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# SAHