

SAHEL MASTERS TRAINING PROGRAM IN
AGRICULTURAL ECONOMICS

(African Development Program, AID/afr-C-1267)

Annual Report For 1980

by

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1980 ANNUAL REPORT ON SAHEL MASTER'S TRAINING PROGRAM

AID/afr-C-1267

Program Overview

In 1980 five students graduated from the Sahel Master's Training Program. One entered a Ph.D. program (having done field research in Upper Volta after completing M.S. courses). The other students assumed professional responsibilities in their home countries. Seven new students entered the M.S. program during 1980. In addition, two students from the Gambia began preparatory academic work and four students entered English language training in order to begin academic work during 1981. Table I summarizes the status of the program at the end of calendar year 1980. Appendix A provides greater detail.

Table I. STATUS OF M.S. TRAINING ENROLLMENTS
AS OF DECEMBER 1980, SUMMARY
(Number of Students by Country)

Country	Completed M.S. Program	Enrolled M.S. Program	Preparatory Academic Program*	English Language Training
Cape Verde		1		
Gambia			2	
Mali	1	3		1
Mauritania		2	1	1
Niger		1	1	
Senegal	3	3		2
Upper Volta	1	1		
Chad ^a				
Total	5	11	4	4

^aOne candidate from Chad, accepted into the program, has been "called forward" by the USDA/OICD but has not yet arrived.

*Preparatory academic work involves undergraduate studies leading to either a B.S. degree or a one-year course of undergraduate study for certification of B.S. equivalency as the basis for admission to the M.S. program in Agricultural Economics.

It should be noted that at the request of USAID/Niamey the Sahel Master's Training Program Staff also helped to place two Nigerians in the M.S. program in Resource Development (specialization in extension) at Michigan State University.

Academic Program Progress

One Senegalese who had returned to Senegal in 1979 and two who returned in 1980 completed all requirements for the degree in 1980 and were awarded their diplomas. In addition, one Malian and one Voltaic completed their M.S. programs. Three of the research papers, each prepared for the degrees, have been published as African Rural Economy Program Working Papers. All the papers reflect a good grasp of agricultural economics and its application to Sahelian problems. A list of the 1980 graduates and the titles of their papers are included in Appendix B.

The other three students who were enrolled in the M.S. program at the beginning of 1980 are now completing their research papers and will return home in early 1981. All three are doing sufficiently well for us to be confident they will successfully complete their programs as scheduled.

In addition to those students enrolled in the M.S. program at the beginning of 1980, four students were enrolled in preparatory courses leading either to a B.S. degree or certification of B.S. equivalency so as to permit admission to the Graduate School. One of these has since been admitted into the M.S. program and is doing well. Another, who did not do well, has been admitted to an M.S. program in the Department of Education for studies in agricultural extension beginning in Winter Term, 1981. The two remaining students are continuing satisfactory work toward their B.S. degrees prior to being admitted to the M.S. program. Both of these students have had some academic problems but these reflect special situations rather than difficulty in handling the subject matter. We expect both to do sufficiently well in their undergraduate programs to gain admission to the M.S. program.

In 1980 eight new students began course work under the program. Three had been taking English at MSU during 1979. One of the eight is pursuing a B.S. equivalency certification in order to qualify for admission to the Graduate School. The other seven were admitted directly into the M.S. program after completion of English language training. Two of the eight, the one student pursuing certification and another one admitted directly into the M.S. program, are not meeting minimum academic standards. Furthermore, they have shown little improvement over time. Unless their Winter 1981 academic performances improve substantially, they will be asked to leave the program at the end of that term. If this occurs, it would mean that three of the first twenty students brought to MSU under the program were unable to achieve minimum academic standards for the M.S. degree.

By and large our initial perception of the possibilities and problems associated with the program were quite realistic. This perception was included in the original proposal and in discussions with AID officials at that time. For example, about half of the students do well enough that the likelihood of their getting a degree is never in doubt. Most of the others are borderline cases who require considerable personal attention and a focusing of program content in order to obtain the minimum grade point average required for graduation. Within this group many repeat a course or two in order to improve grades; their academic performance usually improves during the course of their programs. For these students especially, writing the research paper contributes in a major way to their sense of self-confidence as well as to their analytical skills.

