct in-depth applied research and consultancy on small enterprise
development; to assist AID Missions and governments of developing countries in
designing, monitoring, and evaluating projects aimed at the development of small
enterprises.
2. To conduct functionally oriented special studies relating to the development of
small enterprises, including studies on a) development of improved, lower-cost
screening criteria for use by financial institutions in loan programs for small
enterprises, b) working capital needs of small enterprises, c) subcontracting
arrangements between village and town producers, smaller enterprises in
provincial capitals, and larger firms, and between local manufacturers and
either producers or merchants overseas, and d) small scale business operated
from the home (a continuation of the study conducted under contract titled
"Small Enterprise Approaches to Employment (Housing Component")
3. To provide an overview of small enterprise research.
4. To organize workshops to disseminate information and findings of the project to
AID project officers and other practitioners interested in small enterprise
development.

Location of Documentation: Proposal, contract and expenditure reports are located in
the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects
Administrator.
SMALL ENTERPRISE APPROACHES TO EMPLOYMENT (HOUSING COMPONENT)

Donor: Agency for International Development
Contract No.: AID/DS/otr-C-0012
Account No.: 71-2049, 71-1992, 71-2037
Location: Sri Lanka, Pakistan, Zambia, Tunisia, Colombia, Kenya, Peru
Duration: September 1978-April 1982
Budget: $293,850

Key MSU Faculty: P. Strassman, Director (Economics)

Project Goals: To design, select, collect, and process primary data from a household survey to ascertain information on home businesses or employment and income generation in dwellings.

Cooperating Institutions: In Peru, the Peruvian labor Ministry and the General Bureau of Employment; in Sri Lanka, Marga Institute

Location of Documentation: Reports on Sri Lanka and Peru are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.

Project Summary Comment: The Housing Component of the Small Enterprise Approaches to Employment fed into the larger study that sought to assist developing countries in the small enterprise development area. One study that came out of this research, "Guidelines for Estimating Employment Generation Through Shelter Sector Assistance," is available from AID/Washington; another, "Employment and Housing in Lima, Peru," is available from the Agricultural Economics Projects Office (No. 7, MSU International Development Working Papers).
SMALL SCALE INDUSTRY/URBAN EMPLOYMENT

Donor: World Bank
Contract No.: Not available
Account No.: 71-4215
Location: Sierra Leone
Duration: July 1976-March 1977
Budget: $45,075

Key MSU Faculty: Carl Liedholm, Director (Agricultural Economics)

Project Goals: To undertake a study involving research and analyses of rural and urban small scale industry in developing countries for the Bank's Transportation and Urban Projects Department and the Development Economics Department.

Project Plans/Objectives:
1. To discern the major features of broad governmental and macro-economic environment that inhibit or encourage productive utilization of resources by the informal/small scale productive sector.
2. To describe market conditions, both on the demand and the supply side, that determine the structure of production and output in the sector, particularly how to determine demand structures, supply constraints, techniques of production, and how factor prices vary with location (rural areas, towns, and cities).
3. To describe and analyze the assistance and extension requirements of small scale entrepreneurs with particular emphasis on management, technical, financial planning, marketing, and other needs.
4. To describe in detail the characteristics, sources, and needs of credit to the sector, particularly with reference to working capital and fixed investment.
5. To describe the employment characteristics and potential of investment in the sector and its implications for overall capital productivity, income, and consumption, with close attention being paid to locational questions.
6. To discuss the various industry groups researched with respect to their absolute and relative economic viability, capacity utilization, choice of and scope for choice of techniques, product quality and factor substitution, and how these are affected by location.

Location of Documentation: Some documents are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator; additional information can be obtained from H. Riley (Agricultural Economics).

Project Summary Comment: Findings from this study have been published by the Agricultural Economics Department and are available in the Agricultural Economics Project Office, 7 Agriculture Hall.
Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from FAO and UNDP

Contract No.: MUCIA contract DP/SOM/72-014-1/AGOA, with Ohio State University as Lead Institution

Account No.: 71-4206

Location: Somalia

Duration: January 1976-December 1979

Budget: $1,141,323 (MUCIA), $39,590 (MSU share)

Key MSU Faculty: Irving Wyeth (Institute of International Agriculture); E. Everson (Crop & Soil Science); W. Herzog (International Studies & Programs)

Project Goals: To assist the Government of Somalia in strengthening the Central Agricultural Research Station and Training Centres through the development of research projects and staff.

Project Plans/Objectives:
1. To train Ministry of Agriculture personnel in the organization and operation of agricultural experiment stations.
2. To conduct training and research with emphasis on the aspects of crops and soils related to food production, weed control, irrigation, water management, farm management, entomology, cropping systems, plant pathology, and horticulture.

Cooperating Institutions: Ministry of Agriculture of Somalia; Ohio State University

Location of Documentation: A brief project description can be found in the 1983 MUCIA Treasurer's Report located in the office of the Dean of International Studies and Programs, 209 Center for International Programs.

Project Summary Comment: MSU participation in this project was limited to short-term consulting activities. The project was hampered by political upheaval in the country and the war it was engaged in with Ethiopia.
STRATEGIES FOR STRENGTHENING INTERNATIONAL ASPECTS OF TEACHER EDUCATION

Donor: U.S. Department of Education (Title VI)
Contract No.: G-0084-00287
Account No.: 71-0235
Location: MSU campus
Duration: August 1984-July 1986
Budget: $80,500

Key MSU Faculty: J. Schwille, Co-Director (Teacher Education); R. Navarro, Co-Director (Teacher Education); M. Crofts (African Studies Center); J. Alleman-Brooks, D. Campbell, S. Melnick, J. Buschman, and W. Joyce (Teacher Education)

Project Goals: To develop an international dimension in teacher education at MSU so that increasing numbers of elementary and secondary school teachers will be knowledgeable about international affairs and the implications of international affairs for U.S. schools and U.S. social relations.

Project Plans/Objectives:
1. To revise courses offered within the College of Education, adding content that will contribute both to students' understanding of international studies and their sensitivity to issues of cultural diversity.
2. To provide faculty development for junior and senior faculty members in the College of Education so that they can add international content to their courses where appropriate.
3. To recruit increasing numbers of internationally minded students to major in teacher education.
4. To assess the present level of international knowledge and related attitudes among samples of students and faculty across the College.
5. To develop a teacher educator's guide to international courses offered in other parts of the university with information on the appropriateness of such courses for prospective teachers and ways in which international courses can be integrated into teacher education programs.
6. To use student assessment and the teacher educator's guide to advise students on what to choose outside the College from courses on global issues, foreign area studies, and foreign languages.
7. To show that students and faculty have increased their knowledge of international studies and foreign language by repeated assessment.
8. To make faculty more knowledgeable about education in other countries so that they better understand, by comparison, education in the U.S.
9. To develop a teacher educator's handbook, presentations, and seminars to disseminate results to persons and institutions outside MSU and show how the strategies developed for this project can be applied elsewhere.

Location of Documentation: Information on this project can be obtained from J. Schwille or R. Navarro (Teacher Education).
Project Summary Comment: During the first year of the project several of the above-outlined objectives were achieved through the following activities: courses in Field Practice, Teaching in Heterogeneous Classrooms, Teaching Critical Reading of Children's Literature, Social Studies Within Diverse Classrooms, School and Society, and Exploring Teaching were revised to include an international focus; a preliminary identification of relevant courses for students of teacher education was made; student recruitment and advisement were directed toward minority students and students with international interests; foreign language acquisition was promoted; faculty development seminars were conducted; evaluation activities included developing an evaluation plan, designing and pretesting instruments, and obtaining approval for data collection.
Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the Agency for International Development granted to Development Research (DEVRES) and subcontracted to MUCIA

Contract No.: AFR-0435-C-00-2084-00 (primary AID contract)
Account No.: 71-4002
Location: Senegal, Mauritania, Mali, Chad, Gambia, Cape Verde, Niger, Burkina Faso, Tanzania, Mozambique, Zimbabwe, Zambia, Malawi, Swaziland, Botswana, Lesotho, Angola

Duration: January 1983-February 1984

Budget: $191,724

Key MSU Faculty: Dale Harpstead, Project Leader (Crop & Soil Science)

Project Goals: To provide technical advice and assistance to DEVRES for the purpose of furthering the development of agricultural research in the Sahelian Zone and in Southern Africa.

Project Plans/Objectives: MSU's objectives were:
- To provide the services of specified staff members for the soil, plant, veterinary, rural, social, economic, and other needs of areas of Africa particularly with respect to improving agricultural research results and methods.
- The objectives were designed to fulfill a portion of the activities under the general plan of work agreed to between DEVRES and AID. This plan included the following objectives:
  1. To conduct information reconnaissance visits with governments and principal research entities in each of the countries of the Sahel and Southern Africa.
  2. To organize a convocation of a zonal consultative meeting of African leaders in agricultural research to explore further their interest in CDA and to discuss issues related to priorities, programming, collaborative methodologies, etc.
  3. To take inventories of research facilities, personnel, programs, etc., for each country.
  4. To prepare zonal program documents, PID's, and PPs.

Cooperating Institutions: Ministries of agriculture and agricultural extension agencies in each of the participating countries; University of Minnesota, Ohio State University, University of Wisconsin as members of MUCIA

Location of Documentation: Original agreements are located in the office of the chairman, Crop & Soils Department; country profiles compiled for each of the participating countries are located in the Africana Library and can be examined with the assistance of Ms. Onuma Ezera, Africana Librarian.

Project Summary Comment: Among the accomplishments of the project, 17 country profiles highlighting research on all aspects of the agricultural sector were generated by a team of 15 Africanist graduate students. These provided baseline data for representatives of participating MUCIA universities to go into the field to conduct their reconnaissance visits. Three more specific country profiles were written on Zimbabwe, Zambia, and Lesotho to present information on key issues of interest to DEVRES. A document on Women in Agriculture in the Sahel was also prepared. All of these are available in the Africana Library from Onuma Ezera.
STRENGTHENING OF THE CENTRAL AGRICULTURAL RESEARCH STATION AND REGIONAL RESEARCH STATIONS IN SOMALIA

Donor: Midwestern University Consortium in International Activities (MUCIA) with funds from FAO and UNDP

Contract No.: Ohio State University (Lead Institution) sub-contract to MSU: Ag Res. Proj. 72-014

Account No.: 71-4206

Location: Somalia

Duration: September 1974-December 1979

Budget: $666,850 (MUCIA share)

Key MSU Faculty: E. Everson and Delbert Mokma (Crop & Soil Science)

Project Goals: To assist the Somali staff of the Agricultural Research Institute in implementing a balanced program of research projects that will be relevant to the needs of Somali agricultural producers, be feasible under Afgoi and related research facilities and equipment, be appropriate in light of world scientific agricultural knowledge, and represent sound scholarship and research design and analysis; to help develop a Somali agricultural research staff that will maintain, continue, and expand research programs.

Cooperating Institutions: FAO, UNDP, Ministry of Agriculture, State Planning Commission, University of Somalia, Central Agricultural Research Station, Soils Laboratory, Bonka Research Station, World Bank, AID

Location of Documentation: Reports by consultants in agronomy, plant breeding, horticulture, and economic entomology as well as project evaluations can be obtained from E. Everson (Crop & Soil Science).

Project Summary Comment: An initial survey of the institutions involved in this project in Somalia was undertaken in 1974 prior to the MUCIA decision to submit a proposal. MUCIA designated Ohio State University as the lead institution, and MSU was subcontracted for the services of E. Everson and D. Mokma. Their participation was on a short-term basis, with Everson performing several consulting services in agronomy-plant breeding in 1976 and 1977, and Mokma contributing in 1978 in the area of soil classification. The project met with a number of problems, due largely to the on-going war with Ethiopia and the lack of good communication between the Research Station and the capital, Mogadishu. The evaluation indicates that project activities were continued by FAO and UNDP to the extent possible under difficult political conditions.
SUMMER ENGLISH LANGUAGE TRAINING FOR JAPANESE UNDERGRADUATES, TEACHERS, AND OTHER PROFESSIONALS

Donor: 1. English Language Educational Council (ELEC)  
2. International Student Advisors/English Language Educational Council (ISA/ELEC)  
3. Mie University  
4. Dokkyo University

Contract No.: Varies annually and with institution  
Account No.: Varies annually and with institution  
Location: MSU campus


Budget: Between $17,000-$35,000 per program depending on number of participants

Key MSU Faculty: M. Williams, Director (English Language Center)

Project Goals: To provide intensive English language instruction and lessons in American culture.

Project Plans/Objectives:  
1. To provide a maximum of opportunities for the participants to improve their aural/oral skills in English.  
2. To provide a variety of effective teaching models.  
3. To introduce participants to a cross-sectional sample of Americans and American life, and to increase their understanding of American culture.  
4. To provide teacher training in methods to relevant groups.

Cooperating Institutions: English Language Educational Council, Dokkyo University, Mie University

Location of Documentation: Contracts, program descriptions, and information on student homestays is located in the English Language Center.

Project Summary Comment: During the students' instructional period at MSU, they are provided the opportunity, through the activities of the Community Volunteers office, of staying in the homes of American families. The students have commented that this is one of the high points of their stay in the U.S. English language instruction is conducted between three and four hours per day, and cultural activities are arranged for the remainder of the day.
Donor:                           Agency for International Development
Contract No.:                   AIDc-1405
Account No.:                    71-2026
Location:                       Taiwan
Duration:                       July 1960-July 1964
Budget:                         $775,670

Key MSU Faculty: Maurice Perkins, Coordinator; Howard McColly, Chief of Party (Agricultural Engineering); Merle Esmay, Chief of Party (Agricultural Engineering); Irving Wyeth (Institute of International Agriculture); C. Wright (Agricultural Economics); T. Stevens (Forestry); C. Harrison (Crop & Soil Science); C. Lyle (Entomology); J. C. Ferver (Agricultural Extension); D. Meaders and T. R. Buie (Agricultural Education); E. Miller (Animal Husbandry); R. Cook (Crop & Soil Science).

Project Goals: To assist in the development and strengthening of agricultural education (including instruction, extension, and research) at both National Taiwan University (NTU) (Taipei) and Taiwan Provincial College of Agriculture (TPCHU) (Taichung); to assist these institutions in their total development; to broaden the role of the colleges of agriculture to include active participation in extension and applied research along with teaching; to provide adequately trained vocational agriculture teachers, supervisors, technicians, and farm leaders.

Project Plans/Objectives:
1. To assist in the improvement of administrative organization and procedures.
2. To assist in the development and improvement of curricula, course content, instructional materials, and teaching methods and procedures.
3. To assist in the development of coordinated agricultural research programs.
4. To assist in the development of coordinated agricultural extension programs.
5. To assist in the planning for and procurement, utilization, and maintenance of agricultural education equipment and materials.
6. To assist in the selection of participants for observational and/or academic training programs in the U.S.

Cooperating Institutions: National Taiwan University and Provincial College of Agriculture, Taiwan

Location of documentation: Final reports written by MSU faculty are located in University Archives and Special Collections, Main Library.

Project Summary Comment: Several achievements were obtained during the course of the four-year project: 1) a soil survey of all of the agricultural lands of Taiwan was initiated; 2) curricula were improved in all departments; 3) surveys of the graduates of the colleges of agriculture at NTU and TPCHU and of vocational agriculture schools were conducted; 4) consultation was provided in public extension, livestock development, soil surveys and classification, mechanization, land preparation and reclamation, forestry utilization, and research; 5) in-service training courses, seminars, and summer school were sponsored; 6) faculty members were given advanced training at MSU; 7) new subject matter courses in beekeeping and honey production were developed; 8) a research program related to the applied problems of the livestock industry in Taiwan was developed; 9) new departmental
building facilities were constructed; 10) consultation was provided for a study by the Ministry of Education on the "Future Role of the Senior Colleges of Agriculture of Taiwan"; and 11) an experimental extension specialist project was formulated for Chung Hsing University College of Agriculture

Overall, the project featured the introduction of a number of innovative educational programs oriented to Taiwan's needs and designed to strengthen academic programs, to establish linkages between the colleges' academic faculty and critical problems facing Taiwan's agriculture and rural life, and to establish and develop unique cooperative relationships, on and off campus, with public and private sector agencies and programs.

A strong linkage between these universities and MSU is maintained through the efforts of D. Meaders (Agricultural Education) who continues to conduct programs in agricultural education in Taiwan for both American and Taiwanese students, and through the exchange of MSU and University of Taiwan faculty.
THAILAND EDUCATIONAL PLANNING

Donor: Agency for International Development
Contract No.: AID/TE-105
Account No.: 71-2043
Location: Thailand
Duration: September 1964-August 1968
Budget: Not available

Key MSU Faculty: Cole Brembeck, Campus Coordinator (Institute for International Studies in Education); Stanley Wronski, Campus Coordinator (Administration & Curriculum); Raymond Hatch, Chief of Party (Counseling); D. Heenan (Institute of International Studies in Education); K. Neff (Teacher Education)

Project Goals: To provide assistance in strengthening the capacity of the Ministry of Education and the National Education Council in both short- and long-range education planning, and to advise on action plans that have been adapted as educational policy in Thailand.

Project Plans/Objectives:
1. To develop relevant agencies for planning at all levels of the educational system.
2. To define purposes and programs.
3. To conduct research studies.
4. To train educational planners and administrators of plans.
5. To evaluate plans and programs.
6. To implement appropriate manpower plans and policies in education.

Cooperating Institutions: Thailand Ministry of Education and the National Education Council

Location of Documentation: The first and second semi-annual reports and miscellaneous project documents are located in University Archives and Special Collections, Main Library.

Project Summary Comment: The MSU Thailand Project was begun in the Fall of 1964 to assist Thailand's Ministry of Education and National Education Council in both short- and long-range educational planning. Nearly forty MSU faculty members served as advisors and consultants in formulating Thailand's educational policy. These faculty members worked principally through two Thai government agencies: The National Education Council (NEC) and The Education Planning Office (EPO). The NEC operated as a planning agency working closely with Thai universities and higher education generally. This involved the implementation of programs such as vocational training and seminars, as well as the starting of a data bank that furnished information related to education to aid NEC in reaching appropriate solutions. The EPO provided assistance to education at the secondary level and in the development and promotion of planning in rural areas. The Institute for International Studies in Education on the MSU campus acted as coordinator of the project. Its duties included the organization and recruitment of project consultants, the formation of a backup team to provide base support and to receive various tour groups of Thai educators who were sent to observe educational processes in this country. MSU's involvement in the project ended in August 1968 when Thai officials assumed complete control over the educational programs.
THAILAND REVIEW OF AGRICULTURAL EDUCATION, RESEARCH, AND EXTENSION PROGRAMS

Donor: Midwestern Universities Consortium for International Activities (MUCIA) with funds from the World Bank

Contract No.: Not available
Account No.: 71-3482
Location: Thailand
Duration: February 1974-December 1974
Budget: $48,612

Key MSU Faculty: William Drew, Field Team Leader (Botany & Plant Pathology); G. Axinn (Agricultural Economics); B. Paolucci (Family Ecology); P. Tack (Fisheries); W. Stout (Agricultural Engineering); L. James (Forestry).

Project Goals: To assist Thailand plan its programs for improving institutions and agencies related to agriculture, veterinary education, research, and extension through an assessment of present needs and adequacies in these fields; to provide to the World Bank a basic document upon which the Bank might base its loans to Thailand to help the country strengthen these fields of endeavor.

Cooperating Institutions: Ministry of Agriculture and Cooperatives, Thailand; MUCIA

Location of Documentation: Documents on this project are stored in the Office of the Dean of International Studies and Programs, 209 Center for International Programs.
TITLE XII STRENGTHENING GRANT

Donor: Agency for International Development
Contract No.: AID/DSAN/XII-G-0126
Account No.: 71-1991
Location: MSU Campus, Worldwide
Duration: October 1979-October 1985 (renewable annually)
Budget: $1,800,000 ($300,000 per year)

Key MSU Faculty: Paul Roberts, Administrator (Institute of International Agriculture)

Project Goals: To further develop MSU as a center of excellence for the training of foreign and domestic graduate students preparing for professional careers directed toward the improvement of conditions in developing countries; to contribute to the development of more adequate food systems, the development and maintenance of natural resources, and the improvement of human conditions in developing countries through collaborative applied research, advisory services, educational programs, and assistance in the building of indigenous institutional capabilities within developing countries; to strengthen MSU's capacity to serve its domestic clientele through the use of scientific knowledge and understanding of other cultures acquired by faculty involvement in international research and educational programs.

Project Plans/Objectives:
1. To expand and sustain MSU's faculty resource base on a stable, long-term basis to be more responsive to the needs of developing countries through participating in Title XII programs, including concern for core faculty with career commitments to international development, other faculty and staff who have international interests that are compatible with other MSU responsibilities, and graduate students.
2. To strengthen MSU's administrative support and coordination capacity through the Institute of International Agriculture, the unit responsible for coordinating all international activities of the College of Agriculture and Natural Resources and University-wide Title XII programs.
3. To facilitate the further development of faculty and staff competencies that will enhance their performance in international programs oriented primarily to the poorest nations of Africa, Asia, and Latin America.
4. To provide travel opportunities and support services to faculty, staff, and graduate students, including the establishment of institutional linkages with developing countries, such linkages to foster mutually beneficial collaboration; facilitating and stimulating project development; the utilization of resource data and experience; and the provision of opportunities for selected faculty and staff without former overseas experience to gain cross-cultural living experience.

Cooperating Institutions: Appropriate ministries in developing countries; various institutes and departments on the MSU campus
Location of Documentation: Annual reports can be obtained from P. Roberts, Institute of International Agriculture, 118 Agriculture Hall.

Project Summary Comment: No fewer than 21 different units on the MSU campus have received Title XII funding since the inception of the program in 1979. A summary of the goals, activities, and funding received by these units over the five-year history of the program is presented below. Not all information for 1979-80 is presented due to changes in reporting procedures (i.e., allocated funds were reported in accordance with goals rather than units receiving funding). The summary presents data from earliest times to the present in order that the reader can discern the development of activities over the years.
<table>
<thead>
<tr>
<th>Units and Goals</th>
<th>Activities</th>
<th>Title XII Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. CROP AND SOIL SCIENCES</td>
<td></td>
<td>$12,582.96</td>
</tr>
<tr>
<td>A. Develop master's degree curriculum in general agronomy for students from developing nations</td>
<td>1. Specific graduate programs for master's candidates which would provide selected students from developing nations with a broad crop production/management educational experience are being organized. A departmental committee has been established to formulate plans for a master's degree program for &quot;General Agronomist&quot;.</td>
<td></td>
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<tr>
<td>B. Encourage American and African Sahelian graduate student collaboration on relevant research programs</td>
<td>2. An abstract of graduate degree requirements and expectations was translated into French and Spanish, Spring 1980.</td>
<td></td>
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<tr>
<td>C. Develop teaching and research programs which would complement current international projects in the Department of Agricultural Economics in the Sahelian region of Africa</td>
<td>3. Two staff members from the department visited educational institutions in Upper Volta and Senegal in order to establish collaborative linkages and to identify needs of foreign students in a general agronomy degree program.</td>
<td></td>
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<tr>
<td>D. Strengthen the knowledge and information base of department faculty and students about tropical soils and crops</td>
<td>4. During the Summer term 1980 a special problem course was taught which had been designed specifically for students from developing countries.</td>
<td></td>
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<tr>
<td>E. Design in-the-field-study programs to imitate &quot;farming systems&quot; approach to analyzing problems of development</td>
<td></td>
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<tr>
<td>F. Developed a multidisciplinary course combining expertise in Crop Sciences and Agricultural Economics in examining problems of development in developing countries</td>
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<tr>
<td>G. Develop abilities of other faculty in the College of Agriculture and Natural Resources to utilize</td>
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<tr>
<td>1980-81</td>
<td></td>
<td>$10,305.08</td>
</tr>
<tr>
<td>1. Offered two new multidisciplinary courses geared to the needs of developing African countries facing problems that may be resolved by a &quot;farming systems&quot; approach; courses were coordinated by a faculty member from Ethiopia.</td>
<td>2. Participated in farming systems seminars with members from the Department of Agricultural Economics and other related agricultural disciplines.</td>
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<tr>
<td>1981-82</td>
<td></td>
<td>$20,039.02</td>
</tr>
<tr>
<td>1. Selected Dr. Russell Freed to be responsible for international activities in department.</td>
<td>2. Participated in a summer institute with Agricultural Economics to teach graduate students the basics of farming systems research.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Served as a member of a group developing a handbook</td>
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</tbody>
</table>
Units and Goals

microcomputers in developing countries

H. Develop a microcomputer software program to be used in developing countries

I. Design workshop material on a microcomputer software program (MSTAT) to teach participants from developing countries

J. Adaptation and strengthening of tenure-stream faculty member in international position

Activities

for the organization and management of agricultural research.

4. Developed a 2-week short course using the microcomputer to organize agricultural research.

5. Served as a consultant to AID for a project paper on Farming Systems Research and Extension project.

6. Participated in an evaluation team for an AID project involving CARDI's small-farm multiple cropping systems research project.

1982-83

1. Participation in a project paper team in Mali to develop a subproject under the USAID-sponsored Farming Systems Support Project (FSSP) directed by the University of Florida.

2. Planned and directed a farming systems workshop at the MSU Biological Station. This workshop was funded by the University of Florida FSSP and was attended by individuals from AID, other U.S. universities, MSU and individuals from developing countries.

3. Translated the microcomputer software program (MSTAT) into Spanish and French for use in developing countries.

4. Developed a user's guide for the MSTAT system and two plant breeding programs for large and small programs.

5. Demonstrated MSTAT to AID personnel in Washington to identify project applications worldwide.

6. Participated in an AID evaluation of an integrated cereal project in Nepal.

1983-84

1. Two week MSTAT workshop in March 1984 at MSU for participants on three USAID projects (Senegal, Malawi, and Ecuador).

2. Twenty-two participants from various bean/cowpea CRSP projects attended a one-week MSTAT workshop at MSU in August 1984.

3. MSTAT workshops were also sponsored by AID in Zimbabwe and Malawi and an MSTAT workshop was given to 30 participants at the International Rice Research Institute.

Title XII Funds

Expended

$46,871.38

$34,300.23
### Units and Goals

**II. HORTICULTURE**

**A.** Establish professional contacts with international institutions to develop long-term collaboration

**B.** Plan and conduct research on small-plot agricultural systems appropriate for small-farmer agriculture in developing countries

**C.** Plan and conduct summer seminars to discuss research findings and identify collaborative opportunities

**D.** Study intercropping effects of small farming systems with particular emphasis on hexagonal planting patterns

**E.** Develop courses on tropical horticulture and farming systems

**F.** Improve the quality of horticulture graduate education for students from developing countries

**G.** To develop and teach technical courses on tropical horticulture and to create an awareness in U.S. students about horticulture's role in LDC farming systems in developing countries

**H.** Develop the abilities of a faculty member hired into an international

### Activities

<table>
<thead>
<tr>
<th>Year</th>
<th>Activities</th>
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</thead>
</table>
| 1979-80 | 1. Developed a computer modeling of responses of vegetables in a series of intercropping (horticultural) systems.  
2. MSU faculty member visited ICRISAT, IRRI, and Asian Vegetable Research Development Center in Spring 1980 to identify areas of mutual interest and to gain insights and information on ways to more effectively research small farmers.  
3. Faculty member traveled to Honduras, Costa Rica, and Ecuador in order to establish collaborative linkages with selected institutions. Proposal was submitted to sponsor Central American educator on Fulbright Program at MSU.  
4. New course in tropical fruit was developed and introduced into Department curriculum with over 25 students enrolled.  
5. Three faculty members received extensive Spanish language training.  
6. Graduate student did research on hexagonal planting patterns for adoption in developing countries.  
7. Six faculty members and one graduate assistant contributed to this Strengthening Grant effort. |
|         | **Title XII Funds Expended**                                               |
|         | $7,581.26                                                                |
| 1980-81 | 1. Study on hexagonal intercropping completed by graduate student who then took a position in Malawi under a University of Florida contract.  
2. Course in Tropical Fruit offered during Spring quarter 1981. |
|         | **Title XII Funds Expended**                                               |
|         | $6,853.83                                                                |
| 1981-82 | 1. Five seminars were developed and presented on "Horticulture's Role in Third World Development".  
2. Course on tropical fruits was developed and taught in Spring 1982. |
|         | **Title XII Funds Expended**                                               |
|         | $20,958.73                                                               |
Units and Goals

Tenure stream position to coordinate international activities

I. Increase the Department's international activities in teaching, research, and extension

Activities

3. Course in tropical vegetables was developed and will be taught in 1983.
4. An international horticulture documentation center was developed to collect materials related to topics on horticulture in developing countries.
5. A memorandum of understanding between MSU and the Asian Vegetable Research and Development Center in Taiwan providing for future collaboration was developed and signed.
6. More than 100 graduate international alumni from developing countries were surveyed to help improve graduate training programs and to re-establish professional linkages. Development of bilateral collaborative research projects with alumni and their colleagues in AID projects is anticipated.

1982-83

1. Completed a study of graduate training and professional experiences of the department's international alumni.
2. Presented seven seminars or guest lectures to universities, extension service and general audiences on horticulture in developing countries.
3. Developed a "Handbook of Tropical Vegetables" used at the International Integrated Pest Management short course at Purdue.
4. Presentation made at National WIC Conference on "The Role of Home Gardens in Rural and Suburban Family Nutrition".
5. Participated in the Farming Systems Support Project (FSSP) short course at the University of Florida and presented a similar course at the MSU Kellogg Biological Station.

1983-84

1. Faculty member, Dr. Robert Herter, agreed to begin an 18 month assignment at the University of Zimbabwe as part of the USAID Faculty of Agriculture Expansion project.
2. Increased the department's collection of tropical

Title XII Funds

Expended

$21,824.11

$10,308.47
Units and Goals

Activities

reference materials by 50% in the last year, including books, fugitive reports, extensive slide collections, and live specimens of tropical fruits and vegetables.

3. Dr. H.C. Bittenbender was co-author of a publication "Michigan Agriculture and its Linkages to Developing Nations".

4. A course on tropical fruits and spices (HRT 461) was developed and taught.

5. *Handbook of Tropical Fruits and Spices* was written by Dr. H.C. Bittenbender and published by the Department.

III. COOPERATIVE EXTENSION INTERNATIONAL EXTENSION TRAINING

1979-80

1. Created a new half-time position as Project Coordinator with State appropriated funds to select, organize, and train extension individuals who will be available for work in developing countries.

2. Appointed a half-time graduate assistant to help with project.

3. Appointed a Project Committee of eight staff members to set policy and guidelines.

4. Established a Program Task Force of 20 individuals to provide suggestions and give direction to Extension activities to participate in this program.

5. Extension supervisor attended the Associated Country Women of the World Conference in Germany in May 1980 to identify needs and develop methodology with which Extension can incorporate women's needs into the training program.

6. Two-week field training experience was conducted in Belize and Costa Rica for the program participants. Six spouses under their own funding accompanied the participants on this training experience.

7. Numerous meetings have been conducted throughout Michigan to educate Extension clientele to the need...
### Units and Goals

for greater international involvement. Several thousand people have attended meetings, others have been informed through newsletters, radio talk shows, newspaper columns, etc.

8. Two faculty members, 15 University and field staff members, one graduate student, and one clerical staff member participated in this Extension strengthening grant project during the first year.

9. An attempt was made to establish one or two-month externship opportunities for selected individuals who completed the first year's program. Contacts were made with various ongoing AID projects.

10. A second year program was initiated with 14 new participants. Arrangements were made to conduct the field training in Jamaica.

### Activities

**1980-81**

1. Conducted a series of (5) two-day workshops for 15 selected Extension personnel to prepare them for future participation in AID Title XII overseas projects.

2. Sponsored a two-week overseas training experience in Jamaica for Extension personnel being trained for international work.

3. Conducted numerous meetings, presentations, workshops, etc. with members of the Michigan agricultural sector explaining the international training program and increasing statewide support for developmental efforts.

4. Institutionalized an international dimension in Cooperative Extension in order to be more responsive to AID opportunities for international project opportunities.

**1981-82**

1. Conducted a series of five two-day workshops for 13 selected Extension personnel to prepare them for future participation in AID Title XII overseas projects.

### Title XII Funds

<table>
<thead>
<tr>
<th>Year</th>
<th>Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>$27,994.56</td>
</tr>
<tr>
<td>1981-82</td>
<td>$40,768.72</td>
</tr>
<tr>
<td>Units and Goals</td>
<td>Activities</td>
</tr>
<tr>
<td>----------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>2. Sponsored a two-week overseas training experience in Belize for Extension personnel being trained for international work.</td>
</tr>
<tr>
<td></td>
<td>3. Conducted numerous meetings, presentations, workshops, etc. with members of the Michigan Agricultural community explaining the international training program and increasing statewide support for development efforts.</td>
</tr>
<tr>
<td></td>
<td>4. Formalized an international dimension in Cooperative Extension in order to be more responsible to AID opportunities for international project work.</td>
</tr>
<tr>
<td>1982-83</td>
<td>1. Offered three-part workshop on &quot;Integrating an International Dimension into Cooperative Extension Programs&quot; to 38 Extension personnel.</td>
</tr>
<tr>
<td></td>
<td>2. Held two conferences on Farming Systems Research and Extension. These conferences were designed to familiarize staff with the Florida FSSP model.</td>
</tr>
<tr>
<td></td>
<td>3. Extension training program staff worked with a university committee to sponsor a statewide conference on Michigan's links with developing countries.</td>
</tr>
<tr>
<td></td>
<td>4. Sponsored four one-month externship assignments in the Caribbean Basin to extend the skills of past trainees working in a development setting while providing technical assistance.</td>
</tr>
<tr>
<td></td>
<td>5. Worked with Partners of the Americas on a grant from the Development Education Program of USAID &quot;Feeding the World: International Interdependence&quot;.</td>
</tr>
<tr>
<td></td>
<td>6. Assisted in the Development of a resource guide on Michigan and World Trade--background information for discussing complex food issues with clientele groups.</td>
</tr>
<tr>
<td>1983-84</td>
<td>1. Fourth group of International Extension Training participants was formed to develop an understanding of various strategies for rural development.</td>
</tr>
<tr>
<td></td>
<td>2. Began preparation for a National Conference on the &quot;International Role of Extension&quot;, with participation</td>
</tr>
</tbody>
</table>
Units and Goals

Activities

from officials in AID, BIFAD, NASULGC and other organizations.

3. Two of the Extension Training trainees participated in externships, one in Montserrat and another in Dominica.


Title XII Funds

Expended

IV. WOMEN IN INTERNATIONAL DEVELOPMENT

1979-80

1. Developed a set of long range program objectives and organizational bylaws to guide the Women in International Development Committee and its office.

2. Hired a half-time faculty office coordinator to build a program with necessary resources and organization to fulfill its objectives. Devoted considerable effort to language training and international experience for this young faculty member.


5. Acquired materials to develop its own library concerning women in international development.

6. Identified courses and personnel at MSU with interests in subject matter related to women in international development.

7. Research, project advisement, education, library, and curriculum task forces were established.

8. The WID Office was awarded a $5,000 NUCIA project development grant to design a collaborative project to study women's economic activities.
### Units and Goals

| H. | Build WID-related curricular offerings, education and training |
| I. | Encourage WID-sensitive development research |
| J. | Develop a useful mechanism for advising development projects on the inclusion of a WID component |

### Activities

9. Several faculty seminars on Women in International Development were held, utilizing both MSU and outside personnel. Some of the subjects included:
   - "Kenyan Women in Development," Dr. Kathleen Stout, University of Texas, El Paso
   - "Women and World Development," Perdita Houston, Director, Peace Corps, North Africa
   - "Women in Rural Development in Mali," Mariam N'Diaye Thiam and Susan Coughman, American Friends Service Committee

10. An office of Women in Development Newsletter began publication in 1980.

11. Research agenda for WID-related project opportunities for graduate students and faculty was compiled to expose researchers to potential projects.

12. Developed a training project, funded by the Ford Foundation, to prepare international students at MSU for leadership in international development. The project included:
   - a) curriculum development through faculty leadership providing release time for faculty to develop WID courses
   - b) supporting research and administrative internships through awarding stipends on a competitive basis
   - c) offering intensive WID training sessions that will prepare people to develop gender-sensitive international projects and programs.

### 1980-81

1. Organized and supported task group meetings in project advisement, curriculum, research, and publications.
2. Establishment of a working paper series which is distributed both nationally and internationally.
3. Established a Women in International Development Reading Room.
4. Continued communication with HUCIA/WID, with WID programs at other universities, and appropriate national and international agencies.
5. Publication and distribution of quarterly WID newsletter.

### Title XII Funds

<table>
<thead>
<tr>
<th>Expended</th>
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</thead>
<tbody>
<tr>
<td>$17,739.24</td>
</tr>
</tbody>
</table>
Units and Goals

**Activities**

**1981-82**

1. Organized a project advisement structure and research discussion groups to explore agricultural research project impacts.
2. Maximized WID contributions to Bean/Cowpea CRSP activities. CRSP has two project assistants working out of the WID Office and has a WID component built into the Malawi CRSP.
4. Published and distributed a quarterly WID newsletter to help increase awareness of the importance of WID issues and its role in development.

**1982-83**

1. Evaluated all USAID development projects for possible inclusion of WID component in project design.
2. Conducted Project Advisement Task Force meetings to prepare new faculty and graduate students to work on international projects.
3. Developed Series of working papers on WID-related topics and distributed these papers to AID personnel, project officers, and other U.S. institutions.
4. New director of MSU/WID office participated in Bean/Cowpea CRSP Malawi project as co-investigator. Two project assistants for this project have dual appointments with the WID office.
5. Published and distributed quarterly newsletter to increase awareness of the importance of WID issues in the development process.

**1983-84**

1. Evaluated USAID Development Projects for possible inclusion of WID component in project design.
2. Continuation of core program activities such as the WID publication series, the project advisement task force, the seminar series, and study groups.
3. Continuation of quarterly newsletter to increase awareness of WID issues in the development process.

**Title XII Funds**

<table>
<thead>
<tr>
<th>Expended</th>
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<tbody>
<tr>
<td>$41,999.53</td>
</tr>
<tr>
<td>$42,039.94</td>
</tr>
<tr>
<td>$36,724.28</td>
</tr>
</tbody>
</table>
Units and Goals

V. ANIMAL SCIENCE

A. Expand staff capability for developing technology and management systems as they relate to the small farm unit

B. Develop new linkages where animal nutrition/management/utilization experience can be effectively transferred

C. Develop a collaborative arrangement with the Caribbean Agricultural and Development Institute (CARDI) to establish a support unit for the animal sciences

D. To develop a "core" of graduate students who can become involved in the development field sector

Design a course in tropical animal husbandry and medicine that emphasizes the present state of the livestock industry and veterinary medicine in developing countries

Develop teaching aids on specific subjects for use in the above-mentioned course and for exchange with other teaching institutions

Activities

1979-80

1. Selected topics for course included:
   a) major nutritional and disease constraints on animal production in the tropics
   b) livestock production systems
   c) integration of livestock production and arable farming
   d) nomadism
   e) role of women in livestock enterprises
   f) trypanosomiasis and the socio-economic and ecological consequences

2. Collected teaching materials and ordered necessary audio-visual equipment.

3. Made contacts with foreign scholars and facilities for exchange of materials.

4. Four faculty members and one clerical staff person participated in this strengthening grant project.

5. Two graduate students assisted in curricular development in international animal husbandry by incorporating their overseas field experience into a course on animal production systems. They prepared and presented slides, graphics, and other visual aids which contributed greatly to the value of the course.

6. During Spring term 1980 one graduate student assisted in developing alternative feed supply systems and testing demonstration/field evaluation techniques for newly-developed feed ration. This actively took place in Belize.

7. Two faculty members traveled to Trinidad in April 1980 to explore potential collaboration with the Caribbean Agricultural Research and Development Institute (CARDI). A cooperative working agreement with CARDI has been worked out.

8. Two faculty members, three graduate students and one clerical staff member were engaged in strengthening grant activities.

Title XII Funds

Expended

$17,782.60
<table>
<thead>
<tr>
<th>Units and Goals</th>
<th>Activities</th>
<th>Title XII Funds Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Develop relevant animal production/utilization systems for indigenous environments</td>
<td>1. Developed field linkages where the animal nutrition/utilization experience can be effectively transferred.</td>
<td>$26,441.54</td>
</tr>
<tr>
<td>H. Focus on applied problems of cattle production in the tropics with special emphasis on soil-plant-animal interrelationships of needed minerals in cattle</td>
<td>2. Developed a collaborative Agreement with the Caribbean Agricultural Research and Development Institute (CARDI) in Barbados. Involved the development of feeding and management programs for small livestock farmers utilizing locally available feedstuffs.</td>
<td></td>
</tr>
<tr>
<td>I. Develop assay techniques to determine the biological feeding value of animal wastes for use in the Caribbean Agricultural Research Development Institute (CARDI) AID project</td>
<td>3. Developed faculty and young staff who can participate in the USAID farming systems research program with CARDI (The Caribbean Agricultural Research Institute).</td>
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<tr>
<td>J. Develop a technique to determine the digestibility of proteins from feedstuffs which are of an unusual nature</td>
<td>1981-82</td>
<td></td>
</tr>
<tr>
<td>K. Develop and modify a technology of heating and drying that can enhance animal digestibility of unusual feedstuffs</td>
<td>1. Developed an operational solar dryer for fish waste and worked on an assay technique to appraise the feeding value of fish meal.</td>
<td>$10,560.49</td>
</tr>
<tr>
<td>L. To form a methodology for small-scale swine farming systems research</td>
<td>2. Interacted with members of the USAID farming systems research program with CARDI to plan livestock feed development program for the Windward Islands small farm systems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Modified solar dryer and obtained drying coefficient data on banana.</td>
<td></td>
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<tr>
<td></td>
<td>3. Developed a plan for small farm swine systems research.</td>
<td></td>
</tr>
<tr>
<td>1983-84</td>
<td>1. Developed an assay technique to measure protein digestibility of Belizean rice mill feed and mustard seed cake from Nepal.</td>
<td>$9,490.00</td>
</tr>
<tr>
<td></td>
<td>2. Completed a prototype drying/heating unit which will facilitate the study of various moisture and temperature treatments on digestibility of by-product feeds.</td>
<td></td>
</tr>
</tbody>
</table>
VI. RESOURCE DEVELOPMENT

A. To strengthen MSU participation in the Comprehensive Resource Inventory and Evaluation System (CRIES) sponsored by AID by carrying out support research activities; building continuing ties with academic institutions in countries where we are working; providing time for faculty to evaluate country projects and to follow-up with host countries after the completion of AID-sponsored activities; and training individuals for involvement in the design and planning of remote sensing projects.

B. Evaluate multi-disciplinary oriented resource assessment as practiced by various international institutions involved in development programs.

C. Develop a strategy for adapting resource inventory analysis programs in a developing country context.

Activities

3. Study of small scale swine farms in Belize with the goal of developing a model for farming systems research with such livestock units.

1979-80

1. Developed an integrated system--involving remote sensing, computer-based information systems, and quantitative analytical techniques--for specific country projects and the training of host country personnel in use of the techniques.

2. Coordinated technical evaluation with a CRIES project systems review, with a report being developed under an MSU Agricultural Experiment Station project and with activities of the Resource Systems Group.

3. Performed a social-cultural-political evaluation reference to specific country goals and objectives of U.S. foreign assistance programs which have sponsored our activities to date.

4. Staff members traveled to Costa Rica and the Dominican Republic to examine ways of utilizing the knowledge gained in the MSU-USDA CRIES project. Efforts are continuing to establish collaborative relationships with other institutions interested in remote sensing activities.

1980-81

1. Collaboration of individual project staff with counterparts in the completion of workshop materials dealing with procedures used in the Comprehensive Resource Inventory Evaluation System (CRIES).

2. Provide faculty time for input in AID project design in the Dominican Republic and Honduras.

1981-82

1. Completion of workshop material dealing with the procedures used in CRIES activities such as remote

Title XII Funds

Expended

1979-80

$28,127.68

1980-81

$15,053.29

1981-82

$12,915
### Units and Goals

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<tr>
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<tbody>
<tr>
<td>D.</td>
<td>Provide further training capability at MSU relating to remote sensing and cartography</td>
</tr>
<tr>
<td>E.</td>
<td>Hire and develop capabilities of a young faculty member in an international position to incorporate an international dimension in teaching, research, and public service</td>
</tr>
<tr>
<td>F.</td>
<td>Help prepare user documentation for the comprehensive resource inventory and evaluation system (CRIES) computer capability</td>
</tr>
<tr>
<td>G.</td>
<td>Develop appropriate systems software for microcomputers to use in international training workshops</td>
</tr>
</tbody>
</table>

### Activities

- Sensing-based resource inventories resource database development, information systems, and applied economic analysis for use in other related situations.

2. MSU, jointly with Ohio State University, was awarded the AID contract for Natural Resource management in the Dominican Republic. Staff members to be involved in this project have been examining the methods of transferring knowledge and techniques gained in the CRIES project which will be directly related to the Resource Management project.

1. International position created and filled by Dr. G. Schultink who is also campus coordinator for the Dominican Republic Natural Resource Management Project.

2. Prepared and conducted a three-month intensive training course for four Dominican counterparts. The training course was designed to develop technical skills to interpret land cover/use patterns and to design a set of thematic maps.

3. Upgraded the skills of Dr. Scott Witter, Research Associate, for training individuals from developing countries in the interpretation and use of land use maps generated by the Comprehensive Resource Inventory Evaluation Systems (CRIES) Project.

#### Title XII Funds

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<thead>
<tr>
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<th>Expended</th>
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<tbody>
<tr>
<td>1982-83</td>
<td>$10,686.36</td>
</tr>
</tbody>
</table>

1. Developed new project papers to incorporate the multi-disciplinary comprehensive approach to project design for CRIES applications in on-going projects.

2. Prepared user documentation for the CRIES system installed in the Dominican Republic for use by staff of the Secretariat of Natural Resources.

3. Developed software to address aspects of suitability assessment for the production potential of the agriculture and forestry section.

| 1983-84 | $30,004.94 |

227
## VII. NON-FORMAL EDUCATION CENTER

**A.** To provide information to individuals involved with food and agriculture in developing countries

**B.** To produce and distribute practical materials that highlight current resources focusing on education and agricultural development throughout the world

### Activities

| 1983-84 | 1. Completed two annotated bibliographies related to famine and agriculture in the developing world:  
2) Non-Formal Education and the Use and Management of Water Resources |
| 2. Increased library holdings by adding over 100 new documents related to food and agriculture. |
| 3. Worked with the Bean/Cowpea Management Office on a document entitled "Women in Agriculture: Cameroon Resource Guide". |
| 4. Provided a workshop on the relationship between access to information and development for participants in the Cooperative Extension International Training Program. |

### Title XII Funds

| Expended | $9,902.48 |

## VIII. AGRICULTURAL RESEARCH SYSTEM ORGANIZATION AND MANAGEMENT

**A.** Improve services provided by MSU in its overseas project work and advisory missions

**B.** Strengthen the quality and relevance of training received by professionals from developing countries studying at MSU

**C.** Contribute directly to the analysis and development of agricultural research policy-making through research

### Activities

| 1981-82 | 1. Sponsored a series of seminars examining case studies of national research programs including those in Honduras, Senegal, Pakistan, Kenya, and Egypt. |
| 2. Met with representatives from AID, ISNAR, IADS, CIMMYT, IFPRI, and USDA to examine organizational and management constraints in national research systems. |
| 3. Developed a two credit course offered during Summer 1982 outlining issues of research system organization and management. This course was designed to expose developing country agriculturalists enrolled at MSU to the range of problems they are likely to face as future administrators of national programs. |
| 4. Expanded a reference collection of resource material on research system organization and management. |

### Title XII Funds

| Expended | $12,665.97 |
5. Planned the preparation of a handbook outlining problems and techniques for building and strengthening agricultural research systems in developing countries.

6. Coordinated activities with the USAID/MSU Senegal Agricultural Research Project to help resolve organizational and management constraints experienced during the implementation. Dr. D. Fienup, who serves as head of this strengthening effort, is also the campus coordinator for the Senegal Project.

1982-83

1. Sponsored a number of seminars for specialists involved in strengthening agricultural research systems in developing countries.

2. Significantly extended the collection of materials on organization and management issues.

3. Prepared two issue papers: one involving establishment of research priorities and the other discussing the need for linkage between research and extension.

4. Expanded a course on organization and management of agricultural research systems in developing countries.

5. Began assessment of the national research system in Senegal, to provide a descriptive analysis for use in the AID/MSU Senegalese Agricultural Research and Planning Project.

6. Examined the opportunities for including microcomputer-based research management systems. This complements the microcomputer activities in the Departments of Crops and Soil Sciences and Agricultural Economics.

$17,755.18
Units and Goals

1983-84
1. Published three major state-of-the-art reports on Agricultural Research System Organization and Management in Developing Countries:
   a) "Issues on Research System Organization and Management in the Developing Countries" reviews nine key problems of research system development.
   b) "Linkages Between Agricultural Research and Extension in Less Developed Countries".
   c) "A Microcomputer Based Planning and Budgeting System For Agricultural Research Programs".
2. Implemented a graduate level course on the organization and management of developing country agricultural research systems.
3. Participated in seminars with MSU scientists in Senegal on the Agricultural Research and Planning Project with the University of Florida Farming Systems Support Project Task Force and with AID representatives in a September workshop on Agricultural Technology Management.

Activities

1979-80
1. Worked with Department of Crop and Soil Sciences for recruitment of African and American graduate students interested in farming systems research in tropical Africa to examine ways to reinforce farming systems research in MSU's ongoing AID-African projects.
2. Worked collaboratively with 3 other departments to develop plan of work and set of activities in farming systems.
3. Explored possibilities for new Title XII marketing and farming system seminar on Ecuador.
4. Worked with several foreign graduate students on the design of international research studies, mutually strengthening the students and the department.

Title XII Funds

Expended
$14,695.19

1979-80
$40,424.85
<table>
<thead>
<tr>
<th>Units and Goals</th>
<th>Activities</th>
<th>Title XII Funds Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. To study the use of microcomputers and programmable calculators as problem-solving tools in the department's internationally-oriented teaching, research, and extension activities</td>
<td>5. Several faculty members wrote monographs, reports, and articles on various aspects of international agricultural economics. Course materials were developed and/or strengthened oriented to farming systems and marketing.</td>
<td>1980-81 $30,147.70</td>
</tr>
<tr>
<td>E. To enhance the ability of the international core faculty of the department to meet field data collection, processing, and analysis needs of MSU AID projects</td>
<td>6. Ten faculty members were engaged in upgrading language skills. Two used tutors and tapes to work independently. Two were enrolled in intermediate Spanish offered for MSU faculty. Six others participated in a summer term French language class.</td>
<td></td>
</tr>
<tr>
<td>F. To enable the core international faculty to evaluate currently available software for use in developing countries and to rewrite or modify programs needed to handle special situations</td>
<td>7. Several Ph.D. theses on marketing research in LDC's were purchased from University micro-films and added to departmental collections available to faculty and graduate students.</td>
<td></td>
</tr>
<tr>
<td>G. Improve and extend an agricultural economics statistical program for performing economic analysis of agricultural experiments in developing countries</td>
<td>8. Eleven faculty members, four staff members, and two graduate students participated in Strengthening Grant activities.</td>
<td></td>
</tr>
<tr>
<td>H. Expand Departmental capacity to undertake applied food policy and food security research of relevance to AID projects</td>
<td>1. A small group (three professors and several graduate students) was formed to begin an analysis of the possibilities of using microcomputers and programmable</td>
<td>1981-82 $28,890.30</td>
</tr>
<tr>
<td>I. Provide support for departmental faculty to</td>
<td></td>
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</tbody>
</table>
Units and Goals

develop a new AID initiative on "Food Security in Africa"

Activities

calculators in developing country situations.
2. Assessment of commonly available microcomputer hardware and software was made.
3. Preliminary drafts of training and/or bibliography type documents were prepared.
4. Dr. Michael Weber served as consultant to AID Caribbean farming systems project for which recommendations involving microcomputers and programmable calculators were made.
5. Dr. Warren Vincent served as a consultant to AID Pakistan, preparing a special report on data collection and analysis including the role of microcomputers.
6. Senegalese students in the U.S. on AID contracts participated in a training institute at MSU which contained theoretical and practical applications of programmable calculators and microcomputers.

1982-83
1. Added new tenure stream faculty position to the Department of Agricultural Economics to work in the area of food policy analysis.
2. Departmental faculty committee prepared background materials for a long-range strategic planning activity for future international activities.
3. Dr. Michael Weber collaborated with an Agricultural Economics graduate student in drafting a report on Michigan agriculture and its linkages to developing countries.
4. Four departmental faculty members were involved in directing graduate students in assembling microcomputer software programs useful in conducting food policy research.

1983-84
1. Developed a project on "Food Security in Africa" which will involve applied research to be completed in 6-8 African countries with AID projects.
2. Examined livestock marketing and processing in

Title XII Funds

Expended

$33,311.57

$24,201.33
Africa and incorporated these ideas into the department's Senegal project.

3. Two members of the department, Drs. Harold Riley and Mike Weber, prepared themselves for participation in a research grant under the USAID Caribbean Technical Support to Mission (TSM). The subject was mango marketing problems in the Eastern Caribbean.

4. Dr. Mike Weber cooperated with the microcomputer software project (MSTAT) to implement the pilot projects in Ecuador, Malawi, and Senegal funded by the USAID/University of Florida Farming Systems Support Project.

X. DEPARTMENT OF FORESTRY

A. To update and revise a 1973 Food and Agricultural Organization (FAO) Forest Inventory

B. To formulate a benefit/cost prefeasibility analysis as a basis for the development of the forest resources in the Dominican Republic

C. To increase the permanent international dimension of the Department of Forestry by adding a new assistant professor responsible for the overall coordination and organization of international activities

1983-84

1. Addition of a new position responsible for the stimulation and coordination of international activities within the department.

2. Development of an inventory training manual for Dominican forestry technicians.

3. Formulation of a benefit/cost prefeasibility analysis on two proposed forest management areas in the Dominican Republic.

4. Development of a MUCIA forestry position paper intended to strengthen inter-university forestry linkages for international forestry projects.

Title XII Funds

Expended

$6,858.93
<table>
<thead>
<tr>
<th>Units and Goals</th>
<th>Activities</th>
<th>Title XII Funds Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>XI. AGRICULTURAL ENGINEERING</td>
<td></td>
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</tr>
<tr>
<td>A. Develop the capability of agricultural engineering to participate in development projects particularly in the area of farming systems research</td>
<td>1. Research program developed for Brazilian graduate students pertaining to an audiovisual technique of teaching machine tillage. 2. Research program developed for Brazilian graduate students on the use of alcohol for diesel engines and material and energy flows through the farm scale alcohol production systems. 3. Research program developed for Lebanese graduate students on the application of model analyses for the evaluation of alternative conservation tillage systems in the Middle East. 4. Research project developed for two foreign students on hot weather housing. Travel to Brazil by senior faculty member to work with student on this research and to increase MSU knowledge in this area. 5. A monograph was prepared on post rice production losses and technology in the tropics. 6. Fourteen faculty members, ten graduate students, and one clerical staff member were involved in Strengthening Grant activities.</td>
<td>$26,595.61</td>
</tr>
<tr>
<td>B. Focus on the areas of alternative energy sources in the developing countries, post rice production technology, and losses in the tropics for poultry and livestock</td>
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<tr>
<td>C. To improve communication network with international alumni and currently enrolled international students</td>
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<tr>
<td>D. To add an international position to the department for the purpose of stimulating and coordinating increased international activity</td>
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<tr>
<td>E. To develop and teach a course on modern irrigation systems design and analysis for developing nations</td>
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<tr>
<td>1980-81</td>
<td></td>
<td>$16,508.81</td>
</tr>
<tr>
<td>1. Developed simple technology for the application of international combustion engines as an alternative source of energy. 2. Prepared a monograph on post rice production losses technology in the tropics. 3. Conducted research in the field of hot swine housing as it is used in tropical areas with particular emphasis in Latin America.</td>
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<tr>
<td>1981-82</td>
<td></td>
<td>$10,457.26</td>
</tr>
<tr>
<td>1. Developed a technical paper on the selection of primary tillage methods for paddy rice production in Indonesia. 2. Modified an existing course in Agricultural Mechan-</td>
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</tbody>
</table>
XII. FISHERIES AND WILDLIFE

A. Conduct studies of the nutritional requirements of tilapia which will provide useful data for the MSU Pond Dynamics CRSP project in Indonesia

B. Collect relevant documents on conditions of fish culture in wet-tropical areas of Indonesia for use in an MSU sub-project of the Pond Dynamics Aquaculture project

1981-82

1. Dr. Don Garling conducted experiments on feeding trials to determine optimum nutritional requirements of tilapia which were used to formulate practical diets including waste protein sources for food.

2. Results of these studies have been shared with Dr. B. Premo, who will begin a two-year assignment in Indonesia as part of the Pond Dynamics CRSP. This new information will be incorporated into work to be done as part of the CRSP.

1982-83

Characterized the following:

1. Chemical constituents of tropical rain water and groundwater.
Units and Goals

C. Strengthen our understanding of principle influences on water quality in the tropics and improve our expertise for examining water management problems facing tropical nations

Activities

2. Tropical soils and their influence on the quality of run-off water.
3. Impact of high-tech agriculture on quality of water running off rice fields and tea, coffee, and sugar cane plantations.
4. Household wastes from undeveloped villages and their influence on water quality of adjacent streams and canals.
5. Conducted extensive library searches and compiled a bibliography of titles and abstracts relevant to the subject.

XIII. VETERINARY MEDICINE

A. Coordinate international activities between the College of Veterinary Medicine and the College of Agriculture and Natural Resources
B. Encourage increased involvement in international development opportunities by the College of Veterinary Medicine
C. Modification of a course in Tropical Animal Husbandry and Medicine
D. Conduct a series of seminars involving experiences of faculty members involved in overseas projects

1980-81
1. Developed audio visual material to supplement the course on tropical animal husbandry which was offered in the Summer quarter of 1981.

1981-82
1. Developed and presented a series of seminars on "Animal Health in the Tropics".
2. Organized a Tropical Animal Health interest group with the aim of increasing student knowledge of tropical medicine and organizing a group project abroad.
3. Dr. Tjaart Schillhorn-van-Veen, designated as international liaison between the two colleges, spent two weeks at the African Development Bureau of AID assisting with the drafting of the Livestock Development Assistance Strategy paper for the African Bureau.
4. Dr. Schillhorn also participated in the AID/MUCIA Caribbean TSM and developed a project paper as part of the project.

Title XII Funds

<table>
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<tr>
<th>Expended</th>
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<tbody>
<tr>
<td>$2,526.39</td>
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<tr>
<td>$12,357.67</td>
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</tbody>
</table>
XIV. FARMING SYSTEMS RESEARCH

A. To apply newly gained knowledge and skills in farming systems to strengthen ongoing and future MSU programs in developing countries

B. To pursue overseas project activity with farming system application

C. To expose MSU faculty members to development approaches as defined by other disciplines and to make them better prepared for future overseas involvement

Activities

1982-83

1. Participated in the orientation of Zimbabwe students arriving on campus under sponsorship of the Zimbabwe Manpower Development Project.

2. Dr. Schillhorn van Veen participated in the USAID Caribbean TSM project to review the livestock sector in Antigua and make recommendations on the control of dermatophilosis, a skin disease of cattle.

3. Schillhorn van Veen also participated in the AID/DEVRES/NELNI project on the assessment of research capabilities in Africa.

4. Offered several courses on tropical animal health including "Human and Animal Health in Africa: Implications for Development" and "Problems in Large Animal Medical Tropical Animal Health". These courses were attended by students from both the College of Agriculture and Natural Resources and the College of Veterinary Medicine.

1979-80

1. Weekly meetings involving eight internationally experienced MSU faculty members to develop an interdisciplinary approach to development projects.

2. Reports, position papers, and monographs prepared on the various topics involved in the farming system approach.

3. Created a library for farming systems resource material.

4. Several AID/RFPs have been reviewed by this group for comments and suggestions to improve the MSU proposals.

1980-81

1. Several members of the Farming Systems Research Group have participated in short-term assignments as members of AID teams assembled to evaluate or

Title XII Funds

Expended
$9,390.15

$11,412.50

$76,216.88
Units and Goals

D. To create a resource library for farming systems research activity
E. Prepare a series of working papers on various disciplinary approaches to farming systems research
F. Inclusion of farming systems research strategies in courses now being offered at MSU in which AID participants are represented
G. Provide direction and coordination for the MSU farming systems effort
H. Develop a series of seminars on farming systems based on the model provided by the Farming Systems Support Project at the University of Florida
I. Provide distribution of MSU Farming Systems Support Group brochures and working papers developed in previous years

Activities

plan development activities.
2. A series of working group discussions for an entire academic year involved a core group of eight faculty members and other interested professionals representing a broad range of disciplines.
3. Developed and widely disseminated thirteen working papers on farming systems research.
4. Developed a brochure describing the capabilities of the MSU farming systems research group.

1981-82

1. Prepared and distributed a brochure describing the staff and capabilities of the MSU Farming Systems Research Group.
2. Participated in lively discussions and correspondence with readers of the working papers and others doing research and field work who have exchanged their reports and studies with the MSU group.
3. Farming Systems research strategies have been incorporated into courses at MSU in which AID participants are enrolled.
4. Responded to the AID project on Farming Systems Project world-wide with a lead candidate. Although MSU was not selected for the lead role, it is one of the major collaborating institutions with Dr. Merle Esmay, one of the core members of the MSU Farming Systems Research Group, serving as the MSU liaison.

Title XII Funds

Expended

$10,045.48

1982-83

1. Cooperated with the University of Florida in disseminating information on the farming systems modules developed for incorporation in AID projects.
2. Helped coordinate the development of the AID/University of Florida farming systems seminar held at the MSU Kellogg Biological Station.
3. Assisted in the development of a series held at MSU during Fall term 1983 including a presentation.

$7,884.18
### Units and Goals

- **XV. FOOD SCIENCE**
  - A. Determine how MSU resources can best focus on problems of food processing and nutrition in developing countries
  - B. Improve availability of food and nutritional well-being by establishing linkages with universities and/or research institutes in developing countries
  - C. Bring staff members from each cooperating institution to MSU for discussion, seminars, training sessions, and planning sessions
  - D. Develop graduate student exchange program which would involve students from both MSU and developing countries
  - E. Sponsor a workshop in food processing, marketing and human nutrition with selected individuals from Latin American institutions

### Activities

**1979-80**

1. Contacts made with Latin American institutions interested in establishing relationship with MSU.
2. Four person faculty team from MSU and two colleagues from Utah State visited three Latin American countries--Guatemala, Ecuador, Costa Rica--to explore inter-institutional linkages. Ecuador contact of particular significance as well as key discussions with IICA-Costa Rica for mutually beneficial collaboration.
3. Graduate student sent to Ecuador to collect follow-up data on some of the areas discussed in previous trip by four faculty members.
4. Four faculty members received intensive Spanish language training.
5. Library resources for international food processing and nutrition concerns expanded considerably.
6. Planning was done for workshop entitled, "Opportunities and Challenges in Food Processing, Marketing and Human Nutrition in Latin America" to be held at MSU in June 1981. Representatives from Latin American countries will participate.

**1980-81**

1. Sponsored a workshop in "Opportunities and Challenges in Food Processing, Marketing and Human Nutrition in Latin America" in June 1981. Twelve representatives from seven Latin American countries attended.
2. Two faculty members participating in the Strengthening Grant Program became associated with the Bean/Cowpea CRSP, studying problems of digestibility.

### Title XII Funds

<table>
<thead>
<tr>
<th>Expend</th>
<th>Expended</th>
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<tbody>
<tr>
<td></td>
<td>$16,938.82</td>
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<tr>
<td></td>
<td>$10,828.99</td>
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</table>
### Units and Goals

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
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<tbody>
<tr>
<td>F.</td>
<td>Strengthen linkages and increase collaboration with Latin Americans who participated in first two years of MSU strengthening grant program in food science/human nutrition</td>
</tr>
<tr>
<td>G.</td>
<td>Develop a course in International Nutrition to be taught at the graduate level</td>
</tr>
<tr>
<td>H.</td>
<td>Collaborate with the Institute for Research in Nutrition and Medical Sociology in Ecuador in examining the effect of migration on nutritional status of migrants</td>
</tr>
</tbody>
</table>

### Activities

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>2. Doctoral candidate in Human Nutrition has been in Ecuador for the past year working with staff from the Institute for Research in Nutrition and Medical Sociology. She is working with individuals who were part of the first two years' strengthening grant program to continue collaboration which was initiated during first year of the MSU Strengthening grant.</td>
</tr>
<tr>
<td></td>
<td>3. Dr. Kathy Kolasa, one of the original participants in the first year strengthening activities, supervised graduate student research and visited Ecuador to evaluate progress. Four progress reports have been submitted on research activities being conducted.</td>
</tr>
</tbody>
</table>

### XVI. SOCIOLOGY

Identify and obtain sociological data sets covering Francophone West Africa to be used for training students from West Africa in the techniques of data analysis.

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>1981-82</td>
<td>1. Data sets have been compiled and are being used by African students, particularly those involved with the AID Senegal Agricultural Research Project, as a source of data for secondary analysis for masters thesis.</td>
</tr>
<tr>
<td></td>
<td>2. Data sets have been useful for faculty members strengthening their backgrounds on AID projects. Dr. Jay Artis, department chairman and member of the Farming Systems Research Group, utilized this</td>
</tr>
</tbody>
</table>
XVII. AFRICAN STUDIES CENTER

A. Provide higher quality assistance to agriculturalists on key issues such as "social impact analysis" and Women in Development

B. Provide higher quality training for social scientist graduate students from U.S. and Africa

C. Develop new and relevant research projects for the rural development process

D. Establish MSU as a premier center for Africanist social science for development

E. Become involved in farming systems research work being conducted by other segments of the university

F. Develop a training program for the Social Science of African Farming Systems

<table>
<thead>
<tr>
<th>Activities</th>
<th>Title XII Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-80</td>
<td></td>
</tr>
<tr>
<td>1. Dr. Jay Artis, Chairman of the Department of Sociology, visited four African nations during the Spring term 1980 in order to accomplish the following objectives:</td>
<td></td>
</tr>
<tr>
<td>a) To update his knowledge on the social science components of current development</td>
<td></td>
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<tr>
<td>b) To develop exchange relationships with African publications to improve the information flow to MSU's African library collections.</td>
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<tr>
<td>c) To develop new relationships with research institutes, institutions of higher education, individual scholars and various development agencies in those countries.</td>
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<tr>
<td>3. Prepared a conference on the social science of African Farming Systems to be held in May 1981 at MSU.</td>
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<tr>
<td>4. Three MSU faculty members from Sociology, Anthropology, and African Studies Center and two administrative staff members from African Studies were actively involved in the Strengthening Grant effort.</td>
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<tr>
<td>1980-81</td>
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<tr>
<td>2. Developed a course sequence of seminars focused on rural development in Africa.</td>
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</tbody>
</table>

Expended

$12,706.11

$2,559.43
**Units and Goals**

**XVIII. ANTHROPOLOGY**

**A.** Develop a course in social impact assessment

**B.** Design a social impact assessment module for use in Title XII projects

**C.** Conduct a conference on social impact assessment

**D.** Integrate the efforts of the department with those of other faculty at MSU

**Activities**

**1979-80**

1. Organized a session at the Applied Anthropology Meetings which dealt with agriculture and social impact.

2. Attended an all-day workshop at the Applied Anthropology Meeting which dealt with social impact assessment.

3. Collaborated with African Studies Center at MSU to sponsor workshops and symposiums on social impact assessment methodology.

4. Reviewed the literature on socio-cultural impact studies research.

5. Began organizing a conference on Social Impact Analysis and Development to be held at MSU in May 1981 for exploring the use of social impact studies in international projects.

6. Three faculty members, one graduate student and one clerical staff member contributed to this Strengthening Grant effort.

**1980-81**

1. In cooperation with the African Studies Center, conducted a conference on "Social Impact Analysis" in May.

2. Developed and conducted a course on Social Impact Analysis for Spring term 1981.

3. Produced a study on Social Impact Analysis from an Anthropological Perspective.

**Title XII Funds**

**Expended**

$13,432.47

$9,832.82

$9,477.45

**XIX. SYSTEMS SCIENCE**

**A.** Develop a simulation model for studying famine logistics

**1980-81**

1. Model developed to permit the study of alternative policies for effectively and economically meeting the emergency food needs of a famine stricken area.

**Expended**

$9,477.45
Units and Goals

B. Develop a paper on a systems approach to nutrition planning in poor countries

Activities

2. Article entitled, "Toward a Comprehensive Approach to Nutrition/Health planning for Poor Countries", published in *Ecology of Food and Nutrition*.

XX. DAIRY SCIENCE

A. Establish linkages with selected Latin American institutions to further MSU studies on problems of tropical cattle production and ruminant agriculture

B. Increase language proficiency of departmental members engaged in international work

C. Develop a more comprehensive dimension in the Animal Science discipline to include the animal component as an integral part of a systems approach to development

$16,086.18

XXI. ADMINISTRATION AND COORDINATION OF TITLE XII ACTIVITIES AT MICHIGAN STATE UNIVERSITY

A. Provide administrative support to units and

1. Addition of one full-time administrator and a half-time secretary, fully supported by University
<table>
<thead>
<tr>
<th>Units and Goals</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>individuals at MSU involved in Title XII activities</td>
<td>General Funds.</td>
</tr>
<tr>
<td>B. Coordinate MSU response to AID Project activities</td>
<td>2. Carried out all managerial functions associated with Title XII strengthening grant program on campus.</td>
</tr>
<tr>
<td>C. Coordinate activities of MSU Title XII Strengthening Grant activities</td>
<td>3. Assisted faculty with administrative support services to strengthen their international dimension.</td>
</tr>
<tr>
<td>D. Increase public awareness of benefits of international involvement throughout the State of Michigan</td>
<td>4. Provided logistical and other administrative services to ongoing projects not included in regular contract projects.</td>
</tr>
<tr>
<td>E. Encourage international involvement in Title XII activities by MSU faculty and staff</td>
<td>5. Coordinated overall MSU effort involving participation in Title XII-type activities.</td>
</tr>
<tr>
<td>F. Provide administrative services to activities not included in AID contract projects</td>
<td>6. Added a half-time faculty member supported by University General funds, to provide additional coordination for international activities. Planned World Hunger Symposium and provided leadership in response to several AID proposals.</td>
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<tr>
<td></td>
<td>7. Added a quarter-time faculty member to assist in international activities.</td>
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<td>8. Added a half-time student help to organize publication of International Newsletter and assist in related public information activities.</td>
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<tr>
<td></td>
<td>9. Position of Director, Institute of International Agriculture was strengthened by addition of title, Assistant Dean, College of Agriculture and Natural Resources.</td>
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<td></td>
<td>10. Organized and scheduled interdisciplinary briefing and debriefing of faculty and staff preparatory to and return from overseas assignments.</td>
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<td></td>
<td>11. Scheduled and conducted individual and group meetings to foster exchange of information and experiences to enhance improved integration and coordination between disciplines.</td>
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<td>12. Funded publication of Institute quarterly newsletter. distributed widely on and off campus.</td>
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<td></td>
<td>13. Produced an exhibit and brochure for use in reaching key off-campus clientele groups. Exhibit was used at such activities as Farmers Week, Agricultural Exposition, Agricultural Alumni Autumnfest and County Commissioner Day.</td>
</tr>
</tbody>
</table>
Units and Goals

Activities

1980-81
1. Coordinated MSU response to AID Title XII project in Zambia, Caribbean, Indonesia (part of Aquaculture CRSP).
2. Provided background preparation for MSU faculty member to begin long-term assignment in AID Title XII project in Senegal.
3. Disseminated information on the value of international development activities by means of newsletters, brochures, exhibits, presentations.
4. Organized and coordinated cultural and language training for faculty members in both Spanish and French in preparation for future involvement in AID activities.
5. Served as liaison with governmental agencies and other universities for a coordinated response to AID project activities.

1981-82
2. Organized and coordinated language and cultural training for faculty members in preparation for AID assignments in Malawi, Indonesia, Dominican Republic and Senegal.
3. Developed and encouraged inter-institutional linkages with other universities for a collaborative response to AID project opportunities.
4. Directed efforts to increase public understanding of international involvement utilizing news releases, brochures, exhibits, newsletters and presentations.

1982-83
1. Coordinated the MSU response to the Farming Systems Support project, the Zimbabwe University of Agriculture Expansion project, Belize Livestock Development Project, Philippines Rainfed Resources Projects

Title XII Funds

Expended

$23,725.37

$43,200.00

$37,432.28
Units and Goals

Activities

(with International Agricultural Development Service)
and many other smaller project efforts.

2. Served as liaison with AID on the development of a
   joint Memorandum of Understanding between AID and
   MSU/North Carolina Agricultural and Technical State
   University.

3. Co-sponsored a conference on "Accelerated Development
   in Sub-Saharan Africa" with the MSU African Studies
   Center and the MSU Center for Advanced Studies in
   International Development.

4. Directed a public information program to inform
   other units at MSU, throughout the state of Michigan,
   and other U.S. institutions of international
   development activities at MSU. Vehicles included
   an Institute Newsletter, public news releases,
   articles in trade publications and a new exhibit
   emphasizing the need for international involvement.

5. Coordinated the HUCIA involvement in the Caribbean
   Technical Support to Mission (TSM) project including
   recruitment of project teams, identification of
   studies to be undertaken and general liaison with the
   AID Caribbean mission.

6. Coordinated the development of several memoranda
   of agreement with U.S. and overseas institutions.

7. Provided overall direction and coordination to the
   MSU Strengthening Grant program.

1983-84

1. Worked with officials of USAID to set up, staff
   and organize the MSU/Penn State/USAID Faculty of
   Agriculture Expansion Project in Zimbabwe.

2. Coordinated the HUCIA involvement in the Caribbean
   Technical Support to Mission (TSM) Project including
   project team recruitment, identification of projects
   to be undertaken and general liaison with the AID mission.

3. Worked with USAID in developing a joint Memorandum
   of Understanding with North Carolina Agricultural
   and Technological University, for the purpose of
   working together on AID projects.

4. Directed a public information program to inform
   

Title XII Funds

$52,204.70
XXII. FOREIGN LANGUAGE TRAINING

A. Provide training in French and Spanish for individuals participating in or with potential future involvement in AID project activities

B. Provide necessary background material on cultural aspects of other nations which will supplement the Language training experience

C. Provide language training for individuals participating in Title XII Projects

Activities

various constituencies of international activities at MSU. One significant publication, *Michigan Agriculture and Its Linkages to Developing Nations*, has had wide distribution and is serving as the model for similar efforts in other states.

5. Provided overall support and direction for the MSU Title XII Strengthening Grant Program.

1980-81

1. Sponsored language classes, administered by the Department of Romance Languages, in beginning and intermediate Spanish and beginning French.

2. Provided language tutors for individuals with pending overseas assignments, both long- and short-term.

3. Maintained a circulating periodical library of foreign language journals for use by faculty members working in developing countries.

1981-82

1. Arranged for language tutors in several languages—French, Spanish, Indonesian, and a Malawi dialect—for faculty members with overseas involvement.

2. Provided geographical, political, sociological and cultural backgrounds of various countries in Latin America, Asia and Africa to individuals departing for overseas assignments.

1982-83

1. Provided intensive French tutoring for two individuals with pending AID project assignments: one in the Senegal Agricultural Research and Planning Project and one in the Gambia River Basin Project.

2. Sponsored a Spanish class for individuals participating in short-term assignments in the Dominican Republic National Resources Management Project.

Title XII Funds

Expended

$12,190.60

$10,002.36

$10,407.38
XXIII. INTERNATIONAL TRAVEL

A. Provide overseas and domestic travel opportunities to faculty members for the purpose of establishing overseas linkages, internationalizing the HSU curriculum or providing research opportunities on subjects dealing with development activities

B. Provide overseas externship training for members of the Cooperative Extension Training Program

C. Provide selected overseas participation in AID activities in response to AID needs and requirements

D. Support ongoing research to benefit livestock production in the Caribbean area

Activities

1983-84
1. Sponsored a Spanish class for individuals participating in the Dominican Republic Natural Resources Management Project. This class is a continuation of one that began in 1982-83 and has reached the intermediate level.

1979-80
1. This was a centrally administered travel fund for Title XII travel opportunities which arose during the year. In addition to this fund, individual projects were budgeted for travel identified in the strengthening grant project proposals. Most of these central funds were transferred to other project activities during the course of the year.

2. Supported travel of one individual to participate in a five-day training program offered by the Canadian Institute for Development Assistance in Ottawa. Information and experience gained served as a basis for the development and coordination of HSU’s intensive training of 15 Extensionists to prepare them for overseas contributions.

3. Supported travel to several Title XII related conferences and meetings for staff members of the Institute of International Agriculture.

1980-81
1. Visited field sites in Costa Rica where income-generating projects have been developed for Women in International Development to identify socioeconomic indicators and potential collaborative research opportunities.

2. Attended National Title XII WID Workshop to discuss priorities in the area of women and development.

Title XII Funds
Expended
$6,992.16

$1,982.68

$1,518.02
<table>
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<tr>
<th>Units and Goals</th>
<th>Activities</th>
<th>Title XII Funds</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1981-82</td>
<td></td>
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<tr>
<td></td>
<td>Traveled to the Dominican Republic for the purpose of discussing, planning the Natural Resources Management project with representatives of AID and Ohio State University.</td>
<td>$6,870.31</td>
</tr>
<tr>
<td></td>
<td>1982-83</td>
<td>$11,400.62</td>
</tr>
<tr>
<td>1.</td>
<td>Four members of the Extension Training program participated in one-month individual international externships as a follow-up experience to their original group training. Two individuals worked in Dominica as part of the MUCIA/AID Caribbean Agricultural Extension Project. Two individuals worked in Belize to assist with income-generating projects.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Two staff members from the Department of Animal Science worked in Belize to modify and adapt a solar drying unit to dry feedstuffs in the Windward Islands as part of an AID sponsored project of the Caribbean Agricultural Research and Development Institute (CARDI).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1983-84</td>
<td>$10,910.39</td>
</tr>
<tr>
<td>1.</td>
<td>Two members of the Cooperative Extension Training Program participated in the externship portion of the program with one-month assignments in Montserrat and Dominica.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>A staff member from Agricultural and Extension Education was requested by USAID Africa Bureau to Participate in the Agricultural Education Workshop held in Cameroon.</td>
<td></td>
</tr>
</tbody>
</table>
TRAINING SCHOLARS FROM SICHUAN

Donor: United Board for Christian Higher Education in Asia
Contract No.: Memorandum of agreement
Account No.: 71-4242
Location: MSU Campus
Duration: January 1983-June 1985
Budget: $98,000

Key MSU Faculty: Warren Cohen, Director (Asian Studies Center)

Project Goal: To provide financial support to seven scholars from Sichuan Province in the People's Republic of China to complete two-year graduate programs in the social sciences and humanities.

Cooperating Institutions: Michigan Department of Commerce; Sichuan Province

Location of Documentation: All project information is available from Lillian Kumata, Asian Studies Center, 101 Center for International Programs.

Project Summary Comment: As part of the sister-state arrangements made between the State of Michigan and Sichuan Province, and as an outgrowth of visits to Sichuan by President Mackey, Dean Smuckler, and Asian Studies Center Director, Warren Cohen, this agreement is designed to provide junior faculty members at the University of Sichuan with the opportunity to further their studies in their respective fields. United Board participation produces funding for the expression of the sister-state agreement in terms of enhanced higher educational opportunities.
TROPICAL DRY FORESTS OF NORTHERN AUSTRALIA

Donor: U.S. Department of Agriculture
Contract No.: 59-PSW-82-0059
Account No.: 71-1992
Location: Australia
Duration: August 1982-July 1985
Budget: $60,000

Key MSU Faculty: P. Werner, Co-Director (Kellogg Biological Station/Botany & Plant Pathology); P. Murphy, Co-Director (Botany & Plant Pathology)

Project Goals: To investigate the structure and regeneration of dry tropical forests in the Kakadu National Park/Kapalga CSIRO Research Areas in Northern Australia fundamental to the development of strategies for management, restoration, and preservation.

Project Plans/Objectives:
1. To study the structure and function of an undisturbed tropical dry-deciduous forest.
2. To recover the dry forest immediately after the exclusion of feral large mammal herbivores (water buffalo).
3. To regenerate the dominant tree species.
4. To conduct research on the ecology of two major annual weeds.
5. To analyze land use patterns.

Location of Documentation: A project proposal is on file in the Office of Contracts and Grants, 302 Administration.
UNIVERSITY CENTER FOR INTERNATIONAL REHABILITATION

Donor: Rehabilitation Services Administration of the U.S. Department of Health, Education & Welfare

Contract No.: HEW 22-P-57988-01

Account No.: 71-2039, 71-0255, 71-0289, 71-0119, 71-0151, 71-0177, 71-0206, 71-0223

Location: Worldwide

Duration: August 1983-July 1985 (renewable yearly)

Budget: $823,409

Key MSU Faculty: D. Galvin, Director (Educational Psychology/Community Health Science)

Project Goals: To promote a mutually beneficial relationship among domestic and international universities and agencies associated with rehabilitation and special education through the utilization of information, research, and teaching in order that services to the physically and mentally handicapped can be improved through better employment opportunities and independent living, legislation, and policy development on behalf of the disabled, the application of technology to the problems of the disabled, and the removal of environmental, social, and attitudinal barriers.

Project Plans/Objectives:
1. To gather, coordinate, disseminate, and utilize information on common problems of disability regardless of national boundaries.
2. To foster research and collaborate with universities and governmental and private agencies.
3. To develop and support degree granting and non-degree programs in the U.S. and internationally in order to prepare individuals to assume leadership positions in administration, research, college teaching in rehabilitation, special education or a related field.
4. To develop a rehabilitation engineering service to provide technical support for the Michigan Bureau of Rehabilitation to rehabilitate severely handicapped persons, especially the homebound.

Cooperating Institutions: Universities and private agencies with similar interests throughout the world

Location of Documentation: Project documents are available in the UCIR, 513 Erickson.
UNIVERSITY OF NIGERIA--NSUKKA


Contract No.: AID/afr-280
Account No.: 71-2024
Location: Nigeria
Duration: March 1960-July 1969
Budget: AID--$9,943,610; Netherlands--$920,500; Ford--$1,094,600; Carnegie--$27,187; FAO-UNICEF--$288,000; Peace Corps--$100,000; British and Canadian Volunteers--$10,000; Inter-University Council--$127,400; MINEX--$66,500; Government of Nigeria--$33,559,000. Total support (includes amounts not outlined)--$46,136,797.

Key MSU Faculty: A total of some 79 long-term and 62 short-term advisors contributed to the program in the field, as well as 7 campus-based personnel who fulfilled short-term inspection and supervisory roles. Additionally, a Campus Coordinator, Assistant Coordinator, Administrative Officer, and clerical personnel participated in the project office.


Irving Wyeth served as Campus Coordinator 1965-1969 and wrote the final report.

Project Goals: To render technical advice and assistance to the Government of Nigeria for the purpose of providing advisory services on the planning, administration, and organization for the development of a university within Nigeria at Nsukka.

Project Plans/Objectives:
1. To analyze the social and economic problems of Nigeria that will be used in defining the functions of the new university in order that it might serve as both a cultural and vocational institution serving the academic and applied needs of the people of Nigeria.
2. To provide assistance in the following areas:
   a. Any needed development of curricula, course content, and other instructional matters.
b. Planning and developing research methods, procedures, and programs along with the preparation of papers on the research results.
c. Developing extension procedures and materials through which the university may extend its knowledge to the people of Nigeria.
d. Appraising the need of educational and technical materials, and when needed, assisting in the procurement of such materials.
e. Identifying and developing programs leading to the strengthening of the faculty of the university.
f. Developing the organizational structure and administrative processes of the university.
g. The development of a charter for the university that will establish its directing board and set forth essential governmental relations. The Contractor will advise and consult on the problem of creating a form of organization that will permit the university to receive financial support from the government and yet retain academic freedom from political force.

3. To assume joint responsibility for the conduct of courses with a local member of faculty in order that the course can be continued after the MSU consultant departs.

4. To conduct project analysis and research to help develop a total university that will serve the specific economic, social, and cultural needs, problems, and goals of Nigeria.

5. To assist in the selection of Nigerian scholars who have already achieved their bachelor's degree for further training in order that when campus buildings are completed and classes are ready to start, a core of Nigerian staff members would be prepared to assume academic responsibility at least in junior staff roles.

6. To effect an Anglo-American "partnership" in providing assistance for the planning and development of the university, and to maintain liaison with the appropriate United Kingdom educational officials to the maximum extent practicable over the period of the "partnership".

7. To establish direct relationships as a source of information and knowledge with those people throughout the Eastern Region and the country having responsibility in such areas as agriculture, engineering, and business administration; those involved in the present educational programs, either within the churches or the Government; and with other organizations, both public and private, that might be related to the development of higher education in Nigeria.

8. To contribute to the development of the Continuing Education Center and Economic Development Institute as integral parts of the university.

9. To continue to assist in the development of such selected areas as the Division of General Studies and the Faculties of Agriculture, Business Administration, Engineering, Education, and Science.

10. To assist regular staff in planning and conducting seminars beneficial to any or all of the staff and faculties constituting part of this institution-building project.

11. To act as the university's agent or advisor in matters of recruitment, purchase of commodities or other services requiring U.S. resident representation.

Location of Documentation: All project papers, reports, budgets, etc., are located in University Archives and Special Collections, Main Library.

Project Summary Comment: The idea for the University of Nigeria at Nsukka was conceived by Dr. N. Azikiwe, then Premier of the Eastern Region of Nigeria. Dr. Azikiwe was a personal friend of John Hannah, then President of Michigan State University. Through a series of negotiations between Azikiwe, Hannah, and the International Cooperation Agency (the forerunner of the Agency for International Development), an agreement was reached concerning MSU’s assistance in designing and implementing plans for a land-grant type institution, adapted to meet the unique needs of a developing country, in Nigeria. The main thrust of the project in its design stage was to ascertain from universities in the United Kingdom and the U.S. the particular characteristics that would be useful to use as a model in developing the Nigerian institution.

In its nine-year life, the emphasis of the project was placed on helping to develop relevant curricula and instructional materials to meet Nigerian needs: developing the staff; conducting student and faculty exchanges; institutionalizing research and its application to Nigerian requirements; and providing facilities and equipment for the orderly expansion of the university. All of these activities were undertaken in the context of entire institution building. The University of Nigeria, Nsukka, included Faculties of Agriculture, Business Administration, Education, Engineering, Science, Social Studies, Arts, Law, and Human Medicine. An Economic Development Institute was also established. For the establishment of each of these faculties, a series of goals and objectives was generated. They are reproduced here to provide the broadest understanding of the type of undertaking the Nsukka project was.

Faculty of Agriculture--To establish a Faculty of Agriculture that will serve Nigeria, not only by offering degree programs to resident students, but also by conducting significant research on the applied agricultural problems of the area and providing informal extension-type continuing education programs to the people of Eastern Nigeria. Specifically, the objectives were to a) plan, organize, staff, and administer the Faculty of Agriculture; b) assist in the recruitment and training of Nigerian staff; arrange for an orderly succession of MSU/AID advisors concentrating on the selection and training of capable Nigerian counterparts to replace advisors; c) develop departmental curricula, reasonably broad in scope, which 1) involve courses in General Studies, Basic and Applied Sciences, and Agriculture; 2) focus on the integration and coordination with non-agricultural departments of the University; 3) are sensitive to Nigerian needs; and 4) which allow for practical training and experience on the part of students; d) formulate plans for graduate training with a particular emphasis on programs that will offer students an opportunity to complete their course work overseas and their research and thesis requirements in Nigeria; e) establish, equip, and maintain agricultural laboratories for teaching and research in such areas as livestock, poultry, animal health, crops and soils, agricultural engineering, home economics, and the agricultural and social sciences; f) engage in and promote research which treats with practical problems and initiate appropriate fundamental research; g) plan and conduct informal extension-type continuing education programs designed to relate Faculty resources to agricultural needs of Nigeria; h) establish, maintain, and expand working relationships with the Ministry of Agriculture in the Region, appropriate Federal ministries, and other agricultural and educational institutions throughout the country.

Faculty of Business Administration--To promote and develop a Faculty of Business Administration that will aim to tie education to the servicing of the economic needs
of the local indigenous people and the country, at large, or more specifically, in
relating its teaching, research, and service programs in business administration to
the needs for trained personnel in government and industry. To provide substantive
training and knowledgableness in administration, management theory, marketing and
personnel administration, and sound development of knowledge, case materials, and
experiences which were specifically and uniquely Nigerian, such as marketing,
distribution, transportation, and production. Specifically the objectives were to a)
establish and review the objectives of the Faculty of Business Administration in
terms of what types of graduates it was trying to turn out and how these products fit
into the needs of the economy; b) develop indigenous materials to use as examples and
case studies in the classroom to supplement the necessity for using foreign text
books and more practical examples of classroom material directly to local situations
and problems; c) devote maximum attention to developing the library in the area of
business administration; d) determine the feasibility of offering night classes on
the Enugu campus for part-time students; e) determine the desirability of developing
graduate training in business administration; f) develop the quantity and quality of
the staff, especially Nigerian; g) develop and nurture contracts with government and
private business in order that they might better understand the new field of business
administration, and we might better understand their needs and problems; h) identify
and train a competent Nigerian to take over as Dean of the Faculty and help to
complete the Nigerianization of the total Faculty staff; i) establish working
relations with our counterparts in other Nigerian universities as well as with the
Institute of Management in Lagos and other related institutions in that country; j)
encourage an entrepreneurial spirit and desire within the students during their stay
at the University; k) encourage a greater amount of research and publication by staff
members; l) plan, organize, and conduct extension-type programs in cooperation with
the Division of Extra-Mural Studies.

Faculty of Education--To give priority to a program in education which would
assist teachers and educational leaders to help in the reconstitution of Nigeria's
educational system. Specifically, the objectives were to a) plan, organize, staff,
and administer the Faculty of Education program devoted to the training of teachers
and school administrators, both in the degree program and in special continuing
education activities; b) develop full professional degree programs in education and
certificate and diploma courses for upgrading persons; c) organize and conduct
institutes and workshops for the upgrading of school personnel; d) offer extension
courses and workshops throughout Nigeria to help teachers in local communities deal
with this particular problem; e) upgrade levels of professional competency of Faculty
staff by providing overseas post-graduate training experience; f) provide service
courses for other Faculties of the University; g) place its research effort on action
and applied research as contrasted to rigidly experimental and pure research;
research emphasis should be given to problems relevant to the Nigerian milieu; h)
establish and develop a University Demonstration School; i) establish and develop a
research library and statistical laboratory; j) design and undertake service projects
adapted to helping people to help themselves, such as: the establishment of an
Instructional Materials Development Center, Demonstration School Library, Center for
Adult Education and Community Development, short courses, workshops, and institutes,
and publication programs; k) select and train all staff; l) assist in the placement
of graduates.

Faculty of Engineering--To assist in planning (and implementation of plans) the
organizational structure, administration, facilities, curricula, research, equipment
requirements, staff selection and training for engineering programs that will help to
meet the specific economic, social, and cultural needs, problems and goals of
Nigeria. Specifically, the objectives were to a) establish the Office of Dean of the Faculty and each of the several departments and assist in all administrative responsibilities (planning, organizing, budgeting, programming, staffing, reporting, etc.) associated with such responsibilities; b) select and train counterparts and turn over major responsibilities to them as situations permit; c) assist in the recruitment, selection, and training of new staff members; the setting of high standards for personnel; and the development of evaluation and promotion criteria for all junior and senior staff; d) improve and strengthen the academic work of all departments through advice and guidance on curriculum development, laboratory work, lecturer/student relationships, examinations, student projects, etc.; e) develop and revise curricula that are sensitive to Nigerian needs; f) maintain close working relationships with the Dutch Technical Assistance project; g) work with the Division of Extra-Mural Studies whenever possible to promote, plan, and conduct programs of engineering and continuing education; h) coordinate all engineering activities with other University Faculties, especially the Faculties of Agriculture and Science; i) represent the Faculty to the outside non-academic community, such as government ministries, private industries and business, other universities, the Nigerian Society of Engineers and similar professional bodies; j) aim at all times for a flexible type engineering education program that fits the capabilities of the University of Nigeria as that institution develops in response to Nigerian needs.

Faculty of Science--To help establish a Faculty of Science designed to provide trained scientists in keeping with Nigeria's needs. Specifically, the objectives were to a) assist in the planning, organizing, staffing, and administering of the Faculty of Science; b) contribute to the Faculty's staffing goals; assist in the recruitment and training of Nigerians; and arrange for the training of a Nigerian to assume Deanship of the Faculty; c) assist in the development of appropriate curricula, suited to the needs of Nigeria and in step with the science of the day; d) provide teaching facilities to include space, equipment, technicians, and library holdings; e) encourage research among Nigerian colleagues; help train indigenous personnel to be effective researchers; encourage applied research projects that are immediately relevant to Nigerian problems; f) develop continuing education programs that are adapted to the Nigerian scene.

Faculty of Social Studies--Although broader in scope than the objectives presented, activity targets are limited to those subject areas for which MSU advisors were assigned major responsibilities, namely: economics, geography, and psychology. Other departments created were political science, religion, and sociology/anthropology, with MSU participating to a small degree in the achievement of the goals and objectives of the latter department. Specifically concerning the Economics Department, the goal was to assist the Nigerians to establish and build a Department of Economics that will relate itself to relevant problems of Nigeria, with appropriate teaching, research, and extension programs. Included in the specific objectives were aims to a) develop curricula that are adapted to local indigenous situations; b) assist in the procurement and development of teaching materials; c) assist University administrators to recruit, select, and train staff, to include a Nigerian department head; d) initiate research programs relevant to local needs and assist indigenous senior staff to engage in such pursuits; e) participate in and encourage Nigerians to participate in continuing education efforts. The objectives of the Geography Department were to a) develop a department that is predominately indigenous in its composition with the inclusion of visiting and exchange faculty; b) develop a curriculum that is sensitive to Nigerian needs, to include appropriate syllabus and relevant teaching aids; c) promote staff competence through professional improvement programs, such as overseas graduate training; d) encourage research activity within the field of geography and in related areas; e) promote continuing
education programs. The development of the Psychology Department, the first such effort in Nigeria and all of West Africa, had as its goals to support the University decisions to establish the first Department of Psychology in Nigeria and West Africa, to implement the program approved by the University, and to advance the acceptance and application of psychology within and without the University. Specifically, the objectives were to a) explore and define the most appropriate emphases for training and application of psychology in Nigeria; b) develop a sound curriculum for the discipline of psychology in Nigeria; c) offer an undergraduate degree in psychology; d) recruit qualified teachers and researchers to fulfill the teaching responsibilities of the basic and special interest area courses in psychology; e) develop relevant case-study materials; f) develop an experimental psychology laboratory for demonstration and practicum as well as to stimulate simple but meaningful research in the Nigerian context and employing Nigerian phenomena; g) carry out appropriate research, initially in the industrial and social psychology areas; h) recruit mature, advanced graduate students to come to the University of Nigeria to carry out their doctoral research. MSU's objectives in the establishment of the Sociology Department were to a) assist in the establishment and early development of a Department of Sociology that will relate itself to relevant problems of Nigeria; b) plan and develop a curriculum that is adapted to indigenous situations; c) contribute to staff recruitment, selection, and training, commensurate with needs and plans; d) encourage research that is relevant to the Nigerian scene and the results of which can be incorporated into instructional programs at the University; e) participate in and encourage Nigerians to do likewise with regard to continuing education programs.

Faculty of Arts--within this Faculty, MSU assisted in the creation of the Departments of English, Literature, History, Journalism, Music and Fine Arts, and Philosophy. Overall objectives in providing assistance in the establishment of this Faculty were to a) assist in the development of curricula, course content, and other instructional matters that will be uniquely adapted to the Nigerian situation with particular concern for English and Philosophy, each of which were served by an MSU advisor; b) help to promote and develop research methods, procedures, and programs along with the preparation of papers on research results; c) develop extension procedures and materials through which the University may extend its knowledge to the people of Nigeria; d) help to appraise the need of educational and technical materials, and when needed, assist in the procurement of such materials; e) identify and develop programs leading to the strengthening of the senior and junior staff of the Faculty; f) assist in the development of the Faculty's organizational structure and administrative processes.

Faculty of Law--services were limited because of the abundance of lawyers in Nigeria from which a core staff of academicians could be and were selected. MSU's role was largely limited to the training of staff, especially the identification and selection of an indigenous dean, which was finally assured when the war broke out.

Faculty of Human Medicine--the war also intervened in the establishment of this faculty. MSU's main participation in the creation of the Departments of Biochemistry, Anatomy, Physiology, Pharmacology, and Biological Sciences was to recommend a) objectives and policies of the newly established Faculty; b) ways to set forth relationships between the various disciplines; c) how to reconcile the kinds of needs in terms of physical facilities, equipment, and supplies; d) specialties and sub-specialties; e) curricula and training programs.

To meet the overall goal to place primary emphasis on research and the training of Africans to assume significant roles in the economic development of the African continent, MSU was highly instrumental in the establishment of the Economic Development Institute which was to be an integral part of the University of Nigeria. The
overall goals of the Institute were to promote the growth and development of the Nigerian economy through advanced training in research, research on growth and development problems, and identification of extension-type programs. Specific objectives were to a) plan, staff, organize, and operate an Economic Development Institute designed to promote the growth and development of the Nigerian economy and to become a source for the expansion and Nigerianization of the University's advanced research, training, and extra-mural (continuing education) programs in economic development; b) conduct research on growth and development problems of Nigeria so as to improve public policies, private efforts, and regional and national planning; c) conduct advanced training in research and planning techniques for growth and development; d) carry out the following activities in cooperation with the Continuing Education program: semi-popular writing on solutions to growth and development problems in Nigeria, seminars with political leaders, businessmen, civil servants, and academicians, and short-term training programs conducted in conjunction with the University's Continuing Education Program; e) mobilize research resources both in Nigeria and abroad to support the work of the Economic Development Institute and related Faculties and Departments; f) carry out an aggressive recruitment program so that the Institute may be competently staffed and have competent trainees to train; g) develop two advisory boards for the Institute, one internal to the University and the other external; h) initiate a fellowship program to recruit and support research fellows in the Institute; i) develop an outstanding economic development library; j) attract to the Institute students and scholars capable of enhancing the Institute's program in research and training; k) carry out an aggressive program of mobilizing resources for support of the Institute.

The Biafra war fought largely in the Eastern District where this project was located brought MSU direct participation to an end. With skirmishes occurring just nine miles from campus, MSU faculty were evacuated and work on the project was completed on the MSU campus at the University of Nigeria Program Office.
UNIVERSITY OF RYUKYUS, OKINAWA

Donor: U.S. Civil Administration of the Ryukyus (Department of the Army of the U.S. Council on Education), Rockefeller Foundation

Contract No.: Not available
Account No.: 71-2020
Location: Okinawa
Duration: April 1951-June 1968
Budget: Not available

Key MSU Faculty: R. Horwood, E. Wheller, B. Kuhn, C. Mead, R. Alexander, and K. Wright (Agricultural Economics); R. Fell and R. Hatch (Counseling); T. King, and I. Ishino (Anthropology); J. Stockton and F. Erlandson (Counseling)

Project Goals: To develop a program of assistance to the newly-established University of Ryukyus; to assist in the making of future plans for the growth and development of the university; to assist the Ryukyuan faculty; to do credit and non-credit teaching; and to perform research.

Project Plans/Objectives:
1. To formulate a basic organizational pattern for the entire university.
2. To determine goals, establish priorities, and evaluate programs.
3. To develop staff in Okinawa and at MSU.
4. To prepare instructional programs in the natural, physical, and biological sciences and business administration.
5. To provide physical facilities and equipment for the orderly expansion of the university.
6. To develop specially designed educational, research, and extension programs oriented to Okinawan needs.
7. To establish a university-wide library to serve the needs of faculty and students.

Cooperating Institutions: University of Ryukyus, Naha, Okinawa

Location of Documentation: Most project records can be found in University Archives and Special Collections, Main Library.

Project Summary Comment: One of MSU's major institution building projects was a program of support to the development of the newly established University of Ryukyus. Forty person-years of MSU faculty effort, 14 of which represented the agricultural sciences, contributed to the project between 1951 and 1968. These advisors worked intimately with Japanese colleagues in all aspects of institutional university development.

A feature of the project was the planning and implementation of educational programs combining formal programs of instruction, on campus, with those designed to meet the needs of off-campus clientele. Courses, seminars, conferences, and other teaching methodologies were developed and offered to large numbers of Okinawan teachers, farmer groups, business leaders, and others. The relationships established with this project have continued and have been manifested in linkage agreements between the University of Ryukyus and MSU.
UNIVERSITY OF ZIMBABWE FACULTY EXPANSION

Donor: Agency for International Development
Contract No.: AID-613-0209-C-00-4007
Account No.: 71-2015
Location: Zimbabwe
Duration: March 1984-March 1989
Budget: $4,900,000

Key MSU Faculty: Kim Wilson, Project Coordinator (Institute of International Agriculture); K. Lawton, Field Team Leader (Crop & Soil Science); R. Herther (Horticulture); S. Buccola and W. Vincent (Agricultural Economics); T. Stillwell and E. Everson (Crop Science); W. Magee (Animal Science)

Project Goals: To recruit and provide administrative and back-up support for long- and short-term experts who will serve on, or as consultants to, the Faculty of Agriculture of the University of Zimbabwe; to procure scientific and teaching equipment needed to expand and equip the Faculty of Agriculture; to design, arrange, and provide administrative and back-up support for exchanges of academic staff and for Zimbabwean participants selected by the Faculty departments for academic training in the U.S.; to recruit and provide administrative and back-up support for long- and short-term experts to serve in technical assistance or consultant capacities to other Government of Zimbabwe organizations in agriculture and rural development.

Project Plans/Objectives: Recruitment of long- and short-term specialists include agricultural scientists in the areas of soil science, agricultural statistics/biometrics, food micro-biology/animal products, agricultural economics/price analysis, horticulture and animal science/small livestock. Other needs that have been identified include an irrigation engineer. Specifications are being drawn up for U.S. graduate students to conduct research and/or teach in Zimbabwe, as well as for the establishment of a cooperative research fund.

Cooperating Institutions: MSU has subcontracted with Penn State to fulfill the goals of the project. Cooperation between MSU and the University of Zimbabwe as well as the Ministry of Agriculture and the Ministry of Lands facilitates the implementation of the project.

Location of Documentation: Further information on this project can be obtained from K. Wilson, Assistant Director, Institute of International Agriculture, 101 Agriculture Hall, or from M. Lacey, Administrative Assistant, 118 Agriculture Hall.

Project Summary Comment: This project is designed to help alleviate the constraints to development of smallholder agriculture in Zimbabwe by providing specialized graduates in a number of agricultural disciplines who will, in accordance with the specifications of the AID Agricultural Sector Assistance Program, provide additional trained manpower to help meet the needs of smallholder agriculturalists.
URUGUAY AGRICULTURAL PRODUCTION AND MARKETING

Donor: Agency for International Development, subcontract to Pennsylvania State University, and IICA (Inter-American Institute of Agricultural Sciences)

Contract No.: AID-la-722 (primary AID contract); AID/TPSU-MSU-722-24

Account No.: 71-2042

Location: Uruguay

Duration: February 1973-March 1976

Budget: $301,960 (MSU share $273,564)

Key MSU Faculty: Irving Wyeth, Project Leader (Institute of International Agriculture); A. Wells, O. Taboada, and A. Howitt (Entomology)

Project Goals: To develop an improved research capability in Uruguay pertaining to fruit and vegetable production and marketing. This includes entomology, plant pathology, production economics, and agricultural information services. This goal is designed to achieve Uruguay's aim of increasing agricultural exports as a component of economic expansion.

Project Plans/Objectives: The project entailed two parts: Project A considered Development Planning and Administration, and Project B targeted Agricultural Production and Marketing. Each of these parts set their own objectives:

**Project A--Development Planning and Administration**

1. To increase the economic planning input of the Ministry of Agriculture's Planning Office and the National Planning Office in the decision making process for the agricultural sector by assisting in developing a permanent analytical and communicative capability to enable the continuing use of practical and theoretical economic analytical concepts necessary to develop policy issues and recommendations for the Government of Uruguay.

2. To develop production and planning guidelines by means of advanced and appropriate economic model analysis, for the major agricultural production enterprises in Uruguay, to be used in planning and evaluating both at the micro and macro economic levels.

3. To develop a macro analytical model to evaluate alternative government policies with respect to such things as a) the market impact of increased agricultural production, b) the effects on farm total and net income, c) the change in foreign exchange earnings, d) productivity of capital in alternative uses, and e) producer receptivity and adaptation rates for technology.

**Project B--Agricultural Production and Marketing**

To increase the capabilities of the MGA and other agencies to stimulate production and to improve marketing of agricultural products through a) the improvement of agricultural research, particularly in non-traditional crops, b) the development of those key ministry officials who, trained in modern production methods, understand their function in increasing agricultural outputs, and c) the promotion of improved coordination and the formulation of suitable agricultural policies to promote the efficiency of agricultural production.

**Cooperating Institutions:** Pennsylvania State University (lead institution), Texas A&M; the marketing body of the Government of Uruguay, SUL (national wool growers' association), CREA (a national private technical assistance organization of
1975 annual report is located in University Archives and Special Collections, Main Library.

Project Summary Comment: The research activities undertaken during the course of this project gave an excellent opportunity for on-the-job training of Uruguayan personnel in applied economic research directed at producers and policy makers. The activities involved many phases of applied research, including data collection from producers and technicians in the field, assembling of data, development of enterprise budgets, and formulating planning models at the micro and macro levels. Technicians were involved in computer analysis of data and publication of research results at the informative and technical levels. Research results were presented in a number of meetings and conferences to the Minister of Agriculture, producer groups, research and extension technical personnel, and in an international conference in Argentina. A list of publications can be found in the project documentation available from University Archives and Special Collections, Main Library.
URUGUAY AGRICULTURAL RESEARCH AND TECHNICAL ASSISTANCE

Donor: Agency for International Development loan to the Government of Uruguay
Contract No.: AID loan 528-T-024
Account No.: 71-3825
Location: Uruguay
Duration: December 1976-December 1981
Budget: $2,449,937 (MSU share $1,469,962)

Key MSU Faculty: Kim Wilson (Institute of International Agriculture); I. Wyeth
(Institute of International Agriculture); K. Lawton and N. Thompson (Crop & Soil
Science)

Project Goals: To assist in the development within the Ministry of Agriculture and
Fisheries a mechanism for expanding and improving the quality of applied agricul-
tural research and disseminating information to farmers. Such a mechanism will also
incorporate into and coordinate with a national network involving all public and
private agricultural agencies in a concentrated research and technical assistance
program to transfer applied technology to the farmer.

Project Plans/Objectives:
1. To design agricultural production systems for use in research-demonstration-
production units (UEDP) and pilot farms as described in the project.
2. To design technological packages for dissemination to public and private
agricultural agencies.
3. To produce publications and other media for public and private agencies and
farmer producers.
4. To more highly train technicians and farmers through short courses, seminars,
academic, and non-academic degree programs.
5. To produce additional research information.
6. To provide selected project supplies and equipment.

Cooperating Institutions: Ministry of Agriculture and Fisheries of the Government
of Uruguay; Pennsylvania State University, Texas A&M University, Virginia
Polytechnic Institute, UCIID (University Consortium for Inter-American Institutional
Development)

Location of Documentation: Project documents are available from Kim Wilson,
Institute of International Agriculture, 101 Agriculture Hall.

Project Summary Comment: Michigan State University was the prime contractor in a
consortium project with the above-named U.S. institutions. MSU assisted the
Ministry of Agriculture through development and testing of systems of agricultural
production; preparation of "technological packages" based on research, including
integrated research on UEDPs; evaluation of UEDPs; preparation, execution, and
evaluation of courses for farmers, leaders, and agricultural technicians; training
of host country nationals; and advice on current research programs and development
of new research based on needs. Additionally, the contract provided for more than
$2 million of scientific, training, and experiment station equipment to support
activities in the research-extension-farm production continuum.
VIETNAM POLICE AND PUBLIC ADMINISTRATION

Donor: International Cooperation Administration (forerunner of Agency for International Development)

Contract No.: Not available
Account No.: 71-2018
Location: Vietnam
Duration: 1955-1962
Budget: Not available

Key MSU Faculty: Ralph Smuckler (Dean, International Studies and Programs); Homer Higbee (Assistant Dean, International Studies and Programs)

Project Goals: To conduct training programs in the fields of public and police administration, including the establishment of training institutes, in-service training and research programs, assistance in administration improvement through training and consultation, and the development of a public administration library.


Location of Documentation: Project documents are located in University Archives and Special Collections, Main Library.

Project Summary Comment: Under a three-party contract between the International Cooperation Administration, the Government of Vietnam, and MSU, MSU cooperated with the National Institute of Administration in Saigon to develop a modern curriculum in Public Administration. MSU also cooperated with the Government of Vietnam in developing a National Police Training Academy. In addition to these two major activities, the staff did some consultation work with various government ministries, some credit teaching, in-service training, and research.

Approximately 50 people were in Saigon including administrative and clerical personnel. Some 150 Vietnamese nationals were employed with the project in Saigon. 20-30 Vietnamese nationals participated each year in special training programs lasting 9 months on the MSU campus. Subject matter fields covered in these programs included public administration, economics, public finance, and police administration. MSU also selected and sent to Vietnam appropriate public administration texts, library materials, and equipment.
WOMEN IN INTERNATIONAL DEVELOPMENT OFFICE
(TRAINING LEADERS FOR WOMEN IN INTERNATIONAL DEVELOPMENT)

Donor: Ford Foundation
Contract No.: 810-0681
Account No.: 71-4205
Location: MSU Campus
Duration: September 1981-August 1984
Budget: $100,000

Key MSU Faculty: Patricia Barnes-McConnell, Director (1981-84); Rita Gallin, Director (1984-present)

Project Goals: To provide opportunities for people from the U.S. and developing countries, especially women temporarily in the U.S., to become more effective participants in international development processes.

Project Plans/Objectives:
1. To provide Faculty-Scholar Awards in order that faculty might conduct research and/or incorporate women in international development issues into course curriculum.
2. To grant dissertation research stipends to MSU graduate students whose research directly relates to women in international development issues.
3. To conduct a workshop on Project Advisement to train both faculty and graduate students to assist project leaders in developing project proposals that include special attention to women in international development concerns.
4. To sponsor Organizational Interns (all women from developing countries).
5. To develop an MSU/WID Working Paper Series.

Cooperating Institutions: The WID office has created a broad network of interested persons and institutions, including WID organizations throughout the world.

Location of Documentation: Reports on activities sponsored by this grant can be obtained from the WID Office, 202 Center for International Programs.

Project Summary Comment: Since the 1950s when MSU became deeply involved in a broad spectrum of research and development activities in Asia, Africa, and Latin America, it has graduated a large number of development specialists. Few of these scholars and practitioners, however, were trained to understand the contribution of women to their families, communities, and societies, to conduct research about the roles and status of women in the midst of social change, or to design and implement development programs with women's interests in mind. In response to these omissions in training, the MSU Office of Women in International Development, under the terms of the grant awarded by the Ford Foundation, organized and coordinated an integrated effort to train leaders who would: 1) enhance research and scholarship on women in developing societies; and 2) address women's concerns in development programs.

The program was multi-faceted and involved the development of curricula and specialized workshops, the support of graduate student research and organizational internships for women from developing countries, and the dissemination of information about gender and development. These components were tailored to the particular
strengths of MSU and, although they comprised an integrated whole, each component had independent validity.

Although funding from Ford Foundation has ended, the WID office continues to produce publications in its Working Papers series and to advise faculty-project leaders on women’s concerns relating to development.
Donor: Agency for International Development  
Contract No.: AID-afr-C-1364  
Account No.: 71-2009  
Location: Sierra Leone  
Duration: October 1976-July 1978  
Budget: $32,934  

Key MSU Faculty: Dunstan Spencer, Principal Investigator (Agricultural Economics)  

Project Goals: To analyze the participation of women in the economic development process in West Africa, to identify barriers to their participation in development projects, and to determine policies that would lead to increased participation and increased benefits to women.  

Project Plans/Objectives: Using Sierra Leone data collected under contract AID/csd-3625, and a questionnaire developed on the MSU campus, the principal investigator travelled to Sierra Leone for approximately one month, gathered needed information, and returned to campus for the balance of the agreement. The collection and analysis of data were designed to meet the following objectives:  
1. To determine the quantity and seasonality of use of female labor in farm and non-farm enterprises, and the role of women as generators of rural household income.  
2. To examine the impact of agricultural development projects on the work done by women.  
3. To examine factors affecting rural-urban migration of women and their entry into the urban labor force.  
4. To examine the role of women in household decision making.  
5. To recommend policies and programs that would improve the economic well-being of rural women in Sierra Leone.  

Cooperating Institutions: Njala University College, University of Sierra Leone  

Location of Documentation: Project documents, final and semi-annual reports are located in the Agricultural Economics Project Office, 7 Agriculture Hall, J. Munn, Projects Administrator.  

Project Summary Comment: The main findings of this research are published by the Agricultural Economics Department as Working Paper No. 11, African Rural Employment/Economy Working Papers, under the title "African Women in Agricultural Development: A Case Study in Sierra Leone" by D. S. C. Spencer, April 1976. Copies may be obtained in the Agricultural Economics Project Office, 7 Agriculture Hall.
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**ZIMBABWE LINKAGES GRANT (TRAVEL GRANT)**

**Donor:** United States Information Agency  
**Contract No.:** IA-20798  
**Account No.:** 71-1986  
**Location:** Zimbabwe  
**Duration:** September 1983-August 1986  
**Budget:** $50,000

**Key MSU Faculty:** David Wiley, Director (African Studies Center)

**Project Goals:** To create a program of collaborative exchange for teaching, research, and extension between the University of Zimbabwe (UZ) and MSU.

**Project Plans/Objectives:**
1. To develop collaborative research projects between MSU and UZ scholars.
2. To provide facilities at MSU for Zimbabwean scholars and at UZ for MSU scholars for sabbatical and other field and library research.
3. To offer occasional short-term teaching by MSU faculty at UZ in order to release UZ scholars for research.
4. To increase the access of the UZ faculty and UZ library to U.S. institutions and resources.
5. To increase the knowledge of Zimbabwe by MSU scholars.
6. To participate jointly in the research basic to the socio-economic development of Zimbabwe.

**Cooperating Institutions:** University of Zimbabwe

**Location of Documentation:** Project documents are located in the African Studies Center, 100 Center for International Programs.

**Project Summary Comment:** Principal areas of collaboration stressed in the proposal include social studies, science, medicine, education, arts, agriculture, and the UZ library. At MSU, faculty from the following departments are to be involved: social science, James Madison, education, agriculture and natural resources, veterinary medicine, human medicine, osteopathic medicine, the African Studies Center, and the library. The collaboration is planned for an initial three-year period with ICA funding for air travel for MSU participants and air fare and salary supplementation of UZ participants. There is an option to extend this collaborative agreement beyond the initial three-year commitment.
ZIMMAN (ZIMBABWE MANPOWER DEVELOPMENT)

Donor: Institute for International Education with funds from the Agency for International Development

Contract No.: 613-0215-C-00-3005
Account No.: 71-4247
Location: Zimbabwe, MSU campus, and other U.S. Universities
Duration: January 1983-August 1984
Budget: $278,019

Key MSU Faculty: David Wiley, Director (African Studies Center)

Project Goals: To assist Zimbabwe to meet a significant portion of its requirements for specialized training by providing graduate and undergraduate education in the United States for nearly 300 Zimbabwean students under the auspices of the Ministry of Manpower Planning and Development emphasizing, primarily, training in agriculture, health, formal primary and secondary education, technical manpower development (engineering), and management training.

Project Plans/Objectives:
1. To provide orientation programs from one to twelve weeks for Zimbabwean students arriving in the U.S.
2. To provide mid-program workshops for all Zimbabwean students under ZIMMAN sponsorship.
3. To provide technical assistance to IIE on the most suitable institutions for placement of students in specialized fields.
4. To identify, orient, and send U.S. technical consultants to Zimbabwe for manpower development training programs.
5. To provide other technical backup assistance to the project as is desirable.

Cooperating Institutions: Zimbabwe Ministry of Manpower and the Institute for International Education

Location of Documentation: Project documents are located in the African Studies Center, 100 Center for International Programs.

