



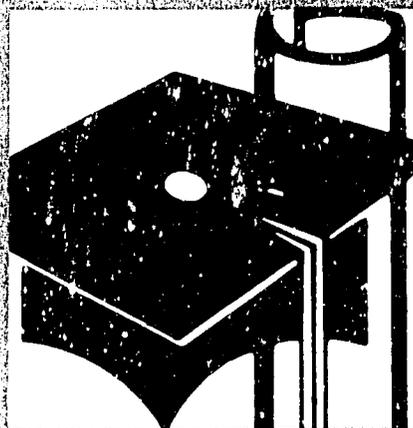
United States
Department of
Agriculture

Office of
International
Cooperation and
Development

Washington,
D.C.
20250

Catalog of Courses and Research Opportunities in Agriculture, 1982

Programs in the United States for Foreign Agriculturalists Offered
by the U.S. Department of Agriculture in cooperation with the
United States Agency for International Development and
U.S. Universities



CONTENTS

INTRODUCTION 1

LIST OF TECHNICAL SHORT COURSES 3

CAPABILITIES OF THE INTERNATIONAL TRAINING DIVISION 6

GENERAL COURSE INFORMATION 8

COURSE DESCRIPTIONS 11

GENERAL INFORMATION ON RESEARCH OPPORTUNITIES 58

RESEARCH OPPORTUNITIES 59

COURSE SCHEDULE 62

July 1981



United States
Department of
Agriculture

Office of
International
Cooperation
and Development

Washington, D.C.
20250

Dear Colleague in Agriculture:

For over 40 years the United States Department of Agriculture has been involved in the training and education of personnel from developing nations in the areas of agriculture and rural development. During this period over 68,000 administrators, scientists, and technicians have been trained in the United States and have returned to make significant contributions in their own countries. The evidence of recent years indicates that the need for trained personnel in agriculture has not diminished. Therefore, the resources of the Department and U.S. agriculture are being increasingly called upon to help other nations feed their growing populations.

This catalog describes one aspect of the Department's response to the world's agricultural needs. It outlines some 53 technical courses in agriculture that will be presented in the United States by the Department of Agriculture, U.S. universities, and the private sector in 1982. They range from 2 to 13 weeks in length and cover a wide range of subjects. Each is designed and conducted with an appropriate mix of practical training, field observation and experience, and classroom activities. The focus is kept on the need for participants to return to their jobs with a higher level of practical skill as well as a stronger science-based understanding of their jobs.

Increasingly, the courses listed are also being taught in the developing nations. The past year has seen a dramatic increase in the number of international development agencies and agricultural ministries that are making arrangements with the Department to conduct courses related to specific projects in the developing countries themselves. These onsite courses are a cost-effective way of rapidly increasing the practical skills of a selected group of staff and moving projects forward significantly.

In addition to listing the technical courses available in the United States and overseas, this catalog lists for the first time over 200 opportunities for scientists to participate in research in the U.S. Department of Agriculture's laboratories. This new feature reflects the Department's response to an increasing number of requests from scientists around the world to update or refine their research skills by working alongside U.S. scientists in research projects in their areas of interest. Under this program, scientists and other researchers may specify the project areas in which they wish to work and may even identify their own research topics to explore along with U.S. colleagues. We are very pleased to introduce this component to our overall program and to have the willing cooperation of the Department's Agricultural Research Service.

We trust that the training and research opportunities listed in this catalog will help developing and other nations meet their growing needs for trained staff. The courses will be conducted by Department personnel, university faculty, and

agriculturalists from the private sector. The research will be conducted in association with Department scientists. In every instance we pledge our best efforts to strengthen the skills and capabilities of participants to help them contribute to solving their countries' food problems.

If you wish to enroll trainees in these courses, or have trainers visit your country, or if you wish to participate in any of the research opportunities listed, please contact me by letter or cable at the address on page 10. I suggest you do so as early as possible because the courses fill rapidly and research opportunities are limited.

I trust that through these attempts to share our knowledge and resources we can improve the lot of those who need food and clothing and who daily live under the shadow of hunger.

Yours very sincerely,

A handwritten signature in cursive script, appearing to read "Robert I. Ayling". The signature is written in dark ink and is positioned above the typed name.

ROBERT I. AYLING
Deputy Administrator for
International Training

LIST OF TECHNICAL SHORT COURSES

Animal Science and Natural Resources

TC 120-8	Resource Development of Watershed Lands	11
TC 120-10	Land Use Planning in Natural Resource Management	12
TC 130-4	Range Management and Forage Production	13
TC 130-9	Intensive Poultry Production Systems	14
TC 130-10	Small Ruminant Production Techniques	15
TC 170-7	Ecological Analysis for Management of Tropical Forests and Related Natural Resource Areas	16

Economics And Policy

TC 140-1	Agricultural Policy Seminar (for senior-level officials) . .	17
TC 140-2	Agricultural Project Planning and Analysis	18
TC 140-3	Strategies for Developing the Agricultural Sector	19
TC 140-4	Basic Statistics with Emphasis On Agricultural Statistics (conducted in French only)	20
TC 140-8	Small Farmer Credit Policy and Administration	21
TC 140-11	Establishment and Management of Agricultural Cooperative Organizations	22
TC 140-12	Organization and Operation of Rural Electric Distribution Systems	23
TC 140-16	Agricultural Project Implementation	24
TC 140-19	Agricultural Policy Formulation and Analysis	25
TC 140-22	Economic Forecasting for Agricultural Policymaking and Planning	26
TC 140-26	Establishing Data Bases and Analytical Systems for Economic Decisionmaking in Agriculture	27
TC 140-28	Effective Livestock and Crop Management for Small Farms . .	28
TC 140-29	Regional Agricultural Resource Development	29
TC 140-30	Contract Administration in Rural Development	30

TC 150-5	Developing Markets for Agricultural Products	31
TC 110-3	Agricultural Communications and Media Strategies (for communications specialists)	32
TC 110-5	Development and Operation of Agricultural Extension Programs (two sections)	33
TC 110-14	Application and Diffusion of Agricultural Research Results to the Community Level	34
TC 110-15	Agricultural Trainer Development	35
TC 110-16	Vocational Agricultural Education Systems in Developing Countries	36
TC 110-18	Communications Planning and Strategy (for program managers of any technical specialty)	37
TC 110-19	Communication Skills for Development Professionals	38
TC 140-14	Management and Organizational Change - An Organizational Development Approach (for senior and executive officials) .	39
TC 140-17	Management and the Role of Women in Development (for senior women officials)	40
TC 140-23	Management of Agricultural Organizations (for entry- to mid-level managers)	41
TC 140-24	Management of Agricultural Research	42
TC 140-25	Initiating and Managing Integrated Rural Development Programs	43
TC 140-32	Keys to Agricultural Development at the Local Level (six sections)	44

Production and Technology

TC 110-17	Agricultural Research Methodology	45
TC 120-1	Irrigation Problems and Practices	46
TC 120-5	Soil Testing, Soil Classification, and Fertility Management	47
TC 120-6	Technical and Economic Aspects of Soybean Production . . .	48
TC 120-7	Soybean Processing for Food Uses	49
TC 120-14	Assessment and Improvement of Onfarm Irrigation Systems	50

TC 120-25	Water Harvesting for Agricultural Production	51
TC 130-3	Seed Improvement	52
TC 130-5	Plant Quarantine	53
TC 130-8	Integrated Pest Management	54
TC 130-11	Vegetable Crop Production and Marketing	55
TC 150-2	Grain Storage and Marketing	56
TC 150-7	Determination and Prevention of Postharvest Food Losses . .	57

CAPABILITIES OF THE INTERNATIONAL TRAINING DIVISION

Programming or Arranging Training in the United States

Program specialists in the International Training Division (ITD) annually arrange and supervise training programs in the United States for approximately 2,500 foreign agriculturalists from developing nations. These programs cover a wide range of technical, scientific, and administrative areas. They include Ph.D. research programs, short-term specialized technical programs, and practical work in agencies or on farms. In arranging these programs, ITD calls upon the entire U.S. agricultural community and thus has the capacity to tailor programs to individuals or groups in almost all agricultural fields. The support provided by ITD's program specialists includes program development, placement in universities or other organizations, program monitoring, payment of bills and allowances, and administrative arrangements.

Specialized Courses in the United States

In response to needs identified in the developing world, ITD conducts and coordinates over 50 technical courses in the United States each year. Participants develop skills they can apply to pressing country problems through varied training topics ranging from such technical areas as irrigation, seed improvement, and grain storage to managerial and policy areas such as project implementation and small farmer credit. Courses are conducted by experienced professionals and employ training methods which facilitate interaction among participants and help them develop practical skills. (See course descriptions for additional information.)

Training Programs Conducted in Developing Countries

ITD also offers specialized training programs upon request to sponsoring organizations overseas. Such programs include either established courses or specifically developed new courses as appropriate. This is an expanding dimension of ITD's activities. Overseas courses are cost-effective and focus specialized training on selected groups with least disruption to ongoing programs. Courses or programs 2 weeks to several months long have been prepared for staff levels ranging from operating technicians to Deputy Secretaries in Ministries of Agriculture. Recent overseas training includes programs in irrigation, project analysis, credit administration, marketing, communications, and trainer development. They have been conducted in Thailand, Mauritania, Syria, Haiti, Egypt, Nepal, Ethiopia, Yemen, Bangladesh, Panama, Costa Rica, and other nations.

Managing Training Projects Overseas

Improving training resources and institutions in developing nations is critically important for agricultural development. As a key contribution to this area, U.S. staff can serve as managers, advisors, or trainers in the planning, development, and implementation of in-country training projects. ITD is currently responsible for managing or advising on several large training projects overseas. Such projects are located in Ghana, Tanzania, and Indonesia.

Short-Term Experts

ITD provides professionals experienced in technical and management areas on a short-term basis for such needs as surveying training requirements or planning integrated training programs. Short-term assistance has been provided upon request to many developing countries and includes work on project design in the Sudan and training surveys in Tanzania.

Strengthening Agricultural Organizations

In recent years ITD has focused many of its resources on developing its capability to strengthen agricultural organizations. Recognizing that managerial or technical competence is only one factor contributing to organizational effectiveness, ITD has undertaken projects that also strengthen other qualities needed for organizational effectiveness. These include information, fiscal, and incentive systems; organizational structure; methods for setting goals and objectives; and staffing patterns, staff development, and retention. ITD can undertake such projects in a wide variety of agricultural organizations and has done so in countries such as Jamaica and Bangladesh.

Programs To Develop Trainers

Developing skilled trainers in a variety of technical and management areas is another important activity of the International Training Division. In specific instances, individuals or groups from key foreign ministries have been trained as trainers. They, in turn, have conducted successful low-cost programs in their own ministries. Participants in the 1980 Agricultural Trainer Development Course in the United States returned to Nepal to help present an in-country course in early 1981. To increase the effectiveness of its programs, ITD includes the learning of training skills as a secondary objective in most of its technical and management courses.

Research Opportunities in the United States

ITD, in cooperation with the Agricultural Research Service laboratories, offers a program which allows foreign scientists to join their colleagues in research projects of mutual interest. This new program helps scientists in the developing world to maintain their research skills at a high level and at the same time contribute to their field of specialization. (For more complete information see page 58).

GENERAL COURSE INFORMATION

PARTICIPANTS	<p>Courses are open to the staffs of agricultural and rural development institutions and organizations in developing countries. In their own countries participants may fill such diverse roles as technicians, scientists, trainers, administrators, and policymakers. They may have varied subject matter backgrounds and wide ranges of experience in development positions.</p>
PHILOSOPHY AND DESIGN	<p>The design of each course represents a belief that training situations should provide participants with sound technical knowledge and the opportunity to test and practice new skills and knowledge in practical situations. Thus, all courses offer a mixture of technical instruction, exercises, practice, and field observations.</p> <p>Experienced professional staff will find the courses stimulating and challenging because they focus on issues affecting developing countries. Participants are encouraged to identify specific personal objectives within the course objectives, share their home country situations, and apply course resources to the realities they face at home. The format of the courses should help them do so by providing small group work, introducing relevant case studies and examples, conducting illustrative field trips, and involving them in an ongoing evaluation of the training offered. All course instructors have international experience and are selected for their knowledge of specific subject areas and their skill in facilitating adult learning.</p> <p>Each course is designed for a specific level of academic knowledge and professional experience. Target audiences are indicated in the individual course descriptions. <u>Participants should have the ability to participate fully in classes, exercises, and projects conducted in English.</u> Where simultaneous translation is available, it is indicated in the course description. Costs for translators will be furnished upon request.</p>
LOCATION	<p>Courses conducted by USDA staff are held in a training center in the Washington, D.C., metropolitan area. Courses which are coordinated by USDA but conducted by a U.S. university are typically presented at that university.</p>
COURSE SEQUENCE	<p>The schedule has been designed so that many of the courses can be taken in sequence. (See the chart on page 62.) Future schedules will approximate the 1982 calendar to help you in your long-term planning.</p>

ENROLLMENT

Cable or write to reserve space for course candidates. For most courses, enrollment is on a space-available basis. Forward funding documents or payment, English language proficiency scores, and biographical information at least 2 months before the course date so that administrative processing can be completed prior to participants' arrival. Refer to course descriptions for information on any home-country data or materials that participants should bring for use during the course.