Our experience has improved our program guidance capabilities. Almost to a person, the students underestimate the significance of the language problem. In many courses taken during their first one or two terms here, students lose a grade point (from A to B or B to C) on the final exam. They were unable to read carefully or write quickly enough to meet the time restrictions for completing exams. This is an especially serious problem for those students who arrive out of sequence and who, as a result, cannot take

the special transition course, "Terms, Concepts and Fields of Agricultural Economics" (Appendix C) during their first term on campus.

There is also a certain tendency for students to shake off low grades as aberrant, even in cases where they are not. As a result some of the students are reluctant to take lower level courses that would give them a better foundation for the higher level courses. Until we had a good sense of how realistically such students view their problems and capabilities, we tended to give them the benefit of the doubt; consequently, some found it necessary to defer completion of a course or earned a low grade and repeated the course. Now we are more forceful in insisting that they begin at levels more in line with our perception of where they are. This should help to reduce the number of repeated courses and give students a better foundation without lengthening the program.

Recruiting

During 1980 we maintained regular contacts with the USAID Training Offices and the USDA Office of International Training in order to identify and screen qualified candidates for the M.S. program.

Candidate selection assistance to the Sahel Missions was done primarily through correspondence. One trip by James Bingen in June 1980 provided an opportunity to interview several proposed candidates as well as discuss the M.S. program at MSU with government officials. As a result of this trip, two candidates were accepted into the program.

Most of the recruiting work in 1980 involved frequent contacts with the USDA International Training Program Specialists. When the PIO/PS submitted by the Sahel USAID specify M.S. training in Agricultural economics, the Sahel Master's Training Program contact provides a unique means to expedite the initiation of training programs. This represents a considerable savings in time for the candidates and for their governments, since this program service helps minimize the delays between candidate selection and the commencement of the training program.

Follow-up of Returned Graduates

In 1980 we began following up graduates returning to their countries as is provided for in the contract. Mr. Ibrahima Sene, currently the Regional Inspector of Agriculture in Kaolack, Senegal, requested assistance in setting up a field survey for determining the impact of SODEVA on agricultural production in Kaolack Region, the most important region in the peanut basin of Senegal. SODEVA is a regional extension organization charged with diffusing agricultural technology and extension advice throughout the peanut basin. Tom Zalla spent four days in Kaolack with Mr. Sene discussing, among other things, SODEVA's current sampling methodology and how it might be improved. This aspect of the program will take on increasing importance in 1981 as more of our graduates take up permanent operational assignments in their home countries.

Lester Manderscheid and James Bingen were in Senegal in December 1980 in connection with another project. While there they visited each of the three Senegalese graduates, Niane, Rigoulot and Sene. The graduates reported that their M.S. education was of great help in their current jobs. They expressed concern over the lack of recognition of the U.S. degree in the civil service system. This issue was then raised with Senegalese officials and the USAID staff since it has implications for the training component of other projects.

Toward the Future

All of the challenges or issues for the participant training which were raised in our 1979 Annual Report remain valid and outstanding:

- the use of qualified students as consultants
- the establishment of the Sahelian capacity to offer M.S. programs in Agricultural Economics
- AID support for higher education in the Sahel
- management training for long-term participants.

As the Agency for International Development finances degree training for an increasing number of students from francophone Africa, the degree equivalency problem becomes more important to resolve. Most Sahelian governments do not have the means to evaluate M.S. degrees from U.S. universities or to equate U.S. academic work at the M.S. level with the appropriate civil service ranking. As a result many students do not receive 'full' credit for their M.S. academic work and are often unnecessarily disadvantaged in comparison with their colleagues who have earned the 'Doctorat de 3^{eme} Cycle.

Financial Report

Attached is a financial report as of September 30, 1980 (Appendix D).