Project Summary Comment: The facilities and expertise available to the African Studies Center were called upon to provide orientation to two groups of Zimbabwean students coming to the U.S. for further education. One mid-service conference was held in Washington, D.C., at which time it was determined that MSU participation was no longer required. By this time, IIE had set up an organizational infrastructure in Zimbabwe to take over many of the activities set forth in the original proposal. The former assistant to the Director of the African Studies Center at MSU was hired in Zimbabwe to administer the program. MSU participation officially ended in August 1984, although strong linkages to the Ministry of Manpower and the project administrator in Harare still remain.
APPENDIX A
COUNTRY INDEX

Angola
Strengthening African Agricultural Research

Antigua
Caribbean Agricultural Extension
Caribbean Technical Support to Mission

Argentina
Argentina--Graduate School of Agricultural Sciences--Castelar
Argentina College of Agriculture--Balcarce

Australia
Tropical Dry Forests of Northern Australia

Austria
Graduate Education Overseas

Bangladesh
Off Farm Employment--Rural Small Scale Industries
Pakistan Academies for Rural Development
Small Enterprise Approaches to Employment

Barbados
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)

Belgium
Graduate Education Overseas

Belize
Belize Livestock Feeds
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
4-H Rural Development Programs

Benin
Agricultural Economics Services--Sahel
Poor Rural Households
Sahel Zone Project in Africa

Bolivia
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (5)--Market Process in La Paz, Bolivia
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Off Farm Employment--Rural Small Scale Industries

Botswana
Alternative Rural Development Strategies (2)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Strengthening African Agricultural Research

Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Brazil--Audio Visual
Brazil--Graduate Agriculture Education
Brazil--Institution Building (Business Administration)
Brazil--School of Business Administration (Sao Paulo)
Center for Training in National and International Marketing (CICOM)
Consortium for the Development of Technology (CODOT)--Food Science Research
Diffusion of Agricultural Innovation
Food for Peace
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Physiological Efficiency and Plant Architecture in the Field Bean

Burkina Faso
Agricultural Economics Services--Sahel
Alternative Rural Development Strategies (1)
Animal Traction Study--Sahel
Cooperative Technical Assistance Program
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Zone Project in Africa
Strengthening African Agricultural Research

Burma
Burma Maize and Oilseeds

Cameroon
Alternative Rural Development Strategies (1)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Cameroon Centres for Farmer Family Training
Cooperative Technical Assistance Program
International Business Development

Cape Verde
Strengthening African Agricultural Research

Chad
Animal Traction Study--Sahel
Strengthening African Agricultural Research

Chile
Collaboration in Teaching and Research--Chile

Colombia
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (7)--Assistance to AID Mission/Colombia
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products
Colombia--College of Agriculture at Medellin and Palmira
Education In-Service Training
Graduate Education Overseas
Non-Formal Education (1)
Non-Formal Education (2)
Physiological Efficiency and Plant Architecture in the Field Bean
Power and Machinery Training Program
Small Enterprise Approaches to Employment (Housing Component)

Costa Rica
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (10)--Costa Rica Agricultural Marketing (3)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research Education In-Service Training
Latin American Agricultural Sector Analysis
Non-Formal Education (1)
Non-Formal Education (2)
Physiological Efficiency and Plant Architecture in the Field Bean
Rural Agricultural Program Management

Dominican Republic
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
4-H Rural Development Programs
Natural Resources Management

Ecuador
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Microcomputer Statistical Package (MSTAT)
Non-Formal Education (1)
Non-Formal Education (2)

Egypt
Food for Peace
Graduate Education Overseas
Off Farm Employment--Rural Small Scale Industries
Small Enterprise Approaches to Employment

El Salvador
Consortium for the Development of Technology (CODOT)--Food Science Research
Education In-Service Training
Non-Formal Education (1)
Non-Formal Education (2)
Physiological Efficiency and Plant Architecture in the Field Bean

England
Graduate Education Overseas

Ethiopia
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
Agricultural Mechanization in Africa
Cooperative Exchange Between Michigan State University and Addis Ababa University
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural Development Program--Ethiopia

Gambia
Agricultural Mechanization in Africa
Alternative Rural Development Strategies (2)
Animal Traction Study--Sahel
Cooperative Technical Assistance Program
Sahel Master's Degree Training--African Development/Rural Economy Program
Strengthening African Agricultural Research

Germany
Graduate Education Overseas

Ghana
Agricultural Mechanization in Africa
Poor Rural Households

Grenada
Caribbean Technical Support to Mission

Guatemala
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Consortium for the Development of Technology (CODOT)--Food Science Research
Education In-Service Training
Graduate Education Overseas
Guatemala Education--Programa Interuniversitario
Guatemalan Small Farmer Diversification: Pre-Project Design

Haiti
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)

Honduras
Alternative Rural Development Strategies (1)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Education In-Service Training
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Off Farm Employment--Rural Small Scale Industries

Hong Kong
Graduate Education Overseas

India
Diffusion of Agricultural Innovation
Food for Peace
Indian Engineering

Indonesia
Indonesia Non-Formal Education
Indonesian Higher Agricultural Education Improvement
Indonesian Higher Education
Graduate Education Overseas
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Pond Dynamics Collaborative Research Support Program (CRSP)
Post-Production Technology--Rice Losses in Indonesia
Small Enterprise Approaches to Employment

Iran
Iran Film Series (NIRT)

Ivory Coast
Agricultural Mechanization in Africa
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
International Business Development
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Jamaica
Comprehensive Resource Information and Evaluation System (CRIES)
Non-Formal Education (1)
Non-Formal Education (2)
Off Farm Employment--Rural Small Scale Industries

Japan
Graduate Education Overseas
Mie University Exchange
Performance Testing of Japanese Power Disk

Kenya
Agricultural Mechanization in Africa
Alternative Rural Development Strategies (2)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Comprehensive Resource Information and Evaluation System (CRIES)
International Business Development
Small Enterprise Approaches to Employment (Housing Component)

Korea
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean
Agricultural Sector Simulation Model
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)
Agricultural Sector Analysis and Simulation Projects (ASASP) (5)--Korean
Agricultural Simulation Advisory Services
Food for Peace
Graduate Education Overseas

Lesotho
Alternative Rural Development Strategies (2)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Strengthening African Agricultural Research

Liberia
Graduate Education Overseas
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Madagascar
Alternative Rural Development Strategies (2)

Malawi
Alternative Rural Development Strategies (2)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)
Genetic, Agronomic and Socio-cultural Analysis of Diversity Among Bean
Landraces
Microcomputer Statistical Package (MSTAT)
Strengthening African Agricultural Research
Malaysia
   Graduate Education Overseas
   Peace Corps Intern Training

Mali
   Animal Traction Study--Sahel
   Food Security in Africa Cooperative Agreement
   Microcomputer Statistical Package (MSTAT)
   Non-Formal Education (4)
      Non-Formal Education Network--NFE Network Amendment--Women in Development
   Sahel Master's Degree Training--African Development/Rural Economy Program
   Strengthening African Agricultural Research

Mauritania
   Alternative Rural Development Strategies (1)
   Animal Traction Study--Sahel
   Sahel Master's Degree Training--African Development/Rural Economy Program
   Strengthening African Agricultural Research

Mexico
   Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
   Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
      Improving Resistance to Environmental Stress in Beans Through Genetic
      Selection for Carbohydrate Partitioning and Efficiency of Biological
      Carbon Fixation
   Education In-Service Training
   Graduate Education Overseas
   Mexican Packaging Industry
   Natural Resources Development Doctoral Program
   Nutrition of Cattle in the Mexican Tropics
   Physiological Efficiency and Plant Architecture in the Field Bean

Montserrat
   Caribbean Agricultural Extension
   Caribbean Technical Support to Mission

Mozambique
   Alternative Rural Development Strategies (2)
   Strengthening African Agricultural Research

Nepal
   Nepal Institute of Agriculture and Animal Science
   Non-Formal Education (1)
   Non-Formal Education (2)
   Peace Corps Intern Training

The Netherlands
   Graduate Education Overseas

Nicaragua
   Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research Education In-Service Training
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Niger
Agricultural Economics Services--Sahel
National Institute of Agricultural Research--Niger (INRAN)
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Zone Project in Africa
Strengthening African Agricultural Research

Nigeria
Agricultural Mechanization in Africa
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children
Consortium for the Study of Nigerian Rural Development (CSNRD)
Diffusion of Agricultural Innovation
International Business Development
Peace Corps/MSU Master's in Education
Rural Employment in Tropical Africa: A Network Approach (1)
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (4)--Accelerated Food Production and Employment in Kwara State
University of Nigeria--Nsukka

Okinawa
Graduate Education Overseas
University of Ryukyus, Okinawa

Pakistan
Alternative Rural Development Strategies (1)
Food for Peace
Non-Formal Education (1)
Non-Formal Education (2)
Pakistan Academies for Rural Development
Small Enterprise Approaches to Employment (Housing Component)

Panama
Graduate Education Overseas
Physiological Efficiency and Plant Architecture in the Field Bean

Paraguay
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Peru

Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Physiological Efficiency and Plant Architecture in the Field Bean
Small Enterprise Approaches to Employment
Small Enterprise Approaches to Employment (Housing Component)

Phillipines

Alternative Rural Development Strategies (2)
Asian Small Farmers
Graduate Education Overseas
Integrated Agricultural Production and Marketing
Microcomputer Statistical Package (MSTAT)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Peace Corps Intern Training
Small Enterprise Approaches to Employment

Puerto Rico

A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
Graduate Education Overseas

St. Kitts/Nevis

Caribbean Agricultural Extension
Caribbean Technical Support to Mission

St. Lucia

Alternative Rural Development Strategies (2)
Caribbean Agricultural Extension
Caribbean Technical Support to Mission

St. Vincent

Caribbean Agricultural Extension
Caribbean Technical Support to Mission

Senegal

Agricultural Economics Services--Sahel
Agricultural Mechanization in Africa
Alternative Rural Development Strategies (1)
Animal Traction Study--Sahel
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Food Security in Africa Cooperative Agreement
Microcomputer Statistical Package (MSTAT)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Sahel Master's Degree Training--African Development/Rural Economy Program
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training
Strengthening African Agricultural Research

Sierra Leone
Consumption (Nutrition) Effects of Economic Policy
Off Farm Employment--Rural Small Scale Industries
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (1)
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (5)
Small Scale Industry/Urban Employment
Women's Participation in Development--Female Participation in West Africa

Singapore
Graduate Education Overseas

Somalia
Alternative Rural Development Strategies (1)
Cooperative Technical Assistance Program
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research Stations in Somalia

Spain
Graduate Education Overseas

Sri Lanka
Small Enterprise Approaches to Employment
Small Enterprise Approaches to Employment (Housing Component)

Sudan
Abdominal Ultrasound Studies in Patients with Schistosomiasis and Other Liver Diseases
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
Alternative Rural Development Strategies (2)
Antigenic Analyses of Cultured Plasmodium Falciparum
Collaborative Research on Parasitic Diseases in Sudan (1)
Collaborative Research on Parasitic Diseases in Sudan (2)

Swaziland
Alternative Rural Development Strategies (2)
Strengthening African Agricultural Research

Syria
Comprehensive Resource Information and Evaluation System (CRIES)
Taiwan
Graduate Education Overseas
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

Tanzania
Agricultural Mechanization in Africa
Alternative Rural Development Strategies (2)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Evaluation and Operation of Agricultural Marketing Boards
Group Projects Abroad to Africa
Strengthening African Agricultural Research

Thailand
Graduate Education Overseas
Non-Formal Education (3)
Off Farm Employment--Rural Small Scale Industries
Peace Corps Intern Training
Thailand Educational Planning
Thailand Review of Agricultural Education, Research, and Extension Programs

Togo
Sahel Master's Degree Training--African Development/Rural Economy Program

Tunisia
Food for Peace
Small Enterprise Approaches to Employment (Housing Component)

Turkey
Graduate Education Overseas
National Educational Research & Planning (NERP)--Turkey

Uganda
Agricultural Mechanization in Africa

Uruguay
Uruguay Agricultural Production and Marketing
Uruguay Agricultural Research and Technical Assistance

Venezuela
Physiological Efficiency and Plant Architecture in the Field Bean

Vietnam
Vietnam Police and Public Administration

Zambia
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
Small Enterprise Approaches to Employment
Small Enterprise Approaches to Employment (Housing Component)
Strengthening African Agricultural Research
Zimbabwe
  Alternative Rural Development Strategies (1)
  Alternative Rural Development Strategies (2)
  Food Security in Africa Cooperative Agreement
  Group Projects Abroad to Africa
  International Business Development
  Microcomputer Statistical Package (MSTAT)
  Strengthening African Agricultural Research
  University of Zimbabwe Faculty Expansion
  Zimbabwe Linkages Grant (Travel Grant)
  ZIMMAN (Zimbabwe Manpower Development)
APPENDIX B

KEY MSU FACULTY INDEX

Abkin, M. (Systems Science)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (5)--Korean
Agricultural Simulation Advisory Services
Agricultural Sector Analysis and Simulation Projects (ASASP) (6)--IIASA World Food & Agriculture Model and Computer Program

Adams, Wayne (Crop & Soil Science)
Argentina College of Agriculture--Balcarce
Bean/Cowpea Collaborative Research Support Program--Planning Unit (1)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic, Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
Improving Resistance to Environmental Stress in Beans Through Genetic Selection for Carbohydrate Partitioning and Efficiency of Biological Nitrogen Fixation
Physiological Efficiency and Plant Architecture in the Field Bean

Albrecht, C. (Agricultural Engineering)
Colombia--College of Agriculture at Medellin and Palmira

Alexander, Roy (Agricultural Economics)
University of Ryukyus, Okinawa

Alleman, Brooks, J. (Teacher Education)
Strategies for Strengthening International Aspects of Teacher Education

Asher, J. (Zoology)
Indonesian Higher Education

Andrews, M. (International Extension Training Programs)
Cooperative Technical Assistance Program
Farming Systems Support
Feeding the World: International Interdependence

Artis, J. (Sociology)
Farming Systems Support
Strengthening African Agricultural Research

Atwood, D.
Cameroon Centres for Farmer Family Training

Axinn, George (Agricultural Economics)
Center for Advanced Studies in International Development (CASID) (Center Grant)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network NFE--Network Amendment--Women in Development
Thailand Review of Agricultural Education, Research, and Extension Programs

Axinn, N. (Non-formal Education)
Nepal Institute of Agriculture and Animal Science

Aylsworth, John (4-H Office)
4-H Rural Development Programs

Bain, Jack (Communications)
University of Nigeria--Nsukka

Barnes-McConnell, Patricia (Women In Development/Bean/Cowpea CRSP)
Bean/Cowpea Collaborative Research Support Program--Planning Unit (1)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic, Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Women in International Development Office (Training Leaders for Women in International Development)

Barrett, V. (Livestock & Range Management)
Integrated Agricultural Production and Marketing

Baucom, W. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (10)--Costa Rica Agricultural Marketing (3)

Bennett, J. (Pharmacology & Toxicology)
Abdominal Ultrasound Studies in Patients with Schistosomiasis and Other Liver Diseases
Collaborative Research on Parasitic Diseases in Sudan (1)

Berlo, D. (Communications)
Communications Seminars/Workshops

Bernsten, R. (Agricultural Economics)
Food Security in Africa Cooperative Agreement
Microcomputer Statistical Package (MSTAT)

Bettinghouse, E. (Communications)
Communications Seminars/Workshops

Bingen, J. (Agricultural Economics)
Cameroon Centres for Farmer Family Training
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Sahel Master's Degree Training--African Development/Rural Economy Program
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training

Bird, H. (Animal Science)
Nepal Institute of Agriculture and Animal Science

Bittenbender, H. (Horticulture)
Farming Systems Support
Indonesian Higher Agricultural Education Improvement
Nepal Institute of Agriculture and Animal Science

Bobbitt, F. (Agricultural Education)
Caribbean Agricultural Extension
Indonesian Higher Agricultural Education Improvement

Bonhorst, Ben (Teacher Education)
National Educational Research & Planning (NERP)--Turkey

Bortel-Doku, E. (Sociology)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic, Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces

Borus, M. (Labor and Industrial Relations)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Boyd, James (Agricultural Economics)
University of Nigeria--Nsukka

Bratton, M. (Political Science)
Alternative Rural Development Strategies (1)

Braun, Norwin
University of Nigeria--Nsukka

Brembeck, Cole (Institute of International Studies in Education)
National Educational Research & Planning (NERP)--Turkey
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Pakistan Academics for Rural Development
Thailand Educational Planning

Bright, Noble
University of Nigeria--Nsukka

Bronstein, L. (Environmental Law)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Brown, Norman (4-H Office)
4-H Rural Development Programs
Buccola, S. (Agricultural Economics)
Food Security in Africa Cooperative Agreement
University of Zimbabwe Faculty Expansion

Buie, T.R. (Agricultural Education)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

Burkhardt, Thomas (Agricultural Engineering)
Performance Testing of Japanese Power Disk

Burns, F. (Communications)
Communications Seminars/Workshops

Burton, T. (Zoology)
Natural Resources Management

Buschman, Melvin (Educational Administration)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Strategies for Strengthening International Aspects of Teacher Education
University of Nigeria--Nsukka

Byerlee, D. (Agricultural Economics)
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (2)

Cabaniss, Joseph
University of Nigeria--Nsukka

Campbell, David (Geography)
Alternative Rural Development Strategies (1)

Campbell, Douglas (Teacher Education)
Strategies for Strengthening International Aspects of Teacher Education

Cargill, Burton
University of Nigeria--Nsukka

Carolus, Robert
University of Nigeria--Nsukka

Carroll, T. (Systems Science/CASID)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean
Agricultural Sector Simulation Model
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
National Institute of Agricultural Research--Niger (INRAN)
Case, Harry
National Educational Research & Planning (NERP)--Turkey

Chang, Jerry
University of Nigeria--Nsukka

Chapman, K. (Entomology)
Nepal Institute of Agriculture and Animal Science

Chappelle, D. (Resource Economics)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Development Doctoral Program

Chenoweth, W. (Food Science & Human Nutrition)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children

Cherney, Sheldon (Lifelong Education)
Graduate Education Overseas
University of Nigeria--Nsukka

Claffey, Joan (College of Education)
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Cohen, Warren (Asian Studies Center)
Chinese Language Fellowship Grant
Luce Fund for Chinese Scholars
Training Scholars from Sichuan

Combs, W. (Animal Science)
Nepal Institute of Agriculture and Animal Science

Cook, Ray (Crop & Soil Science)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

Cook, Robert (Dairy Science)
Nutrition of Cattle in the Mexican Tropics

Cooper, C. (Chemical Engineering)
Indian Engineering

Coppel, H. (Entomology)
Nepal Institute of Agriculture and Animal Science

Crawford, E. (Agricultural Economics)
Food Security in Africa Cooperative Agreement
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training
Crofts, Marylee (African Studies Center)
Foreign Curriculum Consultant Grant
Group Projects Abroad to Africa
Strategies for Strengthening International Aspects of Teacher Education

Culver, D. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)

Davis, Richmond
University of Nigeria--Nsukka

Dawson, L. (Food Science and Human Nutrition)
Consortium for the Development of Technology (CODOT)--Food Science Research

Deans, Robert (Animal Science)
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Alternative Rural Development Strategies (1)
Belize Livestock Feeds
Caribbean Agricultural Research & Development Institute (CARDI)
Guatemalan Small Farmer Diversification: Pre-Project Design
Nepal Institute of Agriculture and Animal Science
University of Nigeria--Nsukka

deBenko, E. (International and Africana Library)
Sahel Secretariat and Documentation Center (I and II)

Dennis, F. (Horticulture)
Guatemalan Small Farmer Diversification: Pre-Project Design

Dike, George (Agricultural Economics)
Consortium for the Study of Nigerian Rural Development (CSNRD)

Doane, Charles Jr.
University of Nigeria--Nsukka

Doctoroff, M. (Business)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil

Donohue, R. I. (Crop & Soil Science)
Agricultural Mechanization in Africa

Dorsey, L. (Sahel Documentation Center)
Sahel Secretariat and Documentation Center (I and II)

Downes, T. (Packaging)
Mexican Packaging Industry

Doyle, Louis (Higher Educational Administration)
Non-Formal Education (1)
Non-Formal Education (3)
University of Nigeria--Nsukka

Drew William (Botany & Plant Pathology)
Argentina College of Agriculture--Balcarce
Indonesian Higher Agricultural Education Improvement
Thailand Review of Agricultural Education, Research, and Extension Programs

Driskell, S. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)

Druse, Joseph (Humanities)
University of Nigeria--Nsukka

Duvick, R. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)

Dwyer, David (Anthropology)
African Languages
African Studies Center (Fellowships Grant)

Dyer, Delwyn
University of Nigeria--Nsukka

Edwards, Alfred
University of Nigeria--Nsukka

Elcher, Carl (Agricultural Economics)
Agricultural Economics Services--Sahel
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
Consortium for the Study of Nigerian Rural Development (CSNRD)
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
National Institute of Agricultural Research--Niger (INRAN)
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (1)
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural Development Program--Ethiopia
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Sahel Zone Project in Africa
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training
University of Nigeria--Nsukka

Ekert, Ian (Electrical Engineering)
Indian Engineering

Elliot, Jack
Enslin, B. (Center for Remote Sensing)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Erickson, Earl (Soil Science)
Argentina--Graduate School of Agricultural Sciences--Castelar

Erlandson, Forrest (Counselling)
University of Ryukyu, Okinawa

Esmay, Merle (Agricultural Engineering)
Caribbean Agricultural Research & Development Institute (CARDI)
Farming Systems Support
Indonesian Higher Agricultural Education Improvement
Institutionalization of the Facultad de Agronomia at Balcarce, Argentina
Mie University Exchange
Post-Production Technology--Rice Losses in Indonesia
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

Everson, E. (Crop & Soil Science)
Alternative Rural Development Strategies (1)
Microcomputer Statistical Package (MSTAT)
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research
Stations in Somalia
University of Zimbabwe Faculty Expansion

Ezera, Onuma (International and Africana Library)
Sahel Secretariat and Documentation Center (I and II)

Farace, V. (Communications)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (3)--Market Processes in the Recife Area of Northeast Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (4)--Market Process in La Paz, Bolivia

Featherstone, R. (Education Administration)
Education In-Service Training

Fell, Richard (Counselling)
University of Ryukyu, Okinawa

Ferguson, Leroy (Political Science)
University of Nigeria--Nsukka

Ferguson, Lloyd
University of Nigeria--Nsukka

Ferns, George (Teacher Education)
University of Nigeria--Nsukka
Ferver, J.C. (Agricultural Extension)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

Fienup, Darrell (Agricultural Economics)
Agricultural Economics Training Strategies
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
Farming Systems Support
Latin American Agricultural Sector Analysis (Planning and Policy Analysis Network)
Nepal Institute of Agriculture and Animal Science
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training

Flores, Robert
University of Nigeria--Nsukka

Fisseka, Y. (Agricultural Economics)
Off Farm Employment--Rural Small Scale Industries

Floyd, Barry
University of Nigeria--Nsukka

Freed, Russell (Crop & Soil Science)
Alternative Rural Development Strategies (1)
Farming Systems Support
Microcomputer Statistical Package (MSTAT)

Freeman, V. (Animal Husbandry)
Colombia--College of Agriculture at Medellin and Palmira

Fritz, George (Housing & Food Services)
University of Nigeria--Nsukka

Frost, C. (Psychology)
Brazil--School of Business Administration (Sao Paulo)
University of Nigeria--Nsukka

Gallin, Rita (Women in International Development)
Women in International Development Office (Training Leaders for Women in International Development)

Galvin, D. (Educational Psychology)
University Center for International Rehabilitation

Giacin, J. (Packaging)
Mexican Packaging Industry

Gomez, F. (Social Science)
Natural Resources Management

Gold, M. (Forestry)
Comprehensive Resource Information and Evaluation System (CRIES)
Grandstaff, M. (Secondary Education & Curriculum)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Greenbaum, D. (Medicine)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children

Gunkel, Wesley
University of Nigeria--Nsukka

Gunter, J. (Forestry)
Natural Resources Management

Guthrie C. (Marketing & Transportation)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur

Haines, James
University of Nigeria--Nsukka

Hall, Oliver (Social Science)
University of Nigeria--Nsukka

Haller, A. (Sociology)
Food for Peace

Hammarskjold, Ed.
University of Nigeria--Nsukka

Hanratty, M. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)

Hansen, C. (Agricultural Engineering)
Colombia--College of Agriculture at Medellin and Palmira
Mie University Exchange

Hansen, G. (Biochemistry)
Food for Peace

Hanson, John (Administration & Curriculum)
University of Nigeria--Nsukka

Harpstead, Dale (Crop & Soil Science)
Bean/Cowpea Collaborative Research Support Program--Planning Unit (1)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Strengthening African Agricultural Research
Harrell, G. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)

Harrison, Carter (Crop & Soil Science)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

Harrison, K. (Agricultural Economics)
Center for Training in National and International Marketing (CICOM)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (10)--Costa Rica Agricultural Marketing (3)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products

Hart, J. (Forestry)
Natural Resources Development Doctoral Program

Harte, B. (Packaging)
Mexican Packaging Industry

Hatch, Raymond (Counselling)
Thailand Educational Planning
University of Ryukyus, Okinawa

Hawley, William
University of Nigeria--Nsukka

Hay, George
University of Nigeria--Nsukka

Hayenga, M.L. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research

Hedrick, T. (Food Science & Human Nutrition)
Consortium for the Development of Technology (CODOT)--Food Science Research Indonesian Higher Agricultural Education Improvement
Non-Formal Education (2)
Non-Formal Education (3)
Thailand Educational Planning

Henderson, Hugh
University of Nigeria--Nsukka

Henderson, John
African Studies Center (Center Grant)
University of Nigeria--Nsukka

Henley, D. (Marketing)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (5)--Market Process in La Paz, Bolivia

Herbert, P. (Forestry)
Colombia--College of Agriculture at Medellin and Palmira

Hereford, K.T.
Guatemala Education--Programa Interuniversitario

Herner, R. (Horticulture)
University of Zimbabwe Faculty Expansion

Herzog, W. (Communications/Data Processing)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Rural Agricultural Program Management
Somalia Research Projects and Staff Programs

Higbee, H. (Political Science)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Vietnam Police and Public Administration

Hill, Mozell
University of Nigeria--Nsukka

Hoefler, Jacob (Animal Husbandry)
Argentina College of Agriculture--Balcarce

Hooker, W. (Plant Pathology)
Indonesian Higher Agricultural Education Improvement

Horwood, Russell (Agricultural Economics)
University of Ryukyu, Okinawa

Hosfield, G. (Crop & Soil Science)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Howitt, A. (Entomology)
Uruguay Agricultural Production and Marketing

Hudson, D. (Center for Remote Sensing)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Hunter, J. (Agricultural Economics)
Agricultural Economics Services--Sahel
Brazil--Graduate Agriculture Education

Hunter J. (Geography/Community Health Science)
African Studies Center (Center Grant)
Collaborative Research on Parasitic Diseases in Sudan (1)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Imamura, S. (English as a Second Language)
Indonesian Higher Agricultural Education Improvement

Ishino, Iwao (Anthropology)
University of Ryukyus, Okinawa

Isleib, D. (Institute of International Agriculture)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Farming Systems Support
Microcomputer Statistical Package (MSTAT)

Issari, M. (Telecommunications)
Iran Film Series (NRT)

Ivey, J. (Administration & Higher Education)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Jackson, Jack F.
Brazil--School of Business Administration (Sao Paulo)

James, L. (Forestry)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management
Thailand Review of Agricultural Education, Research, and Extension Programs

Jensen, J. (Parasitology, Microbiology and Public Health)
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
Antigenic Analyses of Cultured Plasmodium Falciparum
Collaborative Research on Parasitic Diseases in Sudan (1)
Collaborative Research on Parasitic Diseases in Sudan (2)

Johnson, J. (Animal Husbandry)
Johnson, George  
University of Nigeria--Nsukka

Johnson, Glenn (Agricultural Economics)  
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research  
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis  
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean Agricultural Sector Simulation Model  
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)  
Consortium for the Study of Nigerian Rural Development (CSN RD)  
Evaluation and Operation of Agricultural Marketing Boards

Joyce, W. (Teacher Education)  
Strategies for Strengthening International Aspects of Teacher Education

Kakela, P. (Resource Development)  
Natural Resources Management

Kamuanja, M. (Agricultural Economics)  
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training

Kaneene, J. (Large Animals Surgery/Medicine/Community Health Sciences)  
Collaborative Research on Parasitic Diseases in Sudan (1)  
Collaborative Research on Parasitic Diseases in Sudan (2)

Kaplan, P. (Rural Development/Sociology)  
Nepal Institute of Agriculture and Animal Science

Kaufman, Charles (Cooperative Extension)  
University of Nigeria--Nsukka

Kelley, Miriam (Extension Home Economics)  
University of Nigeria--Nsukka

Kelly, J. (Horticulture)  
Guatemalan Small Farmer Diversification: Pre-Project Design

Kevern, N. (Fisheries & Wildlife)  
Pond Dynamics Collaborative Research Support Program (CRSP)

Khan, A. (Agricultural Economics)  
Alternative Rural Development Strategies (1)

Kielbaso, J. (Forestry)  
Peace Corps Intern Training

King, Thomas (Anthropology)
Kleis, R. (Administration & Higher Education)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Kilne, C.K. (Agricultural Engineering)
Agricultural Mechanization in Africa

Koelling, M. (Forestry)
Natural Resources Management

Koening, H. (Systems Science)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico

Kolasa, K. (Family & Child Ecology)
Consumption (Nutrition) Effects of Economic Policy

Konrad, Zinta (African Studies Center)
International Business Development

Koo, A. (Economics)
Consumption (Nutrition) Effects of Economic Policy

Kramer, John
University of Nigeria--Nsukka

Kriesel, H. (Agricultural Economics)
Agricultural Economics Services--Sahel
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)
Alternative Rural Development Strategies (1)
Consortium for the Study of Nigerian Rural Development (CSNRD)
Evaluation and Operation of Agricultural Marketing Boards
Off Farm Employment--Rural Small Scale Industries
University of Nigeria--Nsukka

Kuhn, Barnard D. (Agricultural Economics)
University of Ryukyu, Okinawa

Kyle, Leonard (Agricultural Economics)
Argentina College of Agriculture--Balcarce
Colombia--College of Agriculture at Medellin and Palmira
Guatemalan Small Farmer Diversification: Pre-Project Design

Larson, D. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur

Natural Resources Management
Larson, G. (Geology)  
Natural Resources Management

Larzelere, H. (Agricultural Economics)  
Evaluation and Operation of Agricultural Marketing Boards

Lassiter, G. (Economics)  
Integrated Rural Development (Eastern Ord, Upper Volta–Burkina Faso)

Lauer, J. (Sahel Documentation Center)  
Sahel Secretariat and Documentation Center (I and II)

Laughlin, Charles, (Office of Academic and Student Affairs)  
Peace Corps Intern Training

Laurent, C.K. (Agricultural Economics)  
Consortium for the Study of Nigerian Rural Development (CSNRD)

Lawrence, Elwood  
University of Nigeria–Nsukka

Lawson, Edward  
University of Nigeria–Nsukka

Lawton, Kirkpatrick (Crop & Soil Science)  
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement  
Argentina–Graduate School of Agricultural Sciences–Castelar  
Brazil–Graduate Agriculture Education  
Colombia–College of Agriculture at Medellin and Palmira  
Food for Peace  
Indonesian Higher Agricultural Education Improvement  
University of Zimbabwe Faculty Expansion  
Uruguay Agricultural Research and Technical Assistance

Leid, R.E. (Pathology/Vet Clinic Immunology Lab)  
Collaborative Research on Parasitic Diseases in Sudan (1)

Levine, S.J. (Education Administration)  
Indonesia Non-Formal Education  
Non-Formal Education (3)

Lewis, Richard (Physical Plant)  
University of Nigeria–Nsukka

Libby, J. (Entomology)  
Nepal Institute of Agriculture and Animal Science

Libby, L. (Resource Policy)  
Comprehensive Resource Information and Evaluation System (CRIES)  
Natural Resources Management

Liedholm, C. (Agricultural Economics)  
Employment and Enterprise
Off Farm Employment--Rural Small Scale Industries
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (2)
Small Enterprise Approaches to Employment
Small Scale Industry/Urban Employment
University of Nigeria--Nsukka

Lindquist, William
University of Nigeria--Nsukka

Lipsey, M. (Center for Cartography & Spatial Analysis)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Lockhart, H. (Packaging)
Mexican Packaging Industry

Lubkin, J. (Civil & Sanitary Engineering)
Indonesian Higher Education

Lucas, R.E. (Crop & Soil Science)
Agricultural Mechanization in Africa

Luecke, R. (Biochemistry)
Food for Peace

Lumianski, Robert
University of Nigeria--Nsukka

Lusch, D. (Center for Remote Sensing)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Lyle, Clay (Entomology)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

MacFarlane, David
University of Nigeria--Nsukka

Mackson, C. (Packaging)
Mexican Packaging Industry

Magee, W. (Animal Science)
University of Zimbabwe Faculty Expansion

Manderscheid, L. (Agricultural Economics)
Agricultural Mechanization in Africa
National Institute of Agricultural Research--Niger (INRAN)
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Senegal Agricultural Research and Planning Project Design, Senegal Technical
Services/Training
Manetsch, T. (Systems Science)
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean Agricultural Sector Simulation Model

Mangum, F. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)

Markakis, P. (Food Science & Human Nutrition)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children

Martin, E.
Indonesian Higher Agricultural Education Improvement
University of Nigeria--Nsukka

Mason, R. (Marketing & Transportation)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil

Matlon, P. (Agricultural Economics)
Agricultural Economics Services--Sahel
Animal Traction Study--Sahel
Consumption (Nutrition) Effects of Economic Policy
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)

McColly, Howard, (Agricultural Engineering)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

McKee, Robert
University of Nigeria--Nsukka

McNabb, C. (Fisheries & Wildlife)
Indonesian Higher Agricultural Education Improvement
Pond Dynamics Collaborative Research Support Program (CRSP)

McNelly, J. (Communications)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico

McMillan, Don (Residence Halls)
University of Nigeria--Nsukka

Mead, D. (Agricultural Economics)
Employment and Enterprise
Off Farm Employment--Rural Small Scale Industries
Small Enterprise Approaches to Employment
University of Ryukyu, Okinawa
Meaders, Donald (Agricultural Education)
Caribbean Agricultural Extension
Nepal Institute of Agriculture and Animal Science
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

Meadows, C. (Dairy Cattle Management)
Indonesian Higher Agricultural Education Improvement

Medaski, Frank (Partners of the Americas)
4-H Rural Development Programs

Mehretu, A. (Geography)
Agricultural Economics Services--Sahel
Alternative Rural Development Strategies (1)
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural
Development Program--Ethiopia

Melnick, S. (Teacher Education)
Strategies for Strengthening International Aspects of Teacher Education

Menegay, M. (Agricultural Economics)
Off Farm Employment--Rural Small Scale Industries

Middleton, R. (Rural Development/Sociology)
Nepal Institute of Agriculture and Animal Science

Miller, E. (Animal Husbandry)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

Minkel, C. (International Studies and Programs)
Indonesian Higher Agricultural Education Improvement

Mokma, D. (Soil Science)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management
Strengthening of the Central Agricultural Research Station and Regional Research
Stations in Somalia

Moore, George
University of Nigeria--Nsukka

Morsberger, Robert
University of Nigeria--Nsukka

Morton, Jesse
University of Nigeria--Nsukka

Murphey, P. (Botany & Plant Pathology)
Tailand--Rural Development of Northern Australia
Navarro, R. (Teacher Education)
Strategies for Strengthening International Aspects of Teacher Education

Neff, Kenneth (Teacher Education)
National Educational Research & Planning (NERP)--Turkey
Thailand Educational Planning

Nelson, Ronald (Animal Science)
Argentina College of Agriculture--Balcarce

Nelson, W. (Farm Management)
Nepal Institute of Agriculture and Animal Science

Newland, H. (Animal Husbandry)
Colombia--College of Agriculture at Medellin and Palmira

Newman, M. (Agricultural Economics)
Senegal Agricultural Research and Planning--Project Design, Senegal Technical Services/Training

Newson, H. (Entomology, Microbiology and Public Health)
Collaborative Research on Parasitic Diseases in Sudan (1)

Niehoff, R. O. (Administration & Higher Education)
Guatemala Education--Programa Interuniversitario
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Pakistan Academics for Rural Development

Niemeyer, Roy
University of Nigeria--Nsukka

Noble, C. (Institute of International Business Management Studies)
Brazil--Institution Building (Business Administration)

Nothstine, Leo (Civil & Sanitary Engineering)
Indian Engineering

Oberg, W. (Management)
Rural Agricultural Program Management

Packard, Philip
University of Nigeria--Nsukka

Paolucci, B. (Family & Child Ecology)
Thailand Review of Agricultural Education, Research, and Extension Programs

Payne, Kenyon
University of Nigeria--Nsukka

Pearson, A. (Food Science & Human Nutrition)
Consortium for the Development of Technology (CODOT)--Food Science Research
Perkins, Maurice (Agricultural Engineering)
Food for Peace
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)

Perry, Benjamin
University of Nigeria--Nsukka

Pettigrove, H. (Crop & Soil Science)
Colombia--College of Agriculture at Medellin and Palmira

Pettit, Lincoln
University of Nigeria--Nsukka

Pigozzi, M. (College of Education)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development

Premo, B. (Fisheries & Wildlife)
Pond Dynamics Collaborative Research Support Program (CRSP)

Price, J. (Food Science and Human Nutrition)
Consortium for the Development of Technology (CODOT)--Food Science Research

Purvis, M. (Agricultural Economics)
Consortium for the Study of Nigerian Rural Development (CSNRD)

Rainey, Mary (College of Education)
Non-Formal Education (3)

Ray, Rex
Nepal Institute of Agriculture and Animal Science
University of Nigeria--Nsukka

Ricks, D. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (8)--Costa Rica Agricultural Marketing (1)

Riley, H. (Agricultural Economics)
Agricultural Economics International Training & Research (211-d)
Agricultural Economics Training Strategies
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (5)--Korean
Agricultural Simulation Advisory Services
Center for Training in National and International Marketing (CICOM)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (1)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (7)--Assistance to AID Mission/Colombia
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products
Comprehensive Resource Information and Evaluation System (CRIES)
Food Security in Africa Cooperative Agreement
Latin American Agricultural Sector Analysis (Planning and Policy Analysis Network)
Natural Resources Management

Roberts, Paul (Institute of International Agriculture)
Title XII Strengthening Grant

Robertson, L. (Crop & Soil Science)
Colombia--College of Agriculture at Medellin and Palmira
Indonesian Higher Agricultural Education Improvement

Rogers, Everett (Communications)
Diffusion of Agricultural Innovation

Rossmiller, G. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean Agricultural Sector Simulation Model
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)

Rudolph, V. (Forestry)
Natural Resources Management

Sadoff, H. (Microbiology & Public Health)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children

Sarbaugh, L. (Communications)
Communications Seminars/Workshops

Savitt, R. (Marketing & Transportation Administration)
International Business Development

Schillhorn-van-Veen T W (Animal Health Diagnostic Laboratory)
Schmidt, P. (Economics)
Consumption (Nutrition) Effects of Economic Policy

Schuller, Charles (Education)
Brazil--Audio Visual

Schultink, G. (Resource Development)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management

Schwarzweller, H. (Sociology)
Nepal Institute of Agriculture and Animal Science

Schwille, J. (Teacher Education)
Strategies for Strengthening International Aspects of Teacher Education

Schwindell, K. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)

Scotton, Carol (Linguistics)
African Languages
African Studies Center (Fellowships Grant)

Seelye, Dean Alfred
Brazil--School of Business Administration (Sao Paulo)

Shaffer, J. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
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A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
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A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products
Food Security in Africa Cooperative Agreement
Off Farm Employment--Rural Small Scale Industries

Sheppard, Charles (Poultry Science)
Colombia--College of Agriculture at Medellin and Palmira
University of Nigeria--Nsukka

Shwedel, K. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (3)
Slater, Charles (Marketing & Transportation)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (5)--Market Process in La Paz, Bolivia

Smuckler, Ralph (International Studies and Programs)
Vietnam Police and Public Administration

Sorenson, V. (Agricultural Economics)
Rural Employment in Tropical Africa: A Network Approach (2)

Soutas-Little, Robert (Biomechanics)
Indian Engineering

Spencer, D. (Agricultural Economics)
Agricultural Economics Services--Sahel
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural Development Program--Ethiopia
Women's Participation in Development--Female Participation in West Africa

Staatz, J. (Agricultural Economics)
Food Security in Africa Cooperative Agreement
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training

Stavis, B. (Agricultural Economics)
Alternative Rural Development Strategies (1)
Stearns, Troy (Education & Curriculum)
University of Nigeria--Nsukka

Steffe, James (Agricultural Engineering)
Collaboration in Teaching and Research--Chile

Steinmiller, M. (Resource Development)
Natural Resources Development Doctoral Program

Stevens, T. (Forestry)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)

Stickley, T. (Agricultural Economics)
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)

Stiefel, L. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis

Stillwell, T. (Crop Science)
University of Zimbabwe Faculty Expansion

Stockton, Jack (Counselling)
University of Ryukyus, Okinawa

Stout, William (Agricultural Engineering)
Agricultural Mechanization in Africa
Indonesian Higher Agricultural Education Improvement
Mie University Exchange
Thailand Review of Agricultural Education, Research, and Extension Programs

Strassman, P. (Economics)
Agricultural Economics Services--Sahel
Small Enterprise Approaches to Employment
Small Enterprise Approaches to Employment (Housing Component)

Taboada, O. (Entomology)
Uruguay Agricultural Production and Marketing

Tack, P. (Fisheries & Wildlife)
Indonesian Higher Agricultural Education Improvement
Thailand Review of Agricultural Education, Research, and Extension Programs

Taggart, Glen
University of Nigeria--Nsukka

Taylor, Donald A. (Marketing & Transportation Administration)
Brazil--Institution Building (Business Administration)
Brazil--School of Business Administration (Sao Paulo)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur

Teigen, L. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis

Thodey, A. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis

Thomas, Gordon (Communications)
Communications Seminars/Workshops

Thompson, N. (Crop & Soil Science)
Uruguay Agricultural Research and Technical Assistance

Thullen, M. (International Studies & Programs/Resource Development)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Development Doctoral Program

Titkemeyer, Charles
University of Nigeria--Nsukka

Tombaugh, L. (Forestry)
Natural Resources Management

Tsai, C. (Mathematics)
Indonesian Higher Education

Uebersax, M. (Food Science & Human Nutrition)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)

Ullrey, D. (Animal Science)
Belize Livestock Feeds
Caribbean Agricultural Research & Development Institute (CARDI)

Urbain, W. (Food Science & Human Nutrition)
Consortium for the Development of Technology (CODOT)--Food Science Research

Veltrop, Jan
University of Nigeria--Nsukka

Vescaloni, F. (Education Administration)
Education In-Service Training

Vincent, Warren (Agricultural Economics)
Alternative Rural Development Strategies (1)
Asian Small Farmers
Integrated Agricultural Production and Marketing
Off Farm Employment--Rural Small Scale Industries
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural Development Program--Ethiopia
University of Nigeria--Nsukka
University of Zimbabwe Faculty Expansion

Wagner, Don
University of Nigeria--Nsukka

Waisanen, F. (Sociology)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Ward, T. (Secondary Education and Curriculum)
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)

Weaver, E. (Animal Husbandry)
Colombia--College of Agriculture at Medellin and Palmira

Weber, M. (Agricultural Economics)
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
Brazil--Graduate Agriculture Education
Center for Training in National and International Marketing (CICOM)
Comprehensive Resource Information and Evaluation System (CRIES)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (10)--Costa Rica Agricultural Marketing (3)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products
Food Security in Africa Cooperative Agreement
Microcomputer Statistical Package (MSTAT)

Weiss, J. (Agricultural Economics)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil

Wells, A. (Entomology)
Uruguay Agricultural Production and Marketing

Wells, Clayton (Lifelong Education)
University of Nigeria--Nsukka

Werner, P. (Kellogg Biological Station/Botany and Plant Pathology)
Tropical Dry Forests of Northern Australia

Wheller, Ernst J. (Agricultural Economics)
University of Ryukyu, Okinawa
Whiteside E. (Crop & Soil Science)
Agricultural Economics Services--Sahel

Whittier, H. (Anthropology)
Indonesian Higher Agricultural Education Improvement
Nepal Institute of Agriculture and Animal Science

Wiggins, Boyd
University of Nigeria--Nsukka

Wilcock, D. (Agricultural Economics)
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Sahel Zone Project in Africa

Wiley, D. (African Studies Center)
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Cooperative Exchange Between Michigan State University and Addis Ababa University
Improving the Quality of African Audio-Visual Material in K-12 and University Courses: An Outreach Project
International Business Development
Peace Corps Recruitment Contract
Sahel Secretariat and Documentation Center (I and II)
Zimbabwe Linkages Grant (Travel Grant)
ZIMMAN (Zimbabwe Manpower Development)

Wilkinson, B. (Agricultural Engineering)
Performance Testing of Japanese Power Disk
Power and Machinery Training Program

Williams, C. (Laboratory Animal Care)
Collaborative Research on Parasitic Diseases in Sudan (1)

Williams, Jeff (Microbiology & Public Health)
Collaborative Research on Parasitic Diseases in Sudan (1)
Collaborative Research on Parasitic Diseases in Sudan (2)

Williams, M. (English Language Center)
Summer English Language Training for Japanese Undergraduates, teachers, and Other Professionals

Williams, Wells (Natural Science)
Nepal Institute of Agriculture and Animal Science
University of Nigeria--Nsukka

Wilson, Kim (Institute of International Agriculture)
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
Guatemalan Small Farmer Diversification: Pre-Project Design
University of Zimbabwe Faculty Expansion
311

Wish, J. (Marketing & Transportation)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (5)--Market Process in La Paz, Bolivia

Witt, L. (Agricultural Economics)
Food for Peace
Indonesian Higher Agricultural Education Improvement

Witter, S. (Remote Sensing)
Comprehensive Resource Information and Evaluation System (CRIES)

Wood, G. (Agricultural Economics)
Alternative Rural Development Strategies (1)
Nepal Institute of Agriculture and Animal Science
Rural Agricultural Program Management

Wright J. (Forestry)
Natural Resources Management

Wright, K. (Agricultural Economics)
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)
University of Ryukyus, Okinawa

Wronski, Stanley (Administration & Curriculum)
Thailand Educational Planning

Wyeth, Irving (Institute of International Agriculture)
Brazil--Graduate Agriculture Education
Indonesian Higher Agricultural Education Improvement
Nepal Institute of Agriculture and Animal Science
Peace Corps Intern Training
Rural Agricultural Program Management
Somalia Research Projects and Staff Programs
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)
University of Nigeria--Nsukka
Uruguay Agricultural Production and Marketing
Uruguay Agricultural Research and Technical Assistance

Wynn, Robert
University of Nigeria--Nsukka

Zalla, T. (Agricultural Economics)
Agricultural Economics Services--Sahel
Alternative Rural Development Strategies (1)
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
National Institute of Agricultural Research--Niger (INRAN)
Sahel Zone Project in Africa

Zerby, Lewis
University of Nigeria--Nsukka

Zusmanis, A. (Systems Science)
Comprehensive Resource Information and Evaluation System (CRIES)
Natural Resources Management
APPENDIX C
YEAR INDEX

1951
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa

1952
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa

1953
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa

1954
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa

1955
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa
Vietnam Police and Public Administration

1956
Colombia--College of Agriculture at Medellin and Palmira
University of Ryukyu, Okinawa
Vietnam Police and Public Administration

1957
Colombia--College of Agriculture at Medellin and Palmira
Pakistan Academies for Rural Development
University of Ryukyu, Okinawa
Vietnam Police and Public Administration

1958
Colombia--College of Agriculture at Medellin and Palmira
Communications Seminars/Workshops
Pakistan Academies for Rural Development
University of Ryukyu, Okinawa
Vietnam Police and Public Administration

1959
Colombia--College of Agriculture at Medellin and Palmira
Communications Seminars/Workshops
Pakistan Academies for Rural Development
University of Ryukyu, Okinawa
Vietnam Police and Public Administration

1960
Brazil--Audio Visual
Communications Seminars/Workshops
Pakistan Academies for Rural Development
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)
University of Nigeria--Nsukka
University of Ryukyus, Okinawa
Vietnam Police and Public Administration

1961
Brazil--Audio Visual
Communications Seminars/Workshops
Indian Engineering
Pakistan Academies for Rural Development
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)
University of Nigeria--Nsukka
University of Ryukyus, Okinawa
Vietnam Police and Public Administration

1962
Brazil--Audio Visual
Brazil--School of Business Administration (Sao Paulo)
Communications Seminars/Workshops
Guatemala Education--Programa Interuniversitario
Indian Engineering
Pakistan Academies for Rural Development
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)
University of Nigeria--Nsukka
University of Ryukyus, Okinawa
Vietnam Police and Public Administration

1963
Brazil--Audio Visual
Brazil--School of Business Administration (Sao Paulo)
Communications Seminars/Workshops
Guatemala Education--Programa Interuniversitario
Indian Engineering
Pakistan Academies for Rural Development
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National
Taiwan and Chung Hsing Universities)
University of Nigeria--Nsukka
University of Ryukyus, Okinawa

1964
Brazil--Audio Visual
Brazil--School of Business Administration (Sao Paulo)
Communications Seminars/Workshops
Diffusion of Agricultural Innovation
Food for Peace
Guatemala Education--Programa Interuniversitario
Indian Engineering
Pakistan Academies for Rural Development
Taiwan--Agriculture (Institution Building--Colleges of Agriculture at National Taiwan and Chung Hsing Universities)
Thailand Educational Planning
University of Nigeria--Nsukka
University of Ryukyus, Okinawa