FUNDING AND FINANCIAL ARRANGEMENTS

Funding is arranged according to the sponsoring organization as follows:

AID PARTICIPANTS - Project Implementation Order for Participants (PIO/P) documentation is required.

FAO FELLOWSHIPS - FAO Fellowship documentation is required.

OTHER SPONSORS - The World Bank, country governments, and other sponsors should make checks payable to USDA/ITD for the training fees and pay maintenance allowance directly to participants.

Training Fee. Cost totals for each course vary according to the items included as training expenses by each sponsoring organization. All training fees include course costs, such as staff, materials, and field trips; and administrative support, which includes course enrollment procedures, health insurance, logistical arrangements, and assistance with relevant appointments and personal needs. In addition, orientation to the United States and to the Department of Agriculture is provided for all participants by the Washington International Center and USDA. Both AID participants and participants arriving under independent financing from home governments or the World Bank also receive an allowance for books and book shipment, as well as a membership in an appropriate professional society.

Maintenance Allowance. The maintenance allowance for food, housing, and incidentals is calculated at \$50/day for the first month and for field trips away from the training site. Washington-based courses continue for the duration of the course at \$50/day due to the high costs of living in the area. The allowance at other sites is reduced to \$28.33/day after the first month. Information on any increases made necessary by inflation will be forwarded to sponsors when participants are enrolled. Governments and organizations which have their own policies with regard to maintenance allowances are encouraged to follow those policies.

ARRIVAL DATE
AND ORIENTATION

Arrival date (call forward date) is scheduled 5 to 8 days prior to the actual course date to allow time for orientation and administrative processing. Both participants and instructors strongly agree that this lead time plays a critical role in the participants' readiness to begin an intensive course. During orientation, participants examine U.S. culture and customs, familiarize themselves with transportation, arrange permanent housing, and generally "settle-in." Financial arrangements, visa problems, and other administrative matters are handled at this time. In addition, instructors often conduct individual interviews with participants to ensure that courses meet participants' needs.

When USDA is notified of participants' scheduled arrival time, they will be met at the airport by volunteers from the Washington International Center (WIC). WIC staff will assist with transportation and hotel arrangements at that time.

For more detailed information, cable or write to:

Dr. Robert I. Ayling
Deputy Administrator for International Training
Room 3529-S
Office of International Cooperation
and Development (OICD)
United States Department of Agriculture
Washington, D.C. 20250
USA

Cable Address: AGRI/WASH 64334, Ayling OICD

COURSE DESCRIPTIONS

RESOURCE DEVELOPMENT OF WATERSHED LANDS TC 120-8

DATES AND DURATION

6 weeks: June 14-July 23, 1982. Participants should arrive in Washington, D.C., on June 7 for course orientation and administrative procedures.

TARGET AUDIENCE

For midlevel technicians and professionals engaged in the management and development of watershed lands in developing nations. Individuals with a B.S. or M.S. in forestry or agriculture, or who work with water resources.

OBJECTIVES

Participants will acquire the knowledge and skills necessary for the effective development, use, and management of water resources to increase food and fiber production.

CONTENT

Watershed lands are habitable areas which do not include agricultural, urban, or reserve areas. Because production from these lands is linked with water, the course deals with the fundamentals of hydrology including hydrologic measurement and predictive methods. The course presentation is supplemented with practical problems and demonstrations. Since most of the difficulties in developing the multiple products of watershed lands are social and economic, the course emphasizes those aspects of development. Other major areas include range assessment and management, soil and water conservation techniques, and natural resource economics and management.

OTHER INFORMATION

Conducted in English by the University of Arizona. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,261 includes \$3,015 training fee and \$2,246 maintenance allowance.

UN/FAO participants: Total \$4,951 includes \$2,705 training fee and \$2,246 maintenance allowance.

All other participants: Total \$5,261 includes \$3,015 training fee payable to USDA and \$2,246 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Tucson, Arizona, with a stopover in Washington, D.C., from June 7 to June 11.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, Arabic, French, and Spanish.

COORDINATOR

Richard Affleck

PM 110/022¹

¹ Program Manager number for cable reference.

LAND USE PLANNING IN NATURAL RESOURCE MANAGEMENT
TC 120-10

DATES AND DURATION

6 weeks: May 24-July 2, 1982. Participants should arrive in Washington, D.C., on May 17 for course orientation and administrative procedures.

TARGET AUDIENCE

Land use planners, regional planners, officials who establish or administer planning programs at the state or national level, and resource specialists whose duties include working on land use planning teams.

OBJECTIVES

Participants will be able to: (1) define, analyze, and evaluate land use planning in the context of natural resource policy and management; (2) explain and give examples of principles, assumptions, and methods useful in developing objectives, gathering and analyzing data, and developing and evaluating land use alternatives; and (3) better understand the techniques used to analyze the social and economic impacts of alternative land uses.

CONTENT

Participants will study the land use planning process including the challenge of effectively working on an interdisciplinary planning team. The course will emphasize the importance of and techniques used in understanding the social, cultural, physical, and biological environments in the land area for which a plan is developed. Participants should bring a case study from their home country on a potential or existing land use situation which they wish to work on during the course. Field trips will examine local and regional areas facing a variety of land use planning problems.

OTHER INFORMATION

Conducted in English by the University of Idaho. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,826 includes \$3,580 training fee and \$2,246 maintenance allowance.
UN/FAO participants: Total \$5,516 includes \$3,270 training fee and \$2,246 maintenance allowance.
All other participants: Total \$5,826 includes \$3,580 training fee payable to USDA and \$2,246 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to the Pullman/Moscow Regional Airport in Pullman, Washington, with a stopover in Washington, D.C., from May 17 to May 21.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Joseph Hoffman

PM 110/042

RANGE MANAGEMENT AND FORAGE PRODUCTION
TC 130-4

DATES AND DURATION

9 weeks: May 31-July 30, 1982. Participants should arrive in Washington, D.C., on May 24 for course orientation and administrative procedures.

TARGET AUDIENCE

Range and livestock officers, extension specialists, teachers and professors, technicians, and farmers.

OBJECTIVES

Upon completion of the course, participants will be able to: (1) develop systems for range inventories and delineating range sites; (2) select appropriate range inventory and sampling procedures for specific range areas; (3) evaluate and relate the different components of range ecosystems; (4) plan efficient improvements for various range settings; (5) plan and evaluate grazing management schemes for various purposes; and (6) consider and implement range management plans in situations where there are competing and complementary land uses.

CONTENT

The course provides participants with a framework for range development and planning, emphasizing extensive range production. Topics include identification of vegetation types; range site classification, remote sensing, mapping, and range surveys; determination of range carrying capacity, use patterns, and forage utilization; reseeding for improved and increased production; control of undesirable vegetation; water development; range research and education; and the reproductive physiology of domestic livestock. Field trips illustrate the variety of range production systems--both intensive and extensive--needed in differing climates.

OTHER INFORMATION

Conducted in English by New Mexico State University. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,303 includes \$3,310 training fee and \$2,993 maintenance allowance.

UN/FAO participants: Total \$5,968 includes \$2,975 training fee and \$2,993 maintenance allowance.

All other participants: Total \$6,303 includes \$3,310 training fee payable to USDA and \$2,993 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Las Cruces, New Mexico, with a stopover in Washington, D.C., from May 24 to May 28.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, Arabic, and French.

COORDINATOR

Richard Affleck

PM 110/022

INTENSIVE POULTRY PRODUCTION SYSTEMS
TC 130-9

DATES AND DURATION

5 weeks: May 31-July 2, 1982. Participants should arrive in Washington, D.C., on May 24 for course orientation and administrative procedures.

TARGET AUDIENCE

Technical officers, extension specialists, and others directly involved in poultry production programs.

OBJECTIVES

Participants will: (1) increase their knowledge and skills in poultry breeding, nutrition, and disease prevention and control; and (2) develop an understanding of new and alternative techniques of poultry production management that can improve dietary and economic conditions.

CONTENT

This course focuses on how poultry production can be used to improve diets and increase the income of farm families. Course content includes basic principles of poultry production: breeding, feeding and nutrition, disease prevention and control, types of incubators, egg handling and storage, rearing and managing broiler and layer birds, and turkey production. Field trips will offer opportunities to analyze both large and small commercial operations.

OTHER INFORMATION

Course is conducted in English by Stephen F. Austin State University. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

- AID participants: Total \$4,334 includes \$2,286 training fee and \$2,048 maintenance allowance.
- UN/FAO participants: Total \$4,024 includes \$1,976 training fee and \$2,048 maintenance allowance.
- All other participants: Total \$4,334 includes \$2,286 training fee payable to USDA and \$2,048 maintenance allowance payable directly to participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Nacogdoches, Texas (connecting from Houston or Dallas/Ft. Worth, Texas, on Metroflight Airlines) following a stopover in Washington, D.C., from May 24 to May 28.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, Spanish, and French.

COORDINATOR

Jane A. Carstairs

PM 110/032

SMALL RUMINANT PRODUCTION TECHNIQUES
TC 130-10

DATES AND DURATION

6 weeks: June 14-July 23, 1982. Participants should arrive in Washington, D.C., on June 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Technical specialists and extension and production personnel who are concerned with the production and management of goat and sheep herds.

OBJECTIVES

Participants will develop knowledge and skills to: (1) operate and manage sheep and goat production programs; (2) operate and manage grazing and confinement systems; (3) manage and improve rangeland; (4) select and breed sheep and goat herds for improved production; (5) formulate nutritionally sound rations utilizing available home country feeds; (6) diagnose diseases and develop disease prevention and control strategies; and (7) develop and expand markets for animal products.

CONTENT

This course teaches the fundamentals of producing and managing goat and sheep herds for meat, milk, and wool production. It will cover practical knowledge and techniques in the following areas: selection and breeding including visual appraisal and records; calculating rations including range forages and supplementation; disease management techniques, drenching, and parasite control; management techniques such as record keeping, data analysis, and water and range development; production and marketing of meat, milk, wool, hides, etc.; and reproductive physiology and management. Open grazing and confinement systems and different environmental conditions will be examined in field trips.

OTHER INFORMATION

Conducted in English by California State Polytechnic University, Pomona. Simultaneous interpretation available in French and Spanish at additional cost.

COST

AID participants: Total \$5,161 includes \$2,763 training fee and \$2,398 maintenance allowance.

UN/FAO participants: Total \$4,851 includes \$2,453 training fee and \$2,398 maintenance allowance.

All other participants: Total \$5,161 includes \$2,763 training fee payable to USDA and \$2,398 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Pomona, California, with a stopover in Washington, D.C., from June 7 to June 11.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, Spanish, and French.

COORDINATOR

Jane A. Carstairs

PM 110/032

ECOLOGICAL ANALYSIS FOR MANAGEMENT OF TROPICAL
FORESTS AND RELATED NATURAL RESOURCE AREAS
TC 170-7

DATES AND DURATION

4 weeks: July 12-August 6, 1982. Participants should arrive in Washington, D.C., on July 5 for course orientation and administrative procedures.

TARGET AUDIENCE

Supervisory, administrative, or professional personnel concerned with inventories or management planning of forest resources.

OBJECTIVES

Participants will develop the knowledge and skills needed to (1) inventory resources, (2) analyze data used in forest and natural resources management, (3) identify and perform ecological analyses of resource problems, and (4) develop alternative solutions to deforestation and natural resource degradation.

CONTENT

Initial sessions will establish a conceptual basis for an ecological approach to managing forests and other natural resources. These sessions and field trips will provide knowledge and demonstrate techniques available for monitoring, inventorying, and assessing forests and other natural resource ecosystems. The course will also cover methods of integrating and synthesizing resource information for use in decisions on forest management practices and policies.

OTHER INFORMATION

Conducted in English by the University of Tennessee. Simultaneous interpretation is not available.

COST

AID participants: Total \$3,712 includes \$2,014 training fee and \$1,698 maintenance allowance.
UN/FAO participants: Total \$3,427 includes \$1,729 training fee and \$1,698 maintenance allowance.
All other participants: Total \$3,712 includes \$2,014 training fee payable to USDA and \$1,698 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Knoxville, Tennessee, with a stopover in Washington, D.C., from July 5 to July 9.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Joseph Hoffman

PM 110/042

AGRICULTURAL POLICY SEMINAR
TC 140-1

DATES AND DURATION

4 weeks: September 20-October 15, 1981. Participants should arrive in Washington, D.C., on September 15 for course orientation and administrative procedures.

TARGET AUDIENCE

Senior level agricultural policymakers such as Secretaries or Ministers of Agriculture, Assistant Secretaries or Ministers, senior Agricultural Officers, Deputy Chief Agricultural Officers, and senior legislators who deal with agricultural policy .

OBJECTIVES

Participants will develop the knowledge and skills to: (1) evaluate the policymaking process; (2) identify major national goals with respect to the agricultural sector; (3) resolve goal conflicts; (4) evaluate alternative courses of action to resolve major policy problems; and (5) select appropriate analytical techniques to provide information for better solutions to policy problems.

CONTENT

The seminar focuses on substantive policy matters and policy determination and implementation. The seminar topics include the role of agricultural policy decisions in social and economic development; how agricultural policies are formulated and implemented; discussions of major policy issues such as food and population issues, marketing issues, land reform, resource conservation policies, price policy for agricultural commodities, tax policy, import-export policies, development and diffusion of new technology, and other issues raised by participants; the interdependence among selected policy issues; and a field trip to allow participants to observe how national decisions on agricultural policy are implemented at the local level.