Appendix A
STATUS OF U.S. TRAINING ENROLLMENTS AS OF DECEMBER, 1980

Country	Name	Previous Institutional Affiliation	Enrolled MS Program	Program Status as of December, 1980			
				Preparatory Academic Work	English Language Training	Master's Paper Topic	
Cape Verde	Herminaldo Sousa-Brito	Northeastern University	X				
Gambia	Gorgi Gaye	Ministry of Agriculture		X			
	Al Haji Alioune Njai	Ministry of Agriculture		X			
Mali	Bafotigui Sako	Ministry of Planning	X			The Operation of Regional & Area Dev. Projects Small Ruminants in Mali	
	Mariam Toure	National School of Administration	X				
	Idrissa Traore	Ministry of Commerce	X				
Mauritania	Moctar Sidi Traore	Ministry of Rural Dev.					
	Demba Diop	Ministry of Agriculture				X	
	Oumar Fall	Ministry of Interior				X	
	Amadou Mangane	Ministry of Rural Works	X				
	El Hadji Amadou Wone	BMDC, Dev. Bank of Mauritania	X				
Niger	Assoumane Baoua	Ministry of Rural Development				X	
	Sanda Maina	Ministry of Rural Development	X				
Senegal	Mamadou D. Diallo	SAED	X			Analysis of Irrigated Rice Projects in the Senegal River Valley	
	Aboubacar Kourouma	SODIFITEX	X				
	Makhona Mbaye	University of Dakar					X
	Lamine Niang	ISRA	X				
Upper Volta	Alassane Sow	University of Dakar				X	
	Yewaya Zinaba	University of Ouagadougou	X			Migration in Upper Volta	

Appendix B
GRADUATES OF THE MSU SAHEL MASTERS TRAINING PROGRAM, AS OF DECEMBER 1980

Name	Country	Previous Institutional Affiliation	Date of Completion of MS Degree	Source of Financial Aid	MS Research Topic
Dramane Coulibaly	Mali	Ministry of Rural Development	March 1980	AID/Sahel Training	Analysis of Rice Supply and Demand in the Ivory Coast
Amadou Niane	Senegal	Ministry of Planning	January 1980	AID/Sahel Training	The Supply and Demand of Millet and Sorghum in Senegal
Ismael Ouedraogo	Upper Volta	Ministry of Environment & Tourism	December 1980	AID/Sahel Training	A Preliminary Analysis of Agricultural Marketing Characteristics of Farmers in the Eastern Region of Upper Volta
Jean-Pierre Rigoulot	Senegal	Ministry of Rural Development	January 1980	AID/Sahel Training	An Analysis of Constraints on Expanding Rice Output in the Casamance Region of Senegal
Ibrahima Sene	Senegal	Ministry of Rural Development	June 1980	AID/Sahel Training	Farmers' Behavior Towards New Technology - The Senegalese Case

Tom Zalla
Spring 1981

Class Hours: 3-3:50 MTWF
Classroom: 105 SLS
Office Hours: 4-5:00 MTWF

SYLLABUS FOR FSM 480
(four credits)

Terms, Concepts, and Fields of Agricultural Economics

I. Course Objectives

- A. This course is aimed primarily at foreign students not familiar with Agricultural Economics as a discipline nor the American system of higher education. Its specific objectives are:
1. To introduce students to several areas of Agricultural Economics, the technical vocabulary, and main concepts of each
 2. To improve students' ability to express themselves and their ideas clearly and concisely both orally and in written papers
 3. To familiarize students with examination procedures and techniques commonly used in American higher education

II. Course Organization

- A. The course is divided into five segments of roughly eight classes each. During each of the segments, there will be a take-home problem relating to the material covered during that segment. The problem will be handed out on the first class day relating to each segment. Each student will solve the problem and write a policy paper discussing the nature of his findings and their implication for relevant agricultural policies. During the next to last class relating to the segment one or two students will be selected at random to make a 15 minute presentation of their conclusions to the class and lead a discussion on its policy implications.
- B. Students are encouraged to work in teams on the take-home assignments in order to improve their understanding of how to approach the problem being analyzed. Each, however, must hand in his own paper and draw his own policy conclusions. Papers should be 800 words, excluding tables, and should either be typed or handwritten clearly, using every second line of the paper. The initial draft of these papers will be due on the date of the scheduled presentation.
- C. During the week following the presentation of the first four papers, students will meet with a graduate assistant who will assist them with editorial and grammatical revision of their manuscript. A final typed draft of the revised paper will be due on the Friday following the week of the initial presentation. Students will have no editorial assistance with their fifth paper. The fifth paper will be due on June 3 and may be handwritten provided it is clearly written and uses every second line.

- D. On the last class day of each segment there will be a 50 minute exam covering the material presented during that segment as well as that brought out in the student presentations.

III. Class Calendar

The schedule of class presentations and exams is as follows:

April 8	Production economics class paper due
April 10	Production economics exam
April 22	Farm management class paper due
April 24	Farm management exam
May 6	Agricultural finance class paper due
May 8	Agricultural finance exam
May 20	Agricultural marketing class paper due
May 22	Agricultural marketing exam
June 3	Project appraisal class paper due
June 5	Project appraisal exam
June 11	Final Exam 12:45-2:45 pm, 105 SLS.

IV. Grading and Exams

- A. Final grades for the course will be computed as follows:

Class papers (5)	25%
Class presentations	20%
Bi-weekly exams (3)	30%
Final exam	25%

- B. All class papers not submitted on time will be graded down one grade point for each class day they are late. In addition class papers less than 800 words in length will be graded down one grade point. The two lowest weekly exam grades will be dropped before calculating grades for this component. No deferred grades will be given for the course.
- C. Exams will cover all material presented and discussed in class as well as the required readings. The bi-weekly exams will emphasize, but not be restricted to, material covered during that segment. The final exam will cover the entire term.

V. Texts

Required:

Harold Halcrow: Economics of Agriculture. McGraw-Hill; New York, 1980

Maxwell Brown: "Farm Budgets, From Farm Income Analysis to Agricultural Project Analysis," The Johns Hopkins University Press, Baltimore, 1980

John J. Dillon and J. Brian Hardaker: Farm Management Research for Small Farmer Development. FAO, Rome, 1980 (distributed in class).

Recommended:

Leonard F. Miller: Agricultural Credit and Finance in Africa. The Rockefeller Foundation, New York, 1977 (distributed in class)

IBRD: "Appraisal of an Agricultural Development Project: The Gambia;" IBRD, 1972, Mimeo (distributed in class)

John B. Penson, Jr., and David A. Lins: Agricultural Finance. Prentice-Hall, Inc., Englewood Cliffs, 1980.

VI. Course Outline

A. Introduction

1. Required readings

Halcrow, Chapters 1-3

2. Topics

- a. the scope of agricultural economics
- b. opportunity cost
- c. economic growth

B. Production Economics

1. Required Readings

Halcrow, Chapters 4, 5, and 6, pp. 150-158

2. Optional Readings

Warren Vincent ed. Economics and Management in Agriculture. Englewood Cliffs; Prentice-Hall, Inc.; 1962. Chapters 3 & 4

3. Topics

- a. law of diminishing returns
- b. equal product curves or isoquants
- c. production functions
- d. stages of production
- e. agricultural production decisions
- f. comparative advantage
- g. derivation of cost functions and optional level of output
- h. value product concepts
- i. two variable input-output functions
- j. the equi-marginal principle
- k. firm, partial equilibrium and aggregate supply functions
- l. supply response of food crops under risk and uncertainty among African peasants

C. Farm Management

1. Required readings:

Brown, Chapters 1-3

Dillon and Hardaker, Chapters 3-6

2. Optional Readings:

Jean Pierre Rigoulot, "An Analysis of Constraints on Expanding Rice Output in the Casamance Region of Senegal," MSU Department of Agricultural Economics, M.Sc. Research Paper, 1979.

Ibrahima Sene, "Farmers' Behavior Towards New Technology: The Senegalese Case," MSU Department of Agricultural Economics, M.Sc. Research Paper, 1980.

3. Topics

- a. scope, nature and objectives
- b. managerial functions
- c. risk and uncertainty
- d. farm income concepts
- e. simple data analysis
 - (1) tabular analysis
 - (2) measures of performance
 - (3) comparative analysis
- f. whole farm planning
- g. partial budget analysis
- h. input-output budget analysis
- i. production function estimation and analysis

D. Agricultural Finance

1. Required readings:

Miller, entire book

Brown, Chapter 4

2. Optional reading:

Penson and Lins, Chapters 2, 3 and Chapter 6, pp. 130-138

3. Topics

- a. role of credit and financial intermediaries
- b. interest rates and interest rate policy
- c. credit transaction costs and borrowing costs
- d. records and analytical tools for financial management
- e. analysis of farm financial statements
- f. discounting and capital budgeting
- g. government financial institutions - problems encountered
- h. approaches to small farmers' finance problems

E. Agricultural Marketing

1. Required reading:

Halcrow, Chapter 6, pp. 158-182; Chapter 7

H.J. Mittendorf, "Methods of Assessing the Demand of Internal and External Markets," in Problems and Approaches in Planning Agricultural Development, Proceedings of Joint Seminar; Addis Ababa, 1976. HD.2118.1968. J8., pp. 145-153.