1965
Argentina College of Agriculture--Balcarce
Brazil--Audio Visual
Brazil--Institution Building (Business Administration)
Brazil--School of Business Administration (Sao Paulo)
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
Consortium for the Study of Nigerian Rural Development (CSNRD)
Diffusion of Agricultural Innovation
Food for Peace
Pakistan Academies for Rural Development
Peace Corps/MSU Master's in Education
Thailand Educational Planning
University of Nigeria--Nsukka
University of Ryukyus, Okinawa

1966
Argentina College of Agriculture--Balcarce
Brazil--School of Business Administration (Sao Paulo)
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (2)--Food Marketing in the Economic Development of Puerto Rico
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (4)--Market Processes in the Recife Area of Northeast Brazil
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Consortium for the Study of Nigerian Rural Development (CSNRD)
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Food for Peace
Pakistan Academies for Rural Development
Peace Corps/MSU Master's in Education
Thailand Educational Planning
University of Nigeria--Nsukka
University of Ryukyus, Okinawa

1967
Agricultural Mechanization in Africa
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Argentina College of Agriculture--Balcarce
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
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Consortium for the Study of Nigerian Rural Development (CSNRD)
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University of Ryukyu, Okinawa

1968
Agricultural Mechanization in Africa
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Argentina College of Agriculture--Balcarce
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (6)--Market Coordination in Development of the Cauca Valley Region--Proyecto Integrado de Mercadeo Urbano Rural--Pimur
Consortium for the Study of Nigerian Rural Development (CSNRD)
Diffusion of Agricultural Innovation
Education In-Service Training
Evaluation and Operation of Agricultural Marketing Boards
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National Educational Research & Planning (NERP)--Turkey
Pakistan Academies for Rural Development
Peace Corps/MSU Master's in Education
4-H Rural Development Programs
Thailand Educational Planning
University of Nigeria--Nsukka
University of Ryukyu, Okinawa

1969
African Studies Center (Center Grant)
Agricultural Mechanization in Africa
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Argentina College of Agriculture--Balcarce
Communications Seminars/Workshops
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Consortium for the Study of Nigerian Rural Development (CSNRD)
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Graduate Education Overseas
Indonesian Higher Agricultural Education Improvement
Institutionalization of the Facultad de Agronomía at Balcarce, Argentina
National Educational Research & Planning (NERP)--Turkey
Pakistan Academies for Rural Development
University of Nigeria--Nsukka

1970

African Studies Center (Center Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Mechanization in Africa
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Argentina College of Agriculture--Balcarce
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African Studies Center (Center Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Sector Analysis and Simulation Projects (ASASP) (1)--Agricultural Sector Simulation Research
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean Agricultural Sector Simulation Model
Argentina College of Agriculture--Balcarce
Argentina--Graduate School of Agricultural Sciences--Castelar
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A Comparative Study of Food Marketing Systems in Selected Latin American Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (7)--Assistance to AID Mission/Colombia
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National Educational Research & Planning (NERP)--Turkey
Non-Formal Education (1)
Pakistan Academies for Rural Development
Peace Corps Intern Training
Rural Agricultural Program Management
Rural Employment in Tropical Africa: A Network Approach (1)

1972
African Studies Center (Center Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
   Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
   Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean
   Agricultural Sector Simulation Model
Argentina College of Agriculture--Balcarce
Argentina--Graduate School of Agricultural Sciences--Castelar,
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National Educational Research & Planning (NERP)--Turkey
Non-Formal Education (1)
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Peace Corps Intern Training
Power and Machinery Training Program
Rural Agricultural Program Management
Rural Employment in Tropical Africa: A Network Approach (1)
Rural Employment in Tropical Africa: A Network Approach (2)

1973
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
   Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
   Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (3)--Korean
   Agricultural Sector Simulation Model
Argentina College of Agriculture--Balcarce
Argentina--Graduate School of Agricultural Sciences--Castelar
   Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American
   Countries (3)--Latin American Marketing Planning Center (LAMP)
A Comparative Study of Food Marketing Systems in Selected Latin American
   Countries (7)--Assistance to AID Mission/Colombia
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
Education In-Service Training
Graduate Education Overseas
Indonesian Higher Agricultural Education Improvement
Mie University Exchange
National Educational Research & Planning (NERP)--Turkey
Non-Formal Education (1)
Non-Formal Education (2)
Peace Corps Intern Training
Physiological Efficiency and Plant Architecture in the Field Bean
Power and Machinery Training Program
Rural Agricultural Program Management
Rural Employment in Tropical Africa: A Network Approach (2)
Uruguay Agricultural Production and Marketing

1974
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)
Argentina College of Agriculture--Balcarce
Argentina--Graduate School of Agricultural Sciences--Castelar
Brazil--Graduate Agriculture Education
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (8)--Costa Rica Agricultural Marketing (1)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
Consortium for the Development of Technology (CODOT)--Food Science Research
Education In-Service Training
Graduate Education Overseas
Indonesian Higher Agricultural Education Improvement
National Educational Research & Planning (NERP)--Turkey
Non-Formal Education (1)
Non-Formal Education (2)
Non-Formal Education (3)
Peace Corps Intern Training
Physiological Efficiency and Plant Architecture in the Field Bean
Power and Machinery Training Program
Rural Employment in Tropical Africa: A Network Approach (2)
Strengthening of the Central Agricultural Research Station and Regional Research Stations in Somalia
Thailand Review of Agricultural Education, Research, and Extension Programs
Uruguay Agricultural Production and Marketing

1975
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
Argentina College of Agriculture--Balcarce
Agricultural Economics International Training & Research (211-d)
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)
Brazil--Graduate Agriculture Education
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (10)--Costa Rica Agricultural Marketing (3)
A Comparative Study of Food Marketing Systems in Selected Latin American
Countries (11)--National Marketing Program for Agricultural Livestock
Products
Consortium for the Development of Technology (CODOT)--Food Science Research
Education In-Service Training
Graduate Education Overseas
Indonesia Non-Formal Education
Indonesian Higher Agricultural Education Improvement
Iran Film Series (NIRT)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Peace Corps Intern Training
Physiological Efficiency and Plant Architecture in the Field Bean
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural
Development Program--Ethiopia
Sahel Zone Project in Africa
Strengthening of the Central Agricultural Research Station and Regional Research
Stations in Somalia
Summer English Language Training for Japanese Undergraduates, teachers, and
Other Professionals
Uruguay Agricultural Production and Marketing

1976
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Economics International Training & Research (211-d)
Agricultural Economics Services--Sahel
Agricultural Sector Analysis and Simulation Projects (ASASP) (2)--Korean
Agricultural Sector Study (KASS)--Adapting and Testing of Agricultural
Simulation Models to Sector Analysis
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean
Agricultural Planning Project (KAPP)
Agricultural Sector Analysis and Simulation Projects (ASASP) (5)--Korean
Agricultural Simulation Advisory Services
Argentina College of Agriculture--Balcarce
Belize Livestock Feeds
Brazil--Graduate Agriculture Education
Communications Seminars/Workshops
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (9)--Costa Rica Agricultural Marketing (2)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (10)--Costa Rica Agricultural Marketing (3)
A Comparative Study of Food Marketing Systems in Selected Latin American Countries (11)--National Marketing Program for Agricultural Livestock Products
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research Education In-Service Training
Graduate Education Overseas
Indonesia Non-Formal Education
Indonesian Higher Agricultural Education Improvement
Iran Film Series (NIRT)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Peace Corps Intern Training
Physiological Efficiency and Plant Architecture in the Field Bean
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural Development Program--Ethiopia
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Sahel Zone Project in Africa
Small Scale Industry/Urban Employment
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research Stations in Somalia
Summer English Language Training for Japanese Undergraduates, teachers, and Other Professionals
Uruguay Agricultural Production and Marketing
Uruguay Agricultural Research and Technical Assistance
Women's Participation in Development Female Participation in West Africa

1977
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Economics Services--Sahele
Agricultural Economics Training Strategies
Agricultural Sector Analysis and Simulation Projects (ASASP) (4)--Korean Agricultural Planning Project (KAPP)
Agricultural Sector Analysis and Simulation Projects (ASASP) (5)--Korean Agricultural Simulation Advisory Services
Alternative Rural Development Strategies (1)
Argentina College of Agriculture--Balcarce
Belize Livestock Feeds
Brazil--Graduate Agriculture Education
Communications Seminars/Workshops
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research Education In-Service Training
Graduate Education Overseas
Indonesian Higher Agricultural Education Improvement
Indonesia Non-Formal Education
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Iran Film Series (NIRT)
Latin American Agricultural Sector Analysis (Planning and Policy Analysis
Network)
National Institute of Agricultural Research--Niger (INRAN)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Off Farm Employment--Rural Small Scale Industries
Peace Corps Intern Training
Peace Corps Recruitment Contract
Physiological Efficiency and Plant Architecture in the Field Bean
Poor Rural Households
Rural Employment in Tropical Africa: A Network Approach (2)
Rural Employment in Tropical Africa: A Network Approach (3)--Ada Wereda Rural
Development Program--Ethiopia
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Small Scale Industry/Urban Employment
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research
Stations in Somalia
Summer English Language Training for Japanese Undergraduates, Teachers, and
Other Professionals
Uruguay Agricultural Research and Technical Assistance
Women's Participation in Development--Female Participation in West Africa

1978
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
Agricultural Economics Services--Sahel
Agricultural Economics Training Strategies
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Alternative Rural Development Strategies (1)
Animal Traction Study--Sahel
Asian Small Farmers
Bean/Cowpea Collaborative Research Support Program--Planning Unit (1)
Belize Livestock Feeds
Brazil--Graduate Agriculture Education
Communications Seminars/Workshops
Consortium for the Development of Technology (CODOT)--Food Science Research
Consumption (Nutrition) Effects of Economic Policy
Education In-Service Training
Graduate Education Overseas
Group Projects Abroad to Africa
Improving the Quality of African Audio-Visual Material in K-12 and University
Courses: An Outreach Project
Indonesia Non-Formal Education
Indonesian Higher Agricultural Education Improvement
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Latin American Agricultural Sector Analysis (Planning and Policy Analysis
Network)
National Institute of Agricultural Research--Niger (INRAN)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Nutrition of Cattle in the Mexican Tropics
Off Farm Employment--Rural Small Scale Industries
Peace Corps Recruitment Contract
Poor Rural Households
Post-Production Technology--Rice Losses in Indonesia
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Small Enterprise Approaches to Employment (Housing Component)
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research Stations in Somalia
Summer English Language Training for Japanese Undergraduates, Teachers, and Other Professionals
Uruguay Agricultural Research and Technical Assistance
Women's Participation in Development--Female Participation in West Africa

1979
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
Agricultural Economics Services--Sahel
Agricultural Economics Training Strategies
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Alternative Rural Development Strategies (I)
Animal Traction Study--Sahel
Asian Small Farmers
Bean/Cowpea Collaborative Research Support Program --Planning Unit (1)
Belize Livestock Feeds
Collaborative Research on Parasitic Diseases in Sudan (I)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Consumption (Nutrition) Effects of Economic Policy
Education In-Service Training
Graduate Education Overseas
Group Projects Abroad to Africa
Guatemalan Small Farmer Diversification: Pre-Project Design
Improving the Quality of African Audio-Visual Material in K-12 and University Courses: An Outreach Project
Indonesian Higher Agricultural Education Improvement
Integrated Agricultural Production and Marketing
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Latin American Agricultural Sector Analysis (Planning and Policy Analysis Network)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Nutrition of Cattle in the Mexican Tropics
Peace Corps Recruitment Contract
Poor Rural Households
Post-Production Technology--Rice Losses in Indonesia
Summer English Language Training for Japanese Undergraduates, Teachers, and Other Professionals
Sahel Master's Degree--Training African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Small Enterprise Approaches to Employment (Housing Component)
Somalia Research Projects and Staff Programs
Strengthening of the Central Agricultural Research Station and Regional Research Stations in Somalia
Title XII Strengthening Grant
Uruguay Agricultural Research and Technical Assistance

1980
Addis Ababa (Ethiopia) University/MUCIA Activity Agreement
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Economics Training Strategies
Alternative Rural Development Strategies (1)
Bean/Cowpea Collaborative Research Support Program--Planning Unit (1)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Belize Livestock Feeds
Cameroon Centres for Farmer Family Training
Caribbean Agricultural Extension
Collaborative Research on Parasitic Diseases in Sudan (1)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Consumption (Nutrition) Effects of Economic Policy
Graduate Education Overseas
Guatemalan Small Farmer Diversification: Pre-Project Design
Indonesian Higher Agricultural Education Improvement
Improving the Quality of African Audio-Visual Material in K-12 and University Courses: An Outreach Project
Integrated Agricultural Production and Marketing
Integrated Rural Development (Eastern Ord, Upper Volta--Burkina Faso)
Latin American Agricultural Sector Analysis (Planning and Policy Analysis Network)
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development Nutrition of Cattle in the Mexican Tropics
Off Farm Employment--Rural Small Scale Industries
Peace Corps Recruitment Contract
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Small Enterprise Approaches to Employment (Housing Component)
Summer English Language Training for Japanese Undergraduates, Teachers, and Other Professionals
Title XII Strengthening Grant
Uruguay Agricultural Research and Technical Assistance

1981
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Economics Training Strategies
Alternative Rural Development Strategies (1)
Antigenic Analyses of Cultured Plasmodium Falciparum
Bean/Cowpea Collaborative Research Support Program—Overall Project (2)
Bean/Cowpea Collaborative Research Support Program—Malawi Project (3)—Genetic,
Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program—Nigeria Project (5)—Medical
Aspects of Feeding Cowpeas to Children
Belize Livestock Feeds
Cameroon Centres for Farmer Family Training
Caribbean Agricultural Extension
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Collaborative Research on Parasitic Diseases in Sudan (1)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)—Food Science Research
Foreign Curriculum Consultant Grant
Graduate Education Overseas
Group Projects Abroad to Africa
Improving the Quality of African Audio-Visual Material in K-12 and University
Courses: An Outreach Project
Indonesian Higher Agricultural Education Improvement
Integrated Agricultural Production and Marketing
Integrated Rural Development (Eastern Ord, Upper Volta—Burkina Faso)
Mexican Packaging Industry
Natural Resources Development Doctoral Program
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (3)
Non-Formal Education (4)
Non-Formal Education Network—NFE Network Amendment—Women in Development
Nutrition of Cattle in the Mexican Tropics
Off Farm Employment—Rural Small Scale Industries
Peace Corps Recruitment Contract
Sahel Master’s Degree Training—African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (I and II)
Senegal Agricultural Research and Planning Project Design—Senegal Technical
Services/Training
Small Enterprise Approaches to Employment (Housing Component)
Title XII Strengthening Grant
Uruguay Agricultural Research and Technical Assistance
Women in International Development Office (Training Leaders for Women in
International Development)

1982
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Economics Training Strategies
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
Antigenic Analyses of Cultured Plasmodium Falciparum
Bean/Cowpea Collaborative Research Support Program—Overall Project (2)
Bean/Cowpea Collaborative Research Support Program—Malawi Project (3)—Genetic,
Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
  Improving Resistance to Environmental Stress in Beams Through Genetic
  Selection for Carbohydrate Partitioning and Efficiency of Biological
  Nitrogen Fixation
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical
  Aspects of Feeding Cowpeas to Children
Burm Maize and Oilseeds
Caribbean Agricultural Extension
Caribbean Agricultural Research & Development Institute (CARDI)
Caribbean Technical Support to Mission
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Collaborative Research on Parasitic Diseases in Sudan (1)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Feeding the World: International Interdependence
Foreign Curriculum Consultant Grant
Graduate Education Overseas
Group Projects Abroad to Africa
Indonesian Higher Agricultural Education Improvement
Luce Fund for Chinese Scholars
Mexican Packaging Industry
Natural Resources Development Doctoral Program
Natural Resources Management
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (4)
  Non-Formal Education Network--NFE Network Amendment--Women in Development
Off Farm Employment--Rural Small Scale Industries
Peace Corps Recruitment Contract
Pond Dynamics Collaborative Research Support Program (CRSP)
Sahel Master's Degree Training--African Development/Rural Economy Program
Sahel Secretariat and Documentation Center (1 and II)
Small Enterprise Approaches to Employment
Small Enterprise Approaches to Employment (Housing Component)
Summer English Language Training for Japanese Undergraduates, Teachers, and
  Other Professionals
Title XII Strengthening Grant
Tropical Dry Forests of Northern Australia
Women in International Development Office (Training Leaders for Women in
  International Development)

1983
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Agricultural Sector Analysis and Simulation Projects (ASASP) (6)--IIASA World
  Food & Agriculture Model and Computer Program
Alternative Rural Development Strategies (1)
Alternative Rural Development Strategies (2)
Antigenic Analyses of Cultured Plasmodium Falciparum
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic,
  Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
Improving Resistance to Environmental Stress in Beans Through Genetic
Selection for Carbohydrate Partitioning and Efficiency of Biological
Nitrogen Fixation
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical
Aspects of Feeding Cowpeas to Children
Burma Maize and Oilseeds
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Chinese Language Fellowship Grant
Collaborative Research on Parasitic Diseases in Sudan (1)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Farming Systems Support
Feeding the World: International Interdependence
Graduate Education Overseas
Indonesian Higher Education
Mexican Packaging Industry
Microcomputer Statistical Package (MSTAT)
Natural Resources Development Doctoral Program
Natural Resources Management
Nepal Institute of Agriculture and Animal Science
Non-Formal Education (4)
Non-Formal Education Network--NFE Network Amendment--Women in Development
Off Farm Employment--Rural Small Scale Industries
Peace Corps Recruitment Contract
Performance Testing of Japanese Power Disk
Pond Dynamics Collaborative Research Support Program (CRSP)
Sahel Master's Degree Training--African Development/Rural Economy Program
Senegal Agricultural Research and Planning Project Design--Senegal Technical
Services/Training
Small Enterprise Approaches to Employment
Strengthening African Agricultural Research
Summer English Language Training for Japanese Undergraduates, Teachers, and
Other Professionals
Title XII Strengthening Grant
Training Scholars from Sichuan
Tropical Dry Forests of Northern Australia
University Center for International Rehabilitation
Women in International Development Office (Training Leaders for Women in
International Development)
Zimbabwe Linkages Grant (Travel Grant)
ZIMMAN (Zimbabwe Manpower Development)

1984
Abdominal Ultrasound Studies in Patients with Schistosomiasis and Other Liver
Diseases
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Alternative Rural Development Strategies (2)
Antigenic Analyses of Cultured Plasmodium Falciparum
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic, Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
Improving Resistance to Environmental Stress in Beans Through Genetic Selection for Carbohydrate Partitioning and Efficiency of Biological Nitrogen Fixation
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical Aspects of Feeding Cowpeas to Children
Burma Maize and Oilseeds
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Chinese Language Fellowship Grant
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (1)
Collaborative Research on Parasitic Diseases in Sudan (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Cooperative Technical Assistance Program
Farming Systems Support
Graduate Education Overseas
Indonesian Higher Education
International Business Development
Microcomputer Statistical Package (MSTAT)
Natural Resources Development Doctoral Program
Natural Resources Management
Nepal Institute of Agriculture and Animal Science
Peace Corps Recruitment Contract
Performance Testing of Japanese Power Disk
Pond Dynamics Collaborative Research Support Program (CRSP)
Sahel Master's Degree Training--African Development/Rural Economy Program
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training
Small Enterprise Approaches to Employment
Strengthening African Agricultural Research
Strategies for Strengthening International Aspects of Teacher Education
Summer English Language Training for Japanese Undergraduates, Teachers, and Other Professionals
Title XII Strengthening Grant
Training Scholars from Sichuan
Tropical Dry Forests of Northern Australia
University Center for International Rehabilitation
University of Zimbabwe Faculty Expansion
Women in International Development Office (Training Leaders for Women in International Development)
Zimbabwe Linkages Grant (Travel Grant)
ZIMMAN (Zimbabwe Manpower Development)

1985
Abdominal Ultrasound Studies in Patients with Schistosomiasis and Other Liver Diseases
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
African Studies Center (Fellowships Grant)
African Studies Center (Center Grant)
Alternative Rural Development Strategies (2)
Bean/Cowpea Collaborative Research Support Program--Overall Project (2)
Bean/Cowpea Collaborative Research Support Program--Malawi Project (3)--Genetic,
    Agronomic and Socio-cultural Analysis of Diversity Among Bean Landraces
Bean/Cowpea Collaborative Research Support Program--Mexico Project (4)
    Improving Resistance to Environmental Stress in Beans Through Genetic
    Selection for Carbohydrate Partitioning and Efficiency of Biological
    Nitrogen Fixation
Bean/Cowpea Collaborative Research Support Program--Nigeria Project (5)--Medical
    Aspects of Feeding Cowpeas to Children
Burma Maize and Oilseeds
Caribbean Agricultural Extension
Caribbean Technical Support to Mission
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Chinese Language Fellowship Grant
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Consortium for the Development of Technology (CODOT)--Food Science Research
Cooperative Exchange Between Michigan State University and Addis Ababa
    University
Cooperative Technical Assistance Program
Employment and Enterprise
Farming Systems Support
Food Security in Africa Cooperative Agreement
Graduate Education Overseas
Indonesian Higher Education
International Business Development
Microcomputer Statistical Package (MSTAT)
Natural Resources Development Doctoral Program
Natural Resources Management
Peace Corps Recruitment Contract
Performance Testing of Japanese Power Disk
Pond Dynamics Collaborative Research Support Program (CRSP)
Sahel Master's Degree Training--African Development/Rural Economy Program
Senegal Agricultural Research and Planning Project Design--Senegal Technical
    Services/Training
Small Enterprise Approaches to Employment
Strategies for Strengthening International Aspects of Teacher Education
Summer English Language Training for Japanese Undergraduates, Teachers, and
    Other Professionals
Title XII Strengthening Grant
Training Scholars from Sichuan
Tropical Dry Forests of Northern Australia
University Center for International Rehabilitation
University of Zimbabwe Faculty Expansion
Zimbabwe Linkages Grant (Travel Grant)

1986
Abdominal Ultrasound Studies in Patients with Schistosomiasis and Other Liver
    Diseases
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
African Studies Center (Center Grant)
African Studies Center (Fellowships Grant)
Burma Maize and Oilseeds
Caribbean Agricultural Extension
Center for Advanced Studies in International Development (CASID) (Center Grant)
Center for Advanced Studies in Development (CASID) (Fellowships Grant)
Chinese Language Fellowship Grant
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Cooperative Exchange Between Michigan State University and Addis Ababa University
Employment and Enterprise
Farming Systems Support
Food Security in Africa Cooperative Agreement
Indonesian Higher Education
Natural Resources Development Doctoral Program
Natural Resources Management
Performance Testing of Japanese Power Disk
Senegal Agricultural Research and Planning Project Design--Senegal Technical Services/Training
Small Enterprise Approaches to Employment
Strategies for Strengthening International Aspects of Teacher Education
University of Zimbabwe Faculty Expansion
Zimbabwe Linkages Grant (Travel Grant)

1987
Acquisition of Immunity to Falciparum Malaria in Sudanese Children
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Cooperative Exchange Between Michigan State University and Addis Ababa University
Employment and Enterprise
Food Security in Africa Cooperative Agreement
Indonesian Higher Education
Small Enterprise Approaches to Employment
University of Zimbabwe Faculty Expansion

1988
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (2)
Comprehensive Resource Information and Evaluation System (CRIES)
Cooperative Exchange Between Michigan State University and Addis Ababa University
Employment and Enterprise
University of Zimbabwe Faculty Expansion

1989
Collaboration in Teaching and Research--Chile
Collaborative Research on Parasitic Diseases in Sudan (2)
Employment and Enterprise
University of Zimbabwe Faculty Expansion