OTHER INFORMATION

Conducted in English by senior USDA economists and administrators, knowledgeable professionals from Washington-based organizations, and university faculty. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$4,385 includes \$2,635 training fee and \$1,750 maintenance allowance.
UN/FAO participants: Total \$4,100 includes \$2,350 training fee and \$1,750 maintenance allowance.
All other participants: Total \$4,385 includes \$2,635 training fee payable to USDA and \$1,750 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted on a country or regional basis in English and Spanish.

COORDINATOR

Robert Doan

PM 110/053

AGRICULTURAL PROJECT PLANNING AND ANALYSIS
TC 140-2

DATES AND DURATION

10 weeks: Section I. May 17-July 23, 1982. Participants should arrive in Washington, D.C., on May 12 for course orientation and administrative procedures.
Section II. September 7-November 12, 1982. Participants should arrive in Washington, D.C., on September 1 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff and technical personnel in Ministries of Agriculture, central and agricultural banks, and on planning boards who will be involved in project planning and evaluation as team members, supervisors, or teachers.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) specify the objectives and critical factors in agricultural projects; (2) develop a project system that considers all agency and resource constraints; (3) examine alternative project components and implementation approaches; (4) estimate project benefits and costs; (5) evaluate financial and economic impacts of projects; (6) identify risks, complications, and methods for their inclusion in the analysis of projects; and (7) present data on alternative projects for comparison purposes.

CONTENT

The course includes the following topics: the role of project planning and analysis in agricultural development; the identification of project objectives and constraints; design of project proposals; logical framework analysis; network analysis using PERT and CPM; design of project organizational structure and lines of authority; collection of data on project resources, farm enterprises, and cooperative enterprises; financial analysis, including internal rate of return, benefit-costs analysis, discounting, and methods to estimate anticipated project benefits to specific groups and entities; economic analysis, including shadow pricing vs. market pricing, indirect benefits and costs, and differences between financial and economic analyses; refinements for dealing with uncertainty, inflation, mutually exclusive projects, and intangible costs and benefits. Two field trips allow intensive study of project planning and analysis practices, including onsite planning operations, data collection techniques, partial budget analysis, and the economic analysis of an agricultural development project.

OTHER INFORMATION

Conducted in English by USDA, university personnel, and consultants. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$9,060 includes \$5,060 training fee and \$4,000 maintenance allowance.
UN/FAO participants: Total \$8,725 includes \$4,725 training fee and \$4,000 maintenance allowance.

All other participants: Total \$9,060 includes \$5,060 training fee payable to USDA and \$4,000 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

For overseas presentation, two separate courses are available--Project Planning and Project Analysis.

COORDINATOR

Robert Doan

PM 110/053

STRATEGIES FOR DEVELOPING THE AGRICULTURAL SECTOR
TC 140-3

DATES AND DURATION

10 weeks: May 31-August 6, 1982. Participants should arrive in Washington, D.C., on May 24 for course orientation and administrative procedures.

TARGET AUDIENCE

Upperclass students studying for a B.S. degree and graduate students who have potential for guiding agricultural development in their home countries. Participants should have knowledge of intermediate level economic theory.

OBJECTIVES

Participants will develop an understanding of the theories, status of empirical knowledge, problems, and possibilities in the areas of economic development, growth, and development planning in the less developed countries. Emphasis is placed on gaining knowledge of analytical concepts that will enable participants to perform more effectively as professionals in public agencies involved with economic and agricultural development.

CONTENT

The course includes: meaning and measurement of economic development, growth, and improvements in welfare; international differences in levels and rates of growth and development; survey of basic theories of development and growth; structural change and role of agriculture; theories of growth and development as related to distinctive features of low-income countries development and planning; problems of, and programs for, institution building and resource development; seminars on participant papers prepared on agricultural planning and development in their respective countries; country monographs on economic development and country development plans; and field trips to observe agricultural development. Continually updated to include strategies for reaching the poorest of the poor, the course provides an opportunity for technical agriculturists to study development strategies.

OTHER INFORMATION

Conducted in English by the University of Florida. Simultaneous interpretation is not available. All participants take the course for academic credit.

COST

AID participants: Total \$6,335 includes \$3,437 training fee and \$2,898 maintenance allowance.

UN/FAO participants: Total \$6,000 includes \$3,102 training fee and \$2,898 maintenance allowance.

All other participants: Total \$6,335 includes \$3,437 training fee payable to USDA and \$2,898 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Gainesville, Florida, with a stopover in Washington, D.C., from May 24 to May 28.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

James Gulley

PM 110/058

BASIC STATISTICS WITH EMPHASIS ON AGRICULTURAL STATISTICS (FRENCH)
TC 140-4

DATES AND DURATION

13 weeks: May 31-August 27, 1982. Participants should arrive in Washington, D.C., on May 24 for course orientation and administrative procedures.

TARGET AUDIENCE

Designed for French-speaking intermediate students in statistics; not for advanced students. Some experience in agriculture is highly desirable. Participants should have had the equivalent of college courses in algebra.

OBJECTIVES

Participants will develop knowledge and skills to: (1) apply basic statistical concepts to sampling for data related to agriculture; (2) work with sampling materials including the preparation of an area frame, selection of sample, and expansion and analysis of survey results; (3) demonstrate and discuss procedures used in forecasting and estimating crop yields; (4) discuss the role, organization, and facilities of the Economic Research Service, USDA, and the organization and administration of a current data system; and (5) conduct and summarize a national survey.

CONTENT

The course includes basic statistics including methods of data presentation, measures of central tendency and dispersion, frequency distributions, probability, hypothesis testing, and linear regression and correlation. It covers sampling theory and applications with emphasis on designs currently used by the Economic Research Service, USDA. Field trips are taken to observe agriculture and the organization and operation of a statistical office. The course also includes planning and supervising surveys, data summarization procedures, and objective procedures for forecasting crop yields.

OTHER INFORMATION

Conducted in French by New Mexico State University and USDA/Economic Research Service.

COST

AID participants: Total \$7,641 includes \$3,828 training fee and \$3,813 maintenance allowance.
UN/FAO participants: Total \$7,281 includes \$3,468 training fee and \$3,813 maintenance allowance.
All other participants: Total \$7,641 includes \$3,828 training fee payable to USDA and \$3,813 maintenance allowance payable directly to participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Las Cruces, New Mexico, with a stopover in Washington, D.C., from May 24 to May 28.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in French or Spanish.

COORDINATOR

Chin Lee

PM 110/057

SMALL FARMER CREDIT POLICY AND ADMINISTRATION
TC 140-8

DATES AND DURATION

6 weeks: June 14-July 23, 1982. Participants should arrive in Washington, D.C., on June 9 for course orientation and administrative procedures.

TARGET AUDIENCE

National or regional agricultural credit officials who supervise loans to small farmers and who are expected to play influential roles in the agricultural credit agencies of their government.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) understand the role of credit programs for small farmers in economic development; (2) implement lending and borrowing principles; (3) evaluate mechanisms which can be used to reduce risks and the heavy administrative costs associated with small farmer credit programs; and (4) weigh alternative policies and the trade-offs that exist among them.

CONTENT

Topics include the role of small farmer credit programs in the development of the agricultural sector; the formulation of agricultural policy; discussion of major credit policy issues including supervision, interest rates, distribution channels, savings and the attraction of funds; review of borrowing and lending principles; review of production economics; examination of small farmer production, financial structure, and credit behavior; financial institutions and markets; and administrative techniques for serving small farmers. Field trips include visits to major U.S. agricultural credit institutions to observe and practice administrative techniques used in making loans. Participants exchange ideas on the overall agricultural credit systems in their home countries and learn how small farmer credit fits into their systems.

OTHER INFORMATION

Conducted in English by USDA, university faculty, and consultants. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$5,450 includes \$3,100 training fee and \$2,350 maintenance allowance.

UN/FAO participants: Total \$5,140 includes \$2,790 training fee and \$2,350 maintenance allowance.

All other participants: Total \$5,450 includes \$3,100 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. The Small Farmer Credit Policy course and the Small Farmer Credit Distribution and Administration course will continue to be available separately in English, French, and Spanish.

COORDINATOR

James Gulley

PM 110/058

ESTABLISHMENT AND MANAGEMENT OF AGRICULTURAL COOPERATIVE ORGANIZATIONS
TC 140-11

DATES AND DURATION

6 weeks: September 20-October 29, 1982. Participants should arrive in Washington, D.C., on September 13 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff responsible for initiating, developing, and managing agricultural cooperatives.

OBJECTIVES

Participants will: (1) learn how to organize and manage cooperatives to give small farmers more leverage in the marketplace; (2) learn how to organize, and instruct others to organize, small-scale producers into more viable production and marketing entities; and (3) practice skills necessary for developing and managing agricultural cooperatives.

CONTENT

The course will include: the structure and organization of cooperatives for marketing products, purchasing farm inputs, or group farming; the leadership and management functions essential for a viable cooperative organization; the financing of cooperatives; the role of government in the cooperatives movement, including the transitional process from a government program to a self-sustaining cooperative movement; and the consideration of a variety of member-relations activities ranging from the recruitment of members to the vocational and other educational needs of the membership.

OTHER INFORMATION

Conducted in English by Southern University. Simultaneous interpretation is not available.

COST

AID participants: Total \$4,578 includes \$2,332 training fee and \$2,246 maintenance allowance.
UN/FAO participants: Total \$4,268 includes \$2,022 training fee and \$2,246 maintenance allowance.
All other participants: Total \$4,578 includes \$2,332 training fee payable to USDA and \$2,246 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Baton Rouge, Louisiana, with a stopover in Washington, D.C., from September 13 to September 17.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Robert Doan

PM 110/053

ORGANIZATION AND OPERATION OF RURAL
ELECTRIC DISTRIBUTION SYSTEMS
TC 140-12

DATES AND DURATION

6 weeks: May 10-June 18, 1982. Participants should arrive in Washington, D.C., on May 5 for course orientation and administrative procedures.

TARGET AUDIENCE

Mid- and senior-level administrators responsible for establishing and operating electricity distribution systems in rural areas.

OBJECTIVES

Participants will develop knowledge and skills to: (1) understand the U.S. rural electrification system; (2) discuss the growth of such systems in their home countries; (3) analyze the development of the Rural Electrification Administration (REA) cooperative system (and the farmer's role in that system); (4) apply management and cooperative principles; and (5) develop an effective and efficient rural electrification system appropriate for their home country.

CONTENT

This course is designed to provide a general overview of rural electric systems with the Rural Electrification Administration, USDA, and the National Rural Electric Cooperative Association. Additionally, participants will make field visits to selected cooperatives to study their operations and management. They will visit both small- and large-scale cooperatives. Special training is provided in administration, engineering, and finance.

OTHER INFORMATION

Conducted in English by USDA and the Rural Electrification Administration, the National Rural Electric Cooperatives Association, and local cooperatives. Simultaneous interpretation is not available.

COST

Aid participants: Total \$6,316 includes \$3,766 training fee and \$2,550 maintenance allowance.
UN/FAO participants: Total \$6,006 includes \$3,456 training fee and \$2,550 maintenance allowance.
All other participants: Total \$6,316 includes \$3,766 training fee payable to USDA and \$2,550 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

James Gulley

PM 110/058

AGRICULTURAL PROJECT IMPLEMENTATION
TC 140-16

DATES AND DURATION

6 weeks: July 26-September 3, 1982. Participants should arrive in Washington, D.C., on July 21 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff responsible for initiating and managing agricultural development projects.

OBJECTIVES

Participants will develop knowledge and skills to: (1) activate a project plan; (2) specify and schedule work; (3) clarify authority and responsibility; (4) obtain needed references; (5) utilize information feedback and control systems; (6) motivate staff and implement control procedures; and (7) terminate projects and hand over responsibilities to existing organizations.

CONTENT

This course treats project implementation from the point at which a project has been planned, analyzed, and funded. It is designed to assist participants in identifying and solving the organizational and technical problems encountered in implementing a project plan. Various management skills and tools are introduced which will assist in building an organization which facilitates information feedback, corrects errors, or eliminates bottlenecks as they occur. The course also covers monitoring, project costs, and evaluating the progress of the project. In addition, emphasis is given to working with farmers and local decisionmakers to help ensure acceptance, participation, and support for the project. Throughout the course, the philosophy prevails that project teams are only temporary and that at some point in the life of a project the operation will be transferred to an existing organization. The field trip emphasizes local involvement in the implementation of projects.

OTHER INFORMATION

Course is conducted in English by USDA. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,175 includes \$2,825 training fee and \$2,350 maintenance allowance.
UN/FAO participants: Total \$4,865 includes \$2,515 training fee and \$2,350 maintenance allowance.
All other participants: Total \$5,175 includes \$2,825 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Chin Lee

PM 110/057

AGRICULTURAL POLICY FORMULATION AND ANALYSIS
TC 140-19

DATES AND DURATION

5 weeks: April 12-May 14, 1982. Participants should arrive in Washington, D.C., on April 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Mid-level policy analysts in departments or ministries of agriculture, planning, or related fields who are concerned with agricultural policy analysis and implementation.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) understand policy formulation, which includes determining the unique problems in a particular system; (2) identify alternative policies for the agricultural sector to help solve these problems; (3) apply analytical techniques to evaluate the probable outcomes of alternative policies; and (4) understand the interdependence of policy issues and the external forces that affect policy decisions.

CONTENT

Topics include: discussions of national economic goals and the role of agriculture in the attainment of these goals; policy formulation and the role of the policy analyst in that process; the role of data in policy analysis, including types of data needed and procedures for obtaining necessary data; and techniques for analyzing the impact of alternative policies, including function fitting, calculation of elasticity coefficients, resource productivities, and comparative advantages. Analytical techniques are applied to policy issues most relevant to the participants' own countries, such as credit, taxation, price, marketing, trade, mechanization, population, and land tenure. Additional topics addressed are conflicts among goals; the relative importance of alternative goals and trade-offs among goals; and the impact of the political environment and resource limitations on priority policy issues.

OTHER INFORMATION

Conducted in English by USDA with university faculty and other consultants as needed. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$4,638 includes \$2,638 training fee and \$2,000 maintenance allowance.
UN/FAO participants: Total \$4,328 includes \$2,328 training fee and \$2,000 maintenance allowance.
All other participants: Total \$4,638 includes \$2,638 training fee payable to USDA and \$2,000 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Robert Doan

PM 110/053

ECONOMIC FORECASTING FOR AGRICULTURAL
POLICYMAKING AND PLANNING
TC 140-22

DATES AND DURATION

5 weeks: October 18-November 19, 1982. Participants should arrive in Washington, D.C., on October 13 for course orientation and administrative procedures.

TARGET AUDIENCE

Technicians and senior planners in ministries of developing countries. It is most desirable if participants are involved in development planning.

OBJECTIVES

Participants will learn the knowledge and skills to: (1) make economic forecasts based on sound logic; (2) use different forecasting techniques; (3) evaluate forecasting accuracy and procedures; and (4) prepare outlook and situation reports.

CONTENT

To prepare development plans, forecasts must be made for economic phenomena such as product/factor prices, commodity production, balance of payments, product demand, etc. This course helps development planners to improve the accuracy of these forecasts. The role of economic theory and the scientific method are emphasized in developing forecasts for any economic variable. Various forecasting techniques are described and their operational procedures developed in detail. This course stresses the importance of usable presentation of forecasts for either internal or published reports.

OTHER INFORMATION

Conducted in English by USDA in collaboration with university personnel. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$4,714 includes \$2,714 training fee and \$2,000 maintenance allowance.

UN/FAO participants: Total \$4,404 includes \$2,404 training fee and \$2,000 maintenance allowance.

All other participants: Total \$4,714 includes \$2,714 training fee payable to USDA and \$2,000 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Robert Doan

PM 110/053

ESTABLISHING DATA BASES AND ANALYTICAL SYSTEMS
FOR ECONOMIC DECISIONMAKING IN AGRICULTURE
TC 140-26

DATES AND DURATION

13 weeks: May 31-August 27, 1982. Participants should arrive in Washington, D.C., on May 24 for course orientation and administrative procedures.

TARGET AUDIENCE

Technicians and planners in Ministries of Agriculture and Ministries of Planning. Applicants must have the equivalent of a B.S. degree which includes 6 credit hours or 1 academic year of statistics and documents which will allow provisional admission to graduate school.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) use appropriate sampling techniques; (2) select and evaluate variables for sampling; (3) manage a survey; (4) evaluate data collected for economic decisionmaking; and (5) relate the data collected to project evaluation.

CONTENT

This course presents statistical concepts for designing surveys of finite populations including schemes directed toward households, fields, and area frames. The design of data gathering will be viewed as a system and the interaction among component parts will be analyzed. Included will be specification of the processes, planning, and content procedures for a statistical survey, translating objectives into quantifiable variables, field survey work, data processing, and reporting to policymakers. A field trip is planned to observe U.S. agricultural statistics gathering. Participants will use hand-held, programmable calculators (such as the TI-59) to reduce reliance on computer centers. The course fee includes the provision of this equipment. If participants provide their own programmable calculator, their fees will be lowered accordingly.

OTHER INFORMATION

Conducted in English by New Mexico State University, USDA, and the USDA Economic Research Service. Simultaneous interpretation is not available. The field survey may be conducted in Mexico and all participants must have visas which will allow entry into Mexico and return to the United States.

COST

AID participants: Total \$8,256 includes \$4,413 training fee and \$3,843 maintenance allowance
UN/FAO participants: Total \$7,896 includes \$4,053 training fee and \$3,843 maintenance allowance.
All other participants: Total \$8,256 includes \$4,413 training fee payable to USDA and \$3,843 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Las Cruces, New Mexico with a stopover in Washington, D.C., from May 24 to May 28.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

Chin Lee

PM 110/057

EFFECTIVE LIVESTOCK AND CROP
MANAGEMENT FOR SMALL FARMS
TC 140-28

DATES AND DURATION

6 weeks: June 7-July 16, 1982. Participants should arrive in Washington, D.C., on May 31 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff responsible for planning, implementing and carrying out development programs to increase the production and income levels of small farms in developing nations.

OBJECTIVES

Participants will develop knowledge and skills to: (1) understand farming systems; (2) improve their ability to assess available resources; and (3) conduct appropriate analyses to determine optimal production systems for small farm agriculture.

CONTENT

Development of small-scale agriculture depends on effectively identifying and managing the optimal use of available resources. Course content focuses on identifying alternative crop and livestock production systems compatible with the resource base and on methods useful in selecting the best system. The course also emphasizes analytical techniques used in farm planning, farm budgeting, cash flow analysis, and evaluation of investment alternatives, and the effects of risk, uncertainty, and farm-household relationships. Consideration is given to the supply of production inputs and product marketing.

OTHER INFORMATION

Conducted in English by Colorado State University. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$5,148 includes \$2,902 training fee and \$2,246 maintenance allowance.
UN/FAO participants: Total \$4,838 includes \$2,592 training fee and \$2,246 maintenance allowance.
All other participants: Total \$5,148 includes \$2,902 training fee payable to USDA and \$2,246 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Ft. Collins, Colorado, with a stopover in Washington, D.C., from May 31 to June 4.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

James Gulley

PM 110/058

REGIONAL AGRICULTURAL RESOURCE DEVELOPMENT
TC 140-29

DATES AND DURATION

5 weeks: May 24-June 25, 1982. Participants should arrive in Washington, D.C., on May 17 for course orientation and administrative procedures.

TARGET AUDIENCE

Mid- and senior-level planners, technical resource persons, decisionmakers, and managers in Ministries of Agriculture and Ministries of Planning.

OBJECTIVES

Participants will: (1) learn a systematic framework for planning and managing agricultural development programs; (2) identify key elements which have contributed to the success of Tennessee Valley Authority (TVA) programs; (3) examine specific scientific, economic, social, and administrative techniques of program development; and (4) relate TVA experiences to home-country settings.

CONTENT

The training plan for this course is built around visits to various types of agricultural development projects within the Tennessee Valley and discussions with farmers, community leaders, agribusiness managers, local extension agents, extension specialists, and Tennessee Valley Authority staff. The early weeks will be spent in the eastern sections of the region where the problems of steep topography, small landholdings, and resulting low farm incomes are most severe. As the course moves to the western sections, the problems of large family farms which rely heavily on cash crops will be discussed. Both the field trips and discussions will focus on key tasks and important principles for successful implementation of a program. These include working with and through other government agencies, developing and reinforcing support services, involving local people, setting manageable scope and objectives, identifying problems and potentials, organizing the undertaking, monitoring and evaluating, project planning, and technology transfer and adaptation.

OTHER INFORMATION

Conducted in English by the Tennessee Valley Authority. Simultaneous interpretation is not available. Credit may be arranged with the university in which the participant is enrolled.

COST

AID participants: Total \$5,585 includes \$3,035 training fee and \$2,550 maintenance allowance.

UN/FAO participants: Total \$5,275 includes \$2,725 training fee and \$2,550 maintenance allowance.

All other participants: Total \$5,585 includes \$3,035 training fee payable to USDA and \$2,550 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Florence, Alabama, with a stopover in Washington, D.C., from May 17 to May 21.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

James Gulley

PM 110/058

CONTRACT ADMINISTRATION IN RURAL DEVELOPMENT
TC 140-30

DATES AND DURATION

4 weeks: Spring 1982 (exact dates to be announced). Participants should arrive in Washington, D.C. 5 days prior to the starting date for course orientation and administrative procedures.

TARGET AUDIENCE

Mid- and senior-level administrators or contract officers responsible for government contracting.

OBJECTIVES

Participants will be able to: (1) prepare and publicize invitations for bids and administer submission of bids and awarding of contracts; (2) administer contract compliance; (3) recognize situations leading to claims by the contractor; (4) protect the public interest by prompt and fair settlement of problems during performance; (5) negotiate equitable adjustments; (6) determine the party responsible for increased costs; (7) terminate contracts; and (8) understand legal aspects of contracting.

CONTENT

This course includes four major areas of contract administration: contracting by formal advertising, including preparation, publicizing, and the submissions of bids and awarding of contracts; government contract negotiations, including preparation of the solicitation package, solicitation and evaluation of proposals, contract types, requirements of cost and price analysis, planning for negotiations, and negotiation techniques; government contract administration, including functions, skills, and activities of procurement and contracting officers; and practical training on contracting with USDA agencies in the participant's field of specialization.

OTHER INFORMATION

Conducted in English by the General Services Administration (GSA) and USDA. Simultaneous interpretation is not available. USDA places participants in a GSA course which has a maximum enrollment of 50. USDA plans 1-week special programming following the GSA course. Special programming may include time with the AID Contract Office.

COST

AID participants: Total \$4,635 includes \$2,885 training fee and \$1,750 maintenance allowance.

UN/FAO participants: Total \$4,350 includes \$2,600 training fee and \$1,750 maintenance allowance.

All other participants: Total \$4,635 includes \$2,885 training fee payable to USDA and \$1,750 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

James Gulley

PM 110/058

DEVELOPING MARKETS FOR AGRICULTURAL PRODUCTS
TC 150-5

DATES AND DURATION

10 weeks: June 7-August 13, 1982. Participants should arrive in Washington, D.C., on May 31 for orientation and administrative procedures.

TARGET AUDIENCE

The staff of institutions responsible for domestic or international marketing and academic participants interested in marketing.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) understand the role of the agricultural sector in economic development; (2) comprehend the role of multinational firms in development and develop a basis for negotiating with multinational firms; (3) calculate and explain financial measures used for industry feasibility analysis; (4) understand export marketing to be able to take a product from one's own country and prepare and export that product; (5) understand the role of international trade in economic development.

CONTENT

This course includes: role of marketing in development and in human nutrition; discussion of participants' home-country marketing systems; establishment and improvement of a marketing infrastructure; and the mechanics of international trade such as the conduct of feasibility studies, methods of direct and indirect exporting, shipping documentation, alternative financial arrangements, packaging, and insurance. Techniques of conducting market analyses and evaluations are examined including the economics of establishing grading systems. Field trips are made to small, well-managed marketing projects and enterprises.

OTHER INFORMATION

Course is conducted in English by Colorado State University. Simultaneous interpretation is not available. All participants take the course for academic credit.

COST

AID participants: Total \$7,828 includes \$4,060 training fee and \$3,768 maintenance allowance.

UN/FAO participants: Total \$7,493 includes \$3,725 training fee and \$3,768 maintenance allowance.

All other participants: Total \$7,828 includes \$4,060 training fee payable to USDA and \$3,768 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Ft. Collins, Colorado, with a stopover in Washington, D.C., from May 31 to June 4.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

James Gulley

PM 110/058

AGRICULTURAL COMMUNICATION AND MEDIA STRATEGIES
TC 110-3

DATES AND DURATION

6 weeks: July 12-August 20, 1982. Participants should arrive in Washington, D.C., on July 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Agricultural, nutrition, and livestock information specialists and others involved directly in the operation of nonformal education and outreach programs in agriculture and rural development. Designed for those needing a solid grounding in basic communications skills and knowledge. Not appropriate for those with Masters or Doctorate degrees in Communications.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) analyze rural audiences and their problems; (2) develop measurable communications objectives; (3) select appropriate media and; (4) plan and develop multimedia communications projects for selected audiences.

CONTENT

This course focuses on analysis and planning of more effective rural communications systems in developing countries. Participants work in groups to design, and to produce significant portions of, multimedia communications projects for rural audiences. Participants receive training in the practical aspects of communications theory, audience analysis, media selection, message design, production and evaluation. Each participant has the opportunity to increase production skills in one or two media during a two-week field trip. Throughout the course, the emphasis is upon the resources and needs of the developing countries.

OTHER INFORMATION

Conducted in English by USDA, university faculty, and consultants. Simultaneous interpretation is not available. To help focus on the situation and needs of individual participants, we request that participants bring samples of information materials from their organization.

COST

AID participants: Total \$5,740 includes \$3,390 training fee and \$2,350 maintenance allowance.

UN/FAO participants: Total \$5,430 includes \$3,080 training fee and \$2,350 maintenance allowance.

All other participants: Total \$5,740 includes \$3,390 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations and private organizations. Can be conducted in English and Spanish.

COORDINATOR

David Winkelmann

PM 110/044

DEVELOPMENT AND OPERATION OF AGRICULTURAL EXTENSION PROGRAMS
TC 110-5

DATES AND DURATION

1st section - 9 weeks, University of Missouri -- June 7-August 6, 1982. Participants should arrive in Washington, D.C., on May 31 for course orientation and administrative procedures.

2nd section - 10 weeks, University of Wisconsin -- September 7-November 12, 1982. Participants should arrive in Washington, D.C., on August 30 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff responsible for extension activities or other nonformal education programs.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) understand the role of extension in overall agricultural and rural development; (2) use extension techniques to transfer latest research findings to rural families; and (3) understand programs of various other government and private groups, and the complementary roles played with extension.

CONTENT

Covers the roles of extension, research, and teaching in agricultural development and the roles of subject matter specialists, administrators, county agents, and various other extension staff and the methods they use to perform those roles. Other major topics include principles of administration and supervision; program planning and evaluation; and the interrelationships among extension, soil conservation, credit, and other agricultural programs. The course will emphasize how extension complements and is complemented by these programs. In addition, communication principles and methods and leadership theories will be examined. Two or three weeks of the program will be practical on-the-job experience with agents at the county level (two participants per county).

OTHER INFORMATION

Conducted in English by the University of Missouri and the University of Wisconsin.

COST

AID participants: Total \$6,705 includes \$3,655 training fee and \$3,050 maintenance allowance.

UN/FAO participants: Total \$6,370 includes \$3,320 training fee and \$3,050 maintenance allowance.

All other participants: Total \$6,705 includes \$3,655 training fee payable to USDA and \$3,050 maintenance allowance payable directly to the participant.

TRAVEL

Participants in the first section should be provided round trip air tickets from their home countries to Columbia, Missouri, with a stopover in Washington, D.C., from May 31 to June 4. Participants in the second section should be provided round trip air tickets from their home countries to Madison, Wisconsin, with a stopover in Washington, D.C., from August 30 to September 4.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Cynthia Connolly

PM 110/052

APPLICATION AND DIFFUSION OF AGRICULTURAL RESEARCH
RESULTS TO THE COMMUNITY LEVEL
TC 110-14

DATES AND DURATION

6 weeks: August 23-October 1, 1982. Participants should arrive in Washington, D.C., on August 18 for course orientation and administrative procedures.

TARGET AUDIENCE

Senior personnel responsible for research, policymaking, planning, and implementing outreach programs for small-scale farmers.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) diagnose their home-country situations using social science theory and research findings; (2) select methods for disseminating agricultural research results from the laboratory to the community; and (3) plan the adoption of research findings in relation to the roles of researchers in institutions, extension and field workers, and target population groups.

CONTENT

The course will focus on the planning, implementation, and evaluation of programs aimed at large-scale use of research knowledge to increase food production and improve marketing. The emphasis will be on social science theories about disseminating information and the use and diffusion of knowledge; how research is used in the farm sector; an examination of the roles of policy and administration, technicians and disseminators, farmers and local organizations; and a review of communications and citizen participation in outreach programs. The course uses case studies from developing nations extensively. Participants' own skills will be reviewed.

OTHER INFORMATION

Conducted in English by USDA in cooperation with university faculty and consultants. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,019 includes \$3,669 training fee and \$2,350 maintenance allowance.
UN/FAO participants: Total \$5,709 includes \$3,359 training fee and \$2,350 maintenance allowance.
All other participants: Total \$6,019 includes \$3,669 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English only.

COORDINATOR

Giuliana Keller

PM 110/054

AGRICULTURAL TRAINER DEVELOPMENT
TC 110-15

DATES AND DURATION

8 weeks: July 26-September 17, 1982. Participants should arrive in Washington, D.C., on July 21 for course orientation and administrative procedures.

TARGET AUDIENCE

Planners, administrators, and instructors who work at in-service training programs, farmer training centers, training institutes, and outreach programs concerned with agriculture, livestock, home economics, nutrition, and integrated rural development.

OBJECTIVES

Participants will develop knowledge and skills to: (1) improve training effectiveness using training resources to give the most appropriate information and skills to trainees; and (3) strengthen and update the knowledge they have in their own areas of specialization.

CONTENT

The course includes introductory classroom theory--how to assess trainee needs and develop programs accordingly; how to assess and work with instructor strengths/weaknesses; the role of training in development; communication principles, including making and using visuals; teaching strategies and alternative methods; and related subjects. Participants observe training in the field for 2 weeks, individually selecting the location according to their subject interests. The group will then discuss both concepts and the methods they observed, analyze ways these concepts and methods might be used elsewhere, and continue the study of theory started earlier. Participants will also develop, present, and critique training materials which they can use in their home countries.

OTHER INFORMATION

Conducted in English by USDA with assistance from university personnel and other consultants. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,508 includes \$3,258 training fee and \$3,250 maintenance allowance.

UN/FAO participants: Total \$6,198 includes \$2,948 training fee and \$3,250 maintenance allowance.

All other participants: Total \$6,508 includes \$3,258 training fee payable to USDA and \$3,250 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

David Winkelmann

PM 110/044

VOCATIONAL AGRICULTURAL EDUCATION SYSTEMS IN DEVELOPING COUNTRIES
TC 110-16

DATES AND DURATION

6 weeks: June 14-July 23, 1982. Participants should arrive in Washington, D.C., on June 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Personnel responsible for planning and implementing vocational and extension programs in agriculture. This course is appropriate for country teams.

OBJECTIVES

Participants will: (1) increase their understanding of various means of financing, administering, and organizing a national system for vocational education in agriculture; (2) increase skills to develop, implement, and evaluate a comprehensive agricultural curriculum for a secondary or postsecondary school system; (3) acquire skills to develop and implement administrative policies and procedures for a secondary agricultural school; (4) be able to select and use appropriate teaching methodologies for youth and adults; and (5) learn to identify and collect appropriate data upon which to make curricular decisions.

CONTENT

Participants examine the roles of Federal, State, and local governments in organization, administration, and financing of vocational agricultural education, and the types of curriculum being offered in this field at the secondary, postsecondary, and university level. Participants acquire knowledge and skills in curriculum development, evaluation, school administration, teaching methodologies, developing occupational experience programs, and in collecting and examining data upon which to make curriculum and program decisions. Participants are provided an opportunity to apply the knowledge and skills acquired to a real-life problem or program in their own country. This might include developing a curriculum for a school, developing an evaluation plan for a program, or developing a plan for the use of a school farm.

OTHER INFORMATION

Conducted in English by New Mexico State University. Simultaneous interpretation is not available.

COST

AID participants: Total \$4,695 includes \$2,600 training fee and \$2,095 maintenance allowance.

UN/FAO participants: Total \$4,385 includes \$2,290 training fee and \$2,095 maintenance allowance.

All other participants: Total \$4,695 includes \$2,600 training fee payable to USDA and \$2,095 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to El Paso, Texas, with a stopover in Washington, D.C., from June 7 to June 11.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Judith Evans

PM 110/055

COMMUNICATIONS PLANNING AND STRATEGY
TC 110-18

DATES AND DURATION

3 weeks: July 19-August 6, 1982. Participants should arrive Washington, D.C., on July 12 for course orientation and administrative procedures.

TARGET AUDIENCE

Senior level people who plan programs and projects related to agriculture and rural development. The course is especially designed for people who are not communications specialists (i.e., agronomists, livestock specialists, program administrators). Heads of communications programs could likewise benefit from the course, but operational level communications specialists would benefit more from TC 110-3 "Agricultural Communications and Media Strategies."

OBJECTIVES

Participants will develop knowledge and skills for planning communication and nonformal educational components into their program activities.

CONTENT

The course will use case studies, the participants' own experiences, and material presented by faculty to deal with such problems as: how to develop appropriate communications strategies for different groups based on sectoral policies and available media; how to mobilize resources for communication programs; how to deal with the problems of backup and support for paraprofessionals, promoting community participation, and coordinating communication components in a decentralized service delivery system; and how to measure costs and results of communication activities. As a major project of the course, each participant will develop a communication plan and strategy appropriate to his/her own country situation.

OTHER INFORMATION

Conducted in English by Cornell University. Academic credit is available.

COST

AID participants: Total \$2,798 includes \$1,298 training fee and \$1,500 maintenance allowance.

UN/FAO participants: Total \$2,513 includes \$1,013 training fee and \$1,500 maintenance allowance.

All other participants: Total \$2,798 includes \$1,298 training fee payable to USDA and \$1,500 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Ithaca, New York, with a stopover in Washington, D.C., from July 12-July 16.

OVERSEAS AVAILABILITY

Available in English for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations.

COORDINATOR

David Winkelmann

PM 110/044

COMMUNICATION SKILLS FOR DEVELOPMENT PROFESSIONALS
110-19

DATES AND DURATION

Two weeks: December 27, 1982-January 7, 1983.

TARGET AUDIENCE

Mid-level technical or professional personnel who are undertaking academic or technical training in agriculture and related fields. Designed primarily for participants enrolled in ongoing programs in the United States.

OBJECTIVES

Participants will: 1) improve their understanding of basic communication processes relevant to their work and responsibilities; 2) plan for adaptation and use of their academic training; 3) develop communication strategies for use in training; and 4) learn skills for communicating effectively with family members and co-workers in their home communities and organizations.

CONTENT

The program focuses upon: 1) the communication process--perception, meaning, inference, feedback, overload, noise, stereotyping, message fidelity, receiver orientation, empathy, and listening -- and how this process is used in interrelating people, information, projects, and organizations; 2) developing and maintaining effective working relationships with co-workers, supervisors, subordinates, and foreign counterparts; 3) the role of communication in social change, and 4) communication strategies for reentry with particular reference to perceptions and expectations of family and co-workers, problems of over-enthusiasm and haste, and sharing observations and suggestions by former participants.

OTHER INFORMATION

Conducted in English by university faculty and consultants.

COST

AID participants: Total \$1,960 includes \$1,260 training fee and \$700 maintenance allowance.

UN/FAO participants: Total \$1,675 includes \$975 training fee and \$700 maintenance allowance.

All other participants: Total \$1,960 includes \$1,260 training fee payable to USDA and \$700 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, Portuguese, and Spanish.

COORDINATOR

David Winkelmann

PM 110/044

MANAGEMENT AND ORGANIZATIONAL CHANGE -
AN ORGANIZATION DEVELOPMENT APPROACH
TC 140-14

DATES AND DURATION

6 weeks: May 3-June 11, 1982. Participants should arrive in Washington, D.C., on April 28 for course orientation and administrative procedures.

TARGET AUDIENCE

Senior level administrators and managers in agriculture or rural development. May include permanent ministers or secretaries, regional or state heads of agriculture, or heads of large projects in organizations. The course is designed for staff with substantial management responsibility.

OBJECTIVES

Participants will develop knowledge and skills to: (1) increase competency in exercising leadership skills; (2) determine group interactions including patterns of communication and authority; (3) diagnose problems of organizational structure and learn how to design well integrated organizations; (4) analyze and solve problems of interdepartmental or inter-agency conflict; (5) implement modern budgeting and planning systems; and (6) initiate, manage, and evaluate organizational change.

CONTENT

The course includes training in leadership and consultative skills; group decisionmaking; organization-development (OD) skills, including problem diagnosis, planning, implementation, and evaluation of change; administrative decision analysis, zero-based budgeting, and planning tools such as the Critical Path Method. Case studies of administrative change in agricultural organizations in developing countries are analyzed. Participants visit agricultural organizations and examine different management systems and practices. Projects are then developed for introducing organizational change in national agencies. Training methods include individual and small group exercises, case materials, and an OD simulation exercise. Throughout the seminar, participants apply what they have learned about OD to their own organizations.

OTHER INFORMATION

Conducted in English by George Washington University, consultants, and USDA. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,191 includes \$3,841 training fee and \$2,350 maintenance allowance.

UN/FAO participants: Total \$5,881 includes \$3,531 training fee and \$2,350 maintenance allowance.

All other participants: Total \$6,191 includes \$3,841 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, Portuguese, and Spanish.

COORDINATOR

David Winkelmann

PM 110/044

MANAGEMENT AND THE ROLE OF WOMEN IN DEVELOPMENT
TC 140-17

DATES AND DURATION

6 weeks: March 22-April 30, 1982. Participants should arrive in Washington, D.C. on March 17 for orientation.

TARGET AUDIENCE

Senior level women with management responsibilities in agriculture, private voluntary organizations, rural development, nutrition, and related areas. Also, women with promotion potential to senior management.

OBJECTIVES

Participants will develop knowledge and skills to: (1) use executive skills in planning, decisionmaking, and interpersonal communication; (2) anticipate, analyze, and manage special problems that may occur when women are leaders in predominantly male organizations; (3) articulate and provide leadership to help women assume a greater role in development; (4) demonstrate more effective influence/leadership skills; (5) be creative and objective in their leadership position and better coordinate the inclusion of other women in organization programs and projects; and (6) implement changes within their organization, both structurally and procedurally, which use resources more effectively.

CONTENT

Course includes -- self-diagnosis of management and interpersonal skills; women in development issues; goal setting; power structures and roles in organizations; problem-solving methodologies; building support networks; negotiation skills, strategy, and tactics; and open-systems planning. Instruction methods are highly individualized and interactive. Participants analyze women-in-development case studies using organization and management principles. Videotape is used extensively for self-assessment purposes. The fourth week of the program will be devoted to on-the-job experience in an area related to the participant's position in the home country.

OTHER INFORMATION

Conducted in English by USDA in collaboration with universities, consultants, AID, and international organization staffs. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,527 includes \$3,177 training fee and \$2,350 maintenance allowance.

UN/FAO participants: Total \$5,217 includes \$2,867 training fee and \$2,350 maintenance allowance.

All other participants: Total \$5,527 includes \$3,177 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and French.

COORDINATOR

Giuliana Keller

PM 110/054

MANAGEMENT OF AGRICULTURAL ORGANIZATIONS
TC 140-23

DATES AND DURATION

8 weeks: May 17-July 9, 1982. Participants should arrive in Washington, D.C., on May 12 for course orientation and administrative procedures.

TARGET AUDIENCE

Entry level to mid-level managers in agricultural or rural development organizations.

OBJECTIVES

Participants will develop: 1) an understanding of basic management concepts; (2) essential management skills; and (3) strategies for using these concepts and skills in their own situations.

CONTENT

This course introduces the participants to basic management concepts and practices and helps them develop skills to manage agricultural and rural development organizations. Emphasis is placed on program management, supervision, work organization, personnel management, office management, administrative management, communication, and control systems. Through major use of case studies, simulations, and role playing, course content is related to participants' training needs and situations they experience at home.

OTHER INFORMATION

Conducted in English by USDA, university faculty, and consultants. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,208 includes \$3,158 training fee and \$3,050 maintenance allowance.
UN/FAO participants: Total \$5,898 includes \$2,848 training fee and \$3,050 maintenance allowance.
All other participants: Total \$6,208 includes \$3,158 training fee payable to USDA and \$3,050 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Judith Evans

PM 110/055

MANAGEMENT OF AGRICULTURAL RESEARCH
TC 140-24

DATES AND DURATION

6 weeks: April 5-May 14, 1982. Participants should arrive in Washington, D.C., on March 31 for course orientation and administrative procedures.

TARGET AUDIENCE

Mid- and senior-level managers of agricultural research institutes at the regional or national level.

OBJECTIVES

Participants will develop knowledge and skills to: (1) understand the special attributes required to manage an agricultural research program; (2) identify and prioritize the needs for new knowledge and technology; (3) transform a given resource base of personnel, funds, and facilities into a systematic, coordinated effort to solve problems; and (4) plan for collaboration with outreach organizations to disseminate research results.

CONTENT

This course emphasizes the uniqueness of agricultural research. Participants will examine the ways agricultural research is organized, funded, and managed in various countries and focus on the problems of research management being experienced in their own countries. Specific topics include: the research environment, the role of agricultural research in the national society and economy, defining research needs and priorities, development of a comprehensive and integrated research plan, effective use of resources, management of scientific and research staff, and use of research results.

OTHER INFORMATION

Conducted in English by USDA, university faculty, and consultants. Simultaneous interpretation is not available.

COST

AID participants: Total \$4,873 includes \$2,523 training fee and \$2,350 maintenance allowance.

UN/FAO participants: Total \$4,563 includes \$2,213 training fee and \$2,350 maintenance allowance.

All other participants: Total \$4,873 includes \$2,523 training fee payable to USDA and \$2,350 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Richard Affleck

PM 110/022

INITIATING AND MANAGING
INTEGRATED RURAL DEVELOPMENT PROGRAMS
TC 140-25

DATES AND DURATION

8 weeks: October 4-November 26, 1982. Participants should arrive in Washington, D.C., on September 29 for course orientation and administrative procedures.

TARGET AUDIENCE

Managers or potential managers responsible for designing, initiating, and carrying out integrated rural development programs. Often these programs will consist of several inter-related development projects.

OBJECTIVES

Participants will learn to: (1) understand the relationships between policy, programs, and projects in integrated rural development; (2) improve their knowledge and skill in program design, initiation, and management; 3) develop the skills to manage complex organizational links; and (4) increase their awareness of their own perspectives and strategies for initiating and managing programs.

CONTENT

This multi-disciplinary course on rural development emphasizes: problem solving, decisionmaking, coordination, communication, planning, control, management systems, leadership, action research and data feedback systems, and program/project implementation and management. It looks at the multisectoral focus required for successful management of broad programs, and the coordination of various horizontal links within and among the involved sectors to effectively initiate, monitor, and evaluate programs. Simulations, role playing, individual exercises, group exercises, and field excursions are integral parts of the course.

OTHER INFORMATION

Conducted in English by USDA with university faculty and consultants. Simultaneous interpretation is not available.

COST

AID participants: Total \$7,106 includes \$4,056 training fee and \$3,050 maintenance allowance.
UN/FAO participants: Total \$6,796 includes \$3,746 training fee and \$3,050 maintenance allowance.
All other participants: Total \$7,106 includes \$4,056 training fee payable to USDA and \$3,050 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations and private organizations. Can be conducted in English, French and Spanish.

COORDINATOR

Lisa Zeigler

PM 110/050

KEYS TO AGRICULTURAL DEVELOPMENT AT THE LOCAL LEVEL
TC 140-32

DATES AND DURATION

2 weeks: Sections I & II - May 10-21, 1982; Section III - Aug. 2-13, 1982; Sections IV & V - Aug. 9-20, 1982; Section VI - Aug. 16-27, 1982.

TARGET AUDIENCE

Academic participants from all agricultural or rural development disciplines. Designed primarily for participants enrolled in ongoing programs in the United States.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) understand the interaction between technical agriculture and socioeconomic development; (2) identify key factors in the development of agriculture; and (3) analyze the process of agricultural development in a community.

CONTENT

This 2-week program enables participants to examine the agricultural development process by identifying and analyzing key social, economic, and political factors and how they interrelate. It is highly experiential with illustrative field trips, individual and group work, and home country planning. By capitalizing on the diversity of its participants, the course offers a rare opportunity for cross-discipline consultation to adapt course work to home country realities.

OTHER INFORMATION

Conducted in English by Cornell University, New Mexico State University, Utah State University, Washington State University, the University of Wisconsin, Tuskegee Institute and Western Illinois University. Simultaneous interpretation is not available.

COST

AID participants: Total \$1,665 includes \$965 training fee and \$700 maintenance allowance.
UN/FAO participants: Total \$1,640 includes \$940 training fee and \$700 maintenance allowance.
All other participants: Total \$1,665 includes \$965 training fee payable to USDA and \$700 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to the university conducting their section of the course.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

Judith Evans

PM 110/055

AGRICULTURAL RESEARCH METHODOLOGY
TC 110-17

DATES AND DURATION

7 weeks: June 7-July 23, 1982. Participants should arrive in Washington, D.C., on May 31 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff with an intermediate level statistical background who are or will be designing and carrying out agricultural research programs. This includes research related to agronomy, rural sociology, economics, forestry, plant pathology, horticulture, and animal science.

OBJECTIVES

Participants will: (1) increase their ability to plan and conduct research giving consideration to potential users of research results and their needs; (2) learn research methodology, including data collection and analysis, with emphasis on applied research; (3) develop an understanding of the links between research and extension so they can use research results as a basis for action; and (4) observe field and laboratory procedures practiced by experiment station scientists.

CONTENT

General analytical methods and statistical techniques. Includes an introduction to statistics; probability; binomial, multinomial, hypergeometric, and poisson probability functions; continuous random variables and the normal distribution; sampling and experimental design; estimating population parameters; hypothesis testing; one-way, two-way, and factorial analyses of variance; covariance analysis, correlation regression procedure, and lattice experiment. Specific applications are made to various subject areas, with a significant proportion of time devoted to practical "hands on" field experience. Includes one-on-one consultation with experiment station statisticians to develop specific expertise applicable to home countries.

OTHER INFORMATION

Conducted in English by Kansas State University. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,060 includes \$2,464 training fee and \$2,596 maintenance allowance.

UN/FAO participants: Total \$4,750 includes \$2,154 training fee and \$2,596 maintenance allowance.

All other participants: Total \$5,060 includes \$2,464 training fee payable to USDA and \$2,596 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Manhattan, Kansas, with a stopover in Washington, D.C., from May 31 to June 4.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Richard Affleck

PM 110/022

IRRIGATION PROBLEMS AND PRACTICES
TC 120-1

DATES AND DURATION

8 weeks: June 14-August 6, 1982. Participants should arrive in Washington, D.C., on June 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Irrigation practitioners with an educational background at the B.S. or M.S. level in agronomy or agricultural engineering.

OBJECTIVES

Participants will: (1) gain knowledge and practical experience in onfarm water management and crop production; (2) develop skills to plan, design, establish, and maintain new irrigation systems; and (3) develop skills to increase the efficiency of existing irrigation systems in their home countries.

CONTENT

For the first 5 weeks, the course is conducted primarily on the Colorado State University campus and includes lectures, field and laboratory practice, field training at the agronomy experiment station farm, and seminars centered on participant presentations of irrigation problems in their home countries. Topics covered include basic soils; soil-water-plant relationships; land leveling; irrigation methods and practices; administration and distribution of water; water law; water quality; salinity; drainage problems and remedies; economics of irrigation; and extension methods. The last 3 weeks of the course consist of field visits to irrigated farms in the San Joaquin and Salinas Valleys of California.

OTHER INFORMATION

Conducted in English by Colorado State University. Simultaneous interpretation is not available. Academic credit is available for qualified participants.

COST

AID participants: Total \$6,705 includes \$3,910 training fee and \$2,795 maintenance allowance.

UN/FAO participants: Total \$6,395 includes \$3,600 training fee and \$2,795 maintenance allowance.

All other participants: Total \$6,705 includes \$3,910 training fee payable to USDA and \$2,795 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Ft. Collins, Colorado, with a stopover in Washington, D.C., from June 7 to June 11, and returning home from Fresno, California, on August 7.

OVERSEAS AVAILABILITY

TC 120-14 "Assessment and Improvement of Onfarm Irrigation Systems" is a similar course specifically designed for overseas presentation.

COORDINATOR

Phil Harlan

PM 110/048

SOIL TESTING, SOIL CLASSIFICATION, AND FERTILITY MANAGEMENT
TC 120-5

DATES AND DURATION

8 weeks: June 7-July 30, 1982. Participants should arrive in Washington, D.C., May 31 for course orientation and administrative procedures.

TARGET AUDIENCE

Agronomists or soil scientists with the equivalent of a B.S. degree who are involved in soil testing, classification, or management, or soil fertility programs.

OBJECTIVES

Participants will develop knowledge and skills to: (1) conduct soil sampling, testing, and analysis; (2) perform laboratory procedures for soil classification; (3) prepare soil maps; (4) use soil testing and classification in integrated programs for soil management and soil fertility; and (5) develop educational, research, and extension programs related to soil management and fertility.

CONTENT

This course focuses on field and laboratory training which comprise the practical training in soil management and soil fertility. Topics covered include soil sampling and testing; identification of major physical and chemical characteristics of different soils; the relationship of soil genesis, morphology, physical, and chemical properties in soil classification; and the preparation of soil maps based on field surveys and laboratory analysis. In addition, a 2-week regional field trip will be conducted for further practical experience with different soil types.

OTHER INFORMATION

Conducted in English by the University of Illinois. Simultaneous interpretation is not available.

COST

AID participants: Total \$6,492 includes \$3,697 training fee and \$2,795 maintenance allowance.

UN/FAO participants: Total \$6,182 includes \$3,387 training fee and \$2,795 maintenance allowance.

All other participants: Total \$6,492 includes \$3,697 training fee payable to USDA and \$2,795 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Champaign/Urbana, Illinois, with a stopover in Washington, D.C., from May 31 to June 4.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English or Spanish.

COORDINATOR

Chris Seubert

PM 110/041

TECHNICAL AND ECONOMIC ASPECTS OF SOYBEAN PRODUCTION
TC 120-6

DATES AND DURATION

12 weeks: May 17-August 6, 1982. Participants should arrive in Washington, D.C., on May 10 for course orientation and administrative procedures.

TARGET AUDIENCE

Agronomists with the equivalent of a B.S. degree who are involved in soybean research, production, or extension programs.

OBJECTIVES

Participants will: (1) learn the technical and economic principles and practices of soybean production; (2) study the research, educational, and regulatory functions that support soybean production; and (3) consider expanding the production and use of soybeans in their own countries to alleviate the protein and calorie deficiencies in human diets.

CONTENT

Course topics include the characteristics of the soybean plant and its adaptability to different environments; soybean breeding and selection of varieties for varying conditions; cultural practices to improve soybean yields; seedbed preparation; time and rate of planting; inoculants and their use in nitrogen fixation; insect, disease, and weed control; and harvesting and storage for food and seed uses. All participants will conduct an individual field research project.

OTHER INFORMATION

Conducted in English by the University of Illinois in cooperation with the International Soybean Program (INTSOY). Simultaneous interpretation is not available.

COST

AID participants: Total \$8,781 includes \$4,985 training fee and \$3,796 maintenance allowance.

UN/FAO participants: Total \$8,446 includes \$4,650 training fee and \$3,796 maintenance allowance.

All other participants: Total \$8,781 includes \$4,985 training fee payable to USDA and \$3,796 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Champaign/ Urbana, Illinois, with a stopover in Washington, D.C., from May 10 to May 14.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Earl Terwilliger

PM 110/040

SOYBEAN PROCESSING FOR FOOD USES
TC 120-7

DATES AND DURATION

7 weeks: May 17-July 2, 1982. Participants should arrive in Washington, D.C., on May 10 for course orientation and administrative procedures.

TARGET AUDIENCE

Food scientists or nutritionists with the equivalent of a B.S. degree who are involved in research or processing of soybeans for human food.

OBJECTIVES

Participants will: (1) identify processes involved in the use of soybeans and soybean products for human food; (2) study processing of whole soybeans; and (3) develop skills to use soybeans as an improved source of protein and calories in home countries.

CONTENT

Course teaches the principles of preparing human foods from soybeans. Emphasis is placed on the wide assortment of food products that can be made from the whole bean using its high protein and calorie content. Topics include an overview of the International Soybean Program, soybean production in developing countries, human nutritional requirements, functional properties of protein in food; quality control; management practices; problems in harvesting and handling raw soybeans; drying of soy products; and production and processing economics. In addition, there is extensive laboratory work, several local visits and a 1-week field trip to midwest soybean companies to provide participants with practical "hands-on" experience.

The course examines industrial processes for converting soybeans into human food, as well as preparation methods based on small-scale home and village technology.

Participants will also attend the annual conference of the Institute of Food Technologists.

OTHER INFORMATION

Conducted in English by the International Soybean Program (INTSOY) of the University of Illinois. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,694 includes \$3,098 training fee and \$2,596 maintenance allowance.

UN/FAO participants: Total \$5,384 includes \$2,788 training fee and \$2,596 maintenance allowance.

All other participants: Total \$5,694 includes \$3,098 training fee payable to USDA and \$2,596 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Champaign/ Urbana, Illinois, with a stopover in Washington, D.C., from May 10 to May 14.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Earl Terwilliger

PM 110/040

ASSESSMENT AND IMPROVEMENT OF ONFARM IRRIGATION SYSTEMS
TC 120-14

DATES AND DURATION

4 weeks: Presented overseas only. Dates arranged with sponsor.

TARGET AUDIENCE

Agriculturalists such as engineers, agronomists, or extension specialists working directly with onfarm irrigation systems.

OBJECTIVES

Participants will develop knowledge and practical skills to: (1) examine farm irrigation practices and identify physical constraints and socioeconomic problems faced by farmers growing irrigated crops; (2) use field measurement techniques to evaluate the efficiency of water control and water use; (3) plan efficient irrigation practices for specific crops grown on particular soils to maximize yields and quality; and (4) evaluate irrigation methods and develop practical and economical improvements.

CONTENT

Specific topics covered during the course include: the relationship of efficient water use to farm water management; field surveys; general principles of flow measurement; movement, retention, and use of water; methods to determine soil moisture content; consumptive use of water and peak period use rates; surface irrigation methods, including field evaluation of such methods and factors important to the efficient operation of each method; and technological changes and institutional modifications to improve water quantity and quality as well as water management. Frequent field visits provide practical experience in collecting data, evaluating water management problems on farms, and planning improvements.

OTHER INFORMATION

Conducted by USDA in collaboration with university personnel and consultants.

COST

The cost of the course is approximately \$35,000. The budget covers instruction for about 25 participants and includes all course materials, salaries, and round trip air fare for course instructors and miscellaneous expenses. Costs are negotiated directly with the sponsor.

OVERSEAS AVAILABILITY

Course is designed exclusively for overseas presentation. Available in English, French, Spanish, and Arabic. A similar course designed for U.S. presentation is TC 120-1, Irrigation Problems and Practices.

COORDINATOR

Peg Hively

PM 110/035

WATER HARVESTING FOR AGRICULTURAL PRODUCTION
TC 120-25

DATES AND DURATION

4 weeks: July 12-August 6, 1982. Participants should arrive in Washington, D.C. on July 5 for course orientation and administrative procedures.

TARGET AUDIENCE

Agricultural personnel with a B.S., M.S., or Ph.D. in plant sciences, soils, agricultural engineering, or range management and other personnel interested in water harvesting (runoff farming).

OBJECTIVES

To provide participants with the knowledge and skills necessary for the effective design, development, operation, and maintenance of water harvesting facilities that can increase agricultural production in arid and semiarid areas.

CONTENT

Major topics to be included are the hydrology of water harvesting (including soil and topographic considerations), water harvesting technology, agronomic and horticultural aspects (crop selection, fruit and tree crops, annual crops, forage crops), design criteria, and the operation and maintenance of water harvesting facilities. Courses will include lectures, laboratory exercises, group discussions, practical experience, problem solving, and field trips.

OTHER INFORMATION

Conducted in English by the University of Arizona in Tucson and at nearby facilities.

COST

AID participants: Total \$3,871 includes \$2,173 training fee and \$1,698 maintenance allowance.
UN/FAO participants: Total \$3,586 includes \$1,888 training fee and \$1,698 maintenance allowance.
All other participants: Total \$3,871 includes \$2,173 training fee payable to USDA and \$1,698 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Tucson, Arizona, with a stopover in Washington, D.C., from July 5 to July 9.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and Spanish.

COORDINATOR

Richard Affleck

PM 110/022

SEED IMPROVEMENT
TC 130-3

DATES AND DURATION

9 weeks: June 7-August 6, 1982. Participants should arrive in Washington, D.C. on May 31 for course orientation and administrative procedures.

TARGET AUDIENCE

Agricultural ministry and other staff involved in the establishment, development, or promotion of improved seeds.

OBJECTIVES

Participants will: (1) develop knowledge and skills needed to establish or develop a seed improvement program in their home country or state; (2) learn to assume greater responsibility and leadership in promoting the use of good seeds by farmers; and (3) practice methods, procedures, and skills to teach and train others in seed improvement.

CONTENT

Course focuses on the role of seed technology in agricultural development. Participants will study the organization and implementation of a seed technology program including improved seed, its production and use. In addition, attention will be given to the various educational, research, and other organizations that produce seed and promote adaption of improved varieties. Emphasis will be on the role of the land-grant university system, and classroom, laboratory, and field tours will be used in that phase of the course. Participants will learn methods and problems of storing, handling and distributing improved seed through visits to commercial seed companies. They will also learn to develop education and extension programs in their home countries. The first 5 weeks are intensive instruction at the university and the last 4 weeks are devoted to field tours. Participants are encouraged to concentrate on the problems of their home countries.

OTHER INFORMATION

Conducted in English by Mississippi State University. Simultaneous interpretation is not available.

COST

AID participants: Total \$7,065 includes \$4,213 training fee and \$2,852 maintenance allowance.

UN/FAO participants: Total \$6,730 includes \$3,878 training fee and \$2,852 maintenance allowance.

All other participants: Total \$7,065 includes \$4,213 training fee payable to USDA and \$2,852 maintenance allowance payable directly to participant.

TRAVEL

Participants should be provided air tickets from their home countries to Columbus, Mississippi, returning home from Chicago, Illinois. A stopover should be scheduled in Washington, D.C., from May 31 to June 4.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

Larry Littlefield

PM 110/045

PLANT QUARANTINE
TC 130-5

DATES AND DURATION

9 weeks: July 19-September 17, 1982. Participants should arrive in Washington, D.C., on July 14 for course orientation and administrative procedures.

TARGET AUDIENCE

Technicians who work with government, advisory, and regulatory activities in plant and animal protection by regulating and monitoring imports and conducting quarantines. Candidates should have knowledge of entomology, plant pathology, and administrative and practical functions relating to plant quarantine.

OBJECTIVES

Participants will: (1) study the need for plant and animal inspection work on a national basis, and the fundamental concepts of plant pest control and enforcement; (2) learn port inspection techniques, regulations and procedures involving animal byproducts, fumigation and other treatment procedures; and (3) develop skills in identifying insects, plant diseases, nematodes, snails, and mites.

CONTENT

Course topics include identifying different pests and understanding the vehicles or hosts which transport them; studying and performing treatments at ports of entry including fumigation and other treatment; learning basic quarantine procedures, such as restrictive orders, regulations, and administration; and reviewing and discussing with U.S. inspectors and officials various ways to improve quarantine procedures in their home countries. The course is similar to the training required of U.S. entomologists before they become inspection officers. Visits will be made to a university and private company laboratories to become familiar with the latest detection and treatment methods.

OTHER INFORMATION

Conducted in English by USDA personnel from the Animal and Plant Health Inspection Service. Simultaneous interpretation is not available.

COST

AID participants: Total \$8,491 includes \$4,191 training fee and \$4,300 maintenance allowance.

UN/FAO participants: Total \$8,156 includes \$3,856 training fee and \$4,300 maintenance allowance.

All other participants: Total \$8,491 includes \$4,191 training fee payable to USDA and \$4,300 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

David Mateyka

PM 110/043

INTEGRATED PEST MANAGEMENT (IPM)
TC 130-8

DATES AND DURATION

6 weeks: June 14-July 23, 1982. Participants should arrive in Washington, D.C., on June 9 for course orientation and administrative procedures.

TARGET AUDIENCE

Technical staff involved with plant and animal protection programs or insect eradication efforts. This includes scientists researching new techniques or extension entomologists working on single or integrated pest control systems.

OBJECTIVES

Participants will: (1) review basic principles of agricultural production and various pest programs; (2) learn the concepts involved in an integrated pest management system and its component parts; and (3) learn how to conduct a pest management school.

CONTENT

Participants will learn concepts used in an IPM model for the United States and work individually with specialists in either basic research, extension, and/or IPM systems research. They will visit projects in several States that demonstrate parts of the model, and develop a model for their own country. Some of the components include identification of pests, tactics for control, and determination of economic threshold for each pest, and whether it is plant pathogen, nematode, insect, or weed. Interaction of all pests is measured within the context of different water, fertilization, weather, and environmental factors to determine what systems and strategies should be used. The course emphasizes how IPM can better unite basic research with an extension delivery system. The application of IPM principles to small farms will be stressed.

OTHER INFORMATION

Conducted in English by Purdue University. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,390 includes \$2,590 training fee and \$2,800 maintenance allowance.

UN/FAO participants: Total \$5,080 includes \$2,280 training fee and \$2,800 maintenance allowance.

All other participants: Total \$5,390 includes \$2,590 training fee payable to USDA and \$2,800 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Lafayette, Indiana, with a stopover in Washington, D.C., from July 5 to July 11.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

David Mateyka

PM 110/043

VEGETABLE CROP PRODUCTION AND MARKETING
TC 130-11

DATES AND DURATION

6 weeks: July 12-August 20, 1982. Participants should arrive in Washington, D.C., on July 5 for course orientation and administrative procedures.

TARGET AUDIENCE

Technical officers, extension specialists, community and rural development specialists, and others directly involved in the production and marketing of vegetable crops.

OBJECTIVES

This course will increase the participants' knowledge of different vegetable crops, seed improvement, production, handling practices, and other factors that influence produce quality. It will also review methods for distributing vegetable products from the producer to the consumer.

CONTENT

This course provides training in the principles of production, harvesting, and marketing of vegetable crops. Course topics include characteristics of the various types of vegetables and their adaptability to different climates; soil management; varietal screening and selection; cultural practices and conditions affecting vegetable quality; harvesting techniques; product standards and grading; and proper methods for the handling, storage, and shipping of different vegetable crops and decisionmaking regarding vegetable improvement. Course will cover farm family management practices relating to the production, home use, or marketing of vegetable crops.

OTHER INFORMATION

Course is conducted in English by Rutgers University. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$4,906 includes \$2,660 training fee and \$2,246 maintenance allowance
UN/FAO participants: Total \$4,596 includes \$2,350 training fee and \$2,246 maintenance allowance.

All other participants: Total \$4,906 includes \$2,660 training fee payable to USDA and \$2,246 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Newark, New Jersey, with a stopover in Washington, D.C., from July 5 to July 9.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English, French, and Spanish.

COORDINATOR

Lelia Craig

PM 110/047

GRAIN STORAGE AND MARKETING
TC 150-2

DATES AND DURATION

7 weeks: June 14-July 30, 1982. Participants should arrive in Washington, D.C., on June 7 for course orientation and administrative procedures.

TARGET AUDIENCE

Mid-level grain inspectors, grading specialists, marketing specialists, and managers of grain handling facilities and economists responsible for designing marketing systems.

OBJECTIVES

Participants will: (1) learn food and feed grain drying, storage, handling, transportation, and marketing; and (2) study fundamentals and techniques of grain storage and marketing.

CONTENT

This course includes fundamentals of grain storage, including grain kernel structure; moisture and its measurement; mold; chemical, physical and nutritive changes; handling--movement; methods and facilities for conditioning, aerating or cooling, drying; and equipment maintenance. It also covers storage methods and procedures; structures and structural maintenance; sanitation programs--inspection, methods, and equipment; insect identification and control; rodent and bird control; microbial control--molds/mycotoxins, and the economics of marketing management and operations. Laboratory sessions will be held along with field trips to grain companies and cooperatives, a board of trade, State grain inspection labs, the Federal Grain Inspection Service, a rice experiment station, USDA's Agricultural Marketing Service offices, and various port authorities. These field trips will offer practical observation of grain service facilities and marketing offices.

OTHER INFORMATION

Conducted in English by Kansas State University's Food & Feed Grain Institute, consultants, private companies, and the Federal Grain Inspection Service. Simultaneous interpretation is available in Spanish and French at additional cost.

COST

AID participants: Total \$4,803 includes \$2,358 training fee and \$2,445 maintenance allowance.

UN/FAO participants: Total \$4,493 includes \$2,048 training fee and \$2,445 maintenance allowance.

All other participants: Total \$4,803 includes \$2,358 training fee payable to USDA and \$2,445 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Manhattan, Kansas, with a stopover in Washington, D.C., from June 7 to June 11.

OVERSEAS AVAILABILITY

Not available for overseas presentation.

COORDINATOR

Robert Doan

PM 110/053

DETERMINATION AND PREVENTION OF POSTHARVEST FOOD LOSSES
TC 150-7

DATES AND DURATION

5 weeks: September 13-October 15, 1982. Participants should arrive in Washington, D.C., on September 6 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff responsible for the establishment, operation, and maintenance of food marketing systems or for the development of government policy in that area.

OBJECTIVES

Participants will improve their ability to: a) identify the causes and measure the extent of losses; b) improve the delivery system to reduce losses; c) educate others in post-harvest technology; and d) assist in their own country.

CONTENT

Topics covered include: definition of loss; assessment of loss; chemistry and biochemistry of food deterioration; biology and control of molds, insects, rodents, and birds in stored foods; simple grain drying and storage practices; storage and handling of roots, tubers, fruits, and vegetables; control of plant diseases; simple cooling systems; and the effect of climate. Emphasis is given to unprocessed or minimally processed foods and the storage and handling practices of developing countries. There will be a number of visits to facilities to see how foods are handled and stored in the United States. The course also includes a discussion of relevant economic, social, and political factors. Case studies will be used for discussion and analysis. Participants will be encouraged to present the situations in their own countries for discussion.

OTHER INFORMATION

Conducted in English by Cornell University. Simultaneous interpretation is available in Spanish and French at additional cost.

COST

AID participants: Total \$4,525 includes \$2,477 training fee and \$2,048 maintenance allowance.

UN/FAO participants: Total \$4,215 includes \$2,167 training fee and \$2,048 maintenance allowance.

All other participants: Total \$4,525 includes \$2,477 training fee payable to USDA and \$2,048 maintenance allowance payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Ithaca, New York, with a stopover in Washington, D.C., from September 6 to September 10.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations.

COORDINATOR

Larry Littlefield

PM 110/045

GENERAL INFORMATION ON RESEARCH OPPORTUNITIES

RESEARCH OPPORTUNITIES	Opportunities exist for participation in research in over 200 subject areas. These opportunities are available both in USDA's Agricultural Research Service laboratories as well as in other research facilities. This program allows scientists from around the world to update, increase, or refine their research skills while contributing to ongoing research. Participants will work alongside U.S. scientists on research projects in areas of mutual interest. Examples of research opportunities are listed in the following pages.
LOCATION	Research projects will be conducted in geographical areas of the United States appropriate for the nature of the research.
PROGRAM LENGTH	Acceptance into the program and the length of the research will be determined by an agreement between the applying scientist and the director of the research laboratory. Placements normally are for 6 to 12 months, depending on the research involved.
COORDINATION WITH TECHNICAL COURSES	Applicants may wish to coordinate their participation in laboratory research with attendance in a USDA technical course. This would allow them to make optimal use of the time they spend in the United States.
SPONSORSHIP	Organizations sponsoring participants include the following development organizations: the Agency for International Development, the Food and Agriculture Organization of the United Nations (UN/FAO), international development banks, home country governments, foundations, and private organizations.
COST	Costs vary according to the type of placement and the research involved. Cost information will be forwarded on request.
APPLICATION PROCEDURES	For additional information, or to nominate candidates, cable or write to: Dr. Robert I. Ayling Deputy Administrator for International Training Room 3529 South Building Office of International Cooperation and Development (OICD) United States Department of Agriculture Washington, D.C. 20250 Cable Address: AGRI/WASH 64334, Ayling OICD

RESEARCH OPPORTUNITIES FOR FOREIGN AGRICULTURALISTS

BIOLOGICAL CONTROL

Biological control of insect pests
Biological control of insects by parasites
Biological control of citrus insects
Biological control of grain and forage pests
Biocontrol of insects that attack livestock
Biological control of mosquitoes
Biological control of pests, insects, weeds, or plant pathogens
Biological control of soil-borne plant pathogens
Biocontrol of Trichogramma
Biological control of weeds using plant pathogens
Biocontrol of wheat diseases
Controlling insects in stored products using natural enemies

DISEASES

Biology, pathology, and chemistry of viroid pathogens
Cereal crop pathology
Citrus pathology
Classification of fungi on cotton, corn, and rice
Development of beans with resistance to root rot
Downy mildew of corn
Electron microscopy of healthy and diseased plants
Insect pathology (*Bacillus thuringiensis*)
Isolation and classification of fungi found on cotton, corn, and rice
Physiological mechanism of symptom expression in mycoplasma and spiroplasma diseases
Sorghum diseases
Soil-borne diseases
Soybean rust (containment)
Sugarcane genetics, pathology
Wheat diseases

ENGINEERING

Citrus postharvest technology
Citrus processing
Channel stabilization
Conservation tillage, soil erosion
Control of soil and water salinity
Cotton ginning research
Engineering for biomass harvesting
Grain drying
Grain handling and engineering
Irrigation and hydraulics; water management and harvesting; soil-plant-atmosphere systems
Mechanics of soil erosion
Nitrogen cycling in organic farming
Postharvest physiology and storage and transportation technology
Sediment transport
Soil erosion, water quality
Sugarcane harvesting
Surface water hydrology
Water quality of agricultural runoff
Water management or moisture conservation
Watershed sediment yield
Wind erosion and soil physics
Wind energy use on farms

FORAGE

Forage breeding or cytogenetics of grasses
Forage grass breeding
Forage grazing management
Forage plant physiology
Forage utilization

GENETICS

Cotton genetics
Genetics and improvement of woody landscape plants

RESEARCH OPPORTUNITIES (continued)

INSECTS

Biology and behavior of sterile weevils
Biology of insects that affect stored products
Characterization and genetics of bacteria and viruses pathogenic to insects
Control of citrus and vegetable insects
The effect of growth regulators on insects in stored products
Host plant resistance to insects
Insect attractant research
Insect behavior
Insect biochemistry, physiology, and toxicology
Insect control by natural product chemicals
Insect genetics and radiation biology
Insect pathology
Insect pheromone chemistry
Insect population modeling
Insect rearing, Trichogramma
Insect resistance in sweet potatoes
Integrated pest management of citrus insects
Isolating insect control agents from plant materials
Management and biology of cotton insects and cotton insect pathology
Medical entomology
Pesticide metabolism
Pesticide residue analysis
Pheromone chemistry
Pheromone research, sterile boll weevils
Quarantine of insects
Rangeland insect control
Reproductive physiology in insects
Soybean and cotton insect control, (Lygus heliothis)
Subtropical fruit insects
Synthetic and semidefined diets for testing biologically active compounds for use as insect control agents
Taxonomy of insects or mites

LIVESTOCK AND POULTRY

Animal diseases
Avian coccidiosis research
Avian reproduction physiology
Animal physiology
Calf scours
Embryo transfer in beef cattle
Immunology -- animal disease center
Laboratory animal medicine
Livestock nutrition
Livestock veterinary entomology
Metabolism of agricultural chemicals by animals
Mycotoxins in chicken feed
Pathobiology -- animal disease center
Poultry diseases
Poultry production
Reproductive endocrinology of swine
Respiratory diseases of poultry
Respiratory diseases of sheep
Ruminant nutrition (forage or protein metabolism)
Sanitizing swine and beef meat
Swine or beef cattle nutrition
Swine dysentery
Sarcocystis (coccidiosis) in swine
Swine or cattle reproduction
Swine nutrition
Taxonomy and systematics of helminthic parasites of domestic animals
Mastitis
Utilization of animal wastes
Viral diseases of livestock

PLANTS AND PLANT RELATED

Air pollution's effects on plants
Alfalfa breeding
Agricultural chemicals research: plants
Cereal products research
Chemical, biological, and physiochemical properties of peanut proteins
Citrus physiology, pathology, and entomology

RESEARCH OPPORTUNITIES (continued)

PLANTS AND PLANT RELATED (continued)

Cotton genetics
Crop simulation
Economic and medicinal plants
 including herbs
Effects of air quality on plants
Forage and range grass production
Free fatty acid formation in stored
 brown rice and whole rice
Hormone synthesis and action in
 plant tissue
Millet breeding
Mineral nutrition of plants
Movement of water in the root zone
Pathology, genetics, and breeding of
 improved wheat and barley germ
 plasm
Peanut pathology or genetics
Physiochemical characterization of
 oilseeds
Physiological and biochemical bases
 of seed vigor
Plant biochemistry
Plant breeding
Plant documentation
Plant genetics (host plant resistance
 to cotton insects)
Plant hormones
Plant-soil-water relationships
Plant pathology
Plant physiology
Plant stress in sorghum
Postharvest physiology and pathology
Propagation of fruit-producing
 plants by tissue culture
Rice breeding and culture
Rice production
Seed germination and dormancy as
 affected by light and temperature
Soil chemistry and physics
Soil fertility and management
Soil classification and mapping
Soil/plant analysis
Sowing, collecting data, evaluating,
 and harvesting experimental crops
Soybean, nitrogen fixation, photo-
 synthesis
Soybean pathology or entomology
Soybean reaction gene(s)
Sugarcane genetics and sugarcane
 disease epidemiology
Sugarcane production
Sunflower production

Tissue culture in rice breeding
Vegetable production
Wheat breeding and production
Wheat production research

WEED CONTROL

Biochemistry and physiology of
 herbicides
Herbicides' mode of action
Physiology of herbicides
Weed control in fruit crops
Weed control in rice
Weed control in vegetable crops
Weed control practices in soybeans
 and cotton
Weed science
Weed seed dormancy

MISCELLANEOUS

Anaplasmosis/babesiosis research
Characterization of storage con-
 stituents of oilseeds
Chromatographic analysis of plant
 tissue
Establishment, propagation, inspec-
 tion, maintenance, documentation,
 and distribution of germ plasm
Field releases of Trichogramma
Food microbiology research
Food proteins
Food technology
Grading of agricultural products
Grain quality needed for different
 final products
Grain structures and composition
Growth regulation of woody species
Heliothis ecology and control
Identification and biological control
 of plant parasitic nematodes
Immunology and cell culture methodo-
 logy
Interactions of metal ions and amino
 acids with phytic acid
International communications and
 computerization of germ plasm data
Natural product chemistry
Quality control for laboratory
 services

1982 COURSES

	JUNE				JULY				AUGUST				SEPTEMBER				OCTOBER				NOVEMBER					
	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
TC 120-8 (June 14 - July 23) Development of Watershed Lands	←-----→				←-----→																					
TC 140-8 (June 14 - July 23) Small Farmer Credit Policy	←-----→				←-----→																					
TC 130-10 (June 14 - July 23) Small Ruminant Production	←-----→				←-----→																					
TC 110-16 (June 14 - July 23) Vocational Ag. Education	←-----→				←-----→																					
TC 150-2 (June 14 - July 30) Grain Storage & Marketing	←-----→				←-----→																					
TC 120-1 (June 14 - Aug. 6) Irrigation Problems & Practices	←-----→				←-----→				←-----→																	
TC 170-7 (July 12 - Aug. 6) Management of Tropical Forests					←-----→				←-----→																	
TC 120-25 (July 12 - Aug. 6) Water Harvesting for Ag. Production					←-----→				←-----→																	
TC 110-3 (July 12 - Aug. 20) Ag. Communication & Media Strategies					←-----→				←-----→																	
TC 130-11 (July 12 - Aug. 20) Vegetable Crop Production					←-----→				←-----→																	
TC 110-18 (July 19 - Aug. 6) Communications Planning & Strategy					←-----→				←-----→																	
TC 130-5 (July 19 - Sept. 17) Plant Quarantine					←-----→				←-----→				←-----→													
TC 140-16 (July 26 - Sept. 3) Ag. Project Implementation					←-----→				←-----→				←-----→													
TC 110-15 (July 26 - Sept. 17) Ag. Trainer Development					←-----→				←-----→				←-----→													
TC 140-30 Keys to Agricultural Development Section III (Aug. 2 - Aug. 13) Sections IV & V (Aug. 9 - Aug. 20) Section VI (Aug. 16 - Aug. 27)					←-----→				←-----→				←-----→													
TC 110-14 (Aug. 23 - Oct. 1) Application & Diffusion									←-----→				←-----→													
TC 140-2 (Sept. 7 - Nov. 12) Ag. Project Planning & Analysis Section II													←-----→				←-----→									
TC 110-5 (Sept. 7 - Nov. 12) Agricultural Extension Section II													←-----→				←-----→									
TC 150-7 (Sept. 13 - Oct. 15) Postharvest Food Losses													←-----→													
TC 140-1 (Sept. 20 - Oct. 15) Ag. Policy Seminar													←-----→													
TC 140-11 (Sept. 20 - Oct. 29) Ag. Cooperative Organizations													←-----→													
TC 140-29 (Oct. 4 - Nov. 26) Integrated Rural Development													←-----→				←-----→									
TC 140-22 (Oct. 18 - Nov. 19) Economic Forecasting																	←-----→									
TC 110-19 (Dec. 27 - Jan. 7) Communication Skills for Development Professionals																										