CILSS and Club du Sahel, Marketing, Price Policy and Storage of Food Grains in the Sahel, Vol. I, CRED: Ann Arbor, August 1977, pp. 9-20.

2. Optional readings:

Ismael Ouedraogo, "The Economics, Management, and Policy Issues of Storage and Reserves in the Food Marketing System: The Developing Countries Context," mimeo, 1977. Folder 480-1.

Amadou Niane, "Supply and Demand of Millet and Sorghum in Senegal," MSU Department of Agricultural Economics, M.Sc. Research Paper, 1979, pp. 11-39.

Dramane Coulibaly, "An Analysis of Rice Supply and Demand in the Ivory Coast," MSU Department of Agricultural Economics, M.Sc. Research Paper, 1979.

3. Topics

- a. marketing activities and functions
- b. demand and derived demand
- c. determinants of demand for resources
- d. individual, firm, partial equilibrium and aggregate demand functions

- e. elasticity of demand and demand projections
- f. elasticity of supply and supply projections
- g. the structure-conduct-performance concept
- h. characteristics of agricultural markets in Sahelian West Africa
- i. important policy issues relating to agricultural markets in the Sahel

F. Agricultural Project Appraisal

1. Required readings:

P.B. Diebold, "Project Evaluation," in Problems and Approaches in Planning Agricultural Development, Proceedings of a Joint Seminar organized by The German Foundation for Developing Countries, 16 October - 7 November 1967 in Addis Ababa, pp. 155-160.

Brown, Chapters 4, 7 and 8

IBRD, "Appraisal of an Agricultural Development Project: The Gambia," IBRD, 1972, mimeo, pp. 1-30. (distributed in class).

2. Optional readings:

Brown, Chapter 5

3. Topics

- a. critical role of project design and the macro-planning context
- b. time value of money and discounted measures of project worth - a review
- c. with and without project measures of cost and returns
- d. valuing inputs and outputs and computation of shadow prices.
- e. financial and economic analyses
- f. presentation of Gambia irrigated rice project for class analysis

Appendix D
BUDGET AND EXPENDITURE REPORT

African Development Program: Masters Training Program in Agricultural Economics for Students from the Sahel
AID/afr-C-1267

<u>Line Items</u>	<u>Obligated Funding</u>							<u>Total 10/1/76- 9/30/83</u>
	<u>10/1/76- 9/30/77</u>	<u>10/1/77- 9/30/78</u>	<u>10/1/78- 9/30/79</u>	<u>10/1/79- 9/30/80</u>	<u>10/1/80- 9/30/81</u>	<u>10/1/81- 9/30/82</u>	<u>10/1/82- 9/30/83</u>	
Salaries	\$ 3,290	\$ 9,600	\$ 20,370	\$ 27,650	\$ 29,310	\$ 31,060	\$ 20,070	\$141,350
Overhead	2,073	6,048	12,833	17,420	18,465	19,568	12,644	89,051
Fringe Benefits	756	1,268	2,469	3,882	4,116	4,098	2,925	19,514
Travel/Transportation	3,070	3,250	3,450	7,300	7,730	4,100	4,350	33,250
Other Direct Costs	235	1,270	1,350	1,430	1,510	1,610	1,700	9,105
Total	\$ 9,424	\$ 21,436	\$ 40,472	\$ 57,682	\$ 61,131	\$ 60,436	\$ 41,689	\$292,270

	<u>Total Obligated Funding 10/1/76- 9/30/83</u>	<u>Expenditures</u>				<u>Total Expenditures 10/1/76- 9/30/80</u>	<u>Remaining Obligated Funding 10/1/80- 9/30/83</u>
		<u>10/1/76- 9/30/77</u>	<u>10/1/77- 9/30/78</u>	<u>10/1/78- 9/30/79</u>	<u>10/1/79- 9/30/80</u>		
Salaries	\$141,350	\$ 6,081	\$ 5,362	\$ 18,550	\$ 37,474	\$ 67,467	\$ 73,883
Overhead	89,051	4,035	3,141	11,132	17,487	35,795	53,256
Fringe Benefits	19,514	964	762	2,897	4,586	9,209	10,305
Travel/Transportation	33,250	3,950	3,468	4,005	1,441	12,864	20,386
Other Direct Costs	9,105	292	1,361	1,838	4,560	8,051	1,054
Total	\$292,270	\$ 15,322	\$ 14,094	\$ 38,422	\$ 65,548	\$133,386	\$158,884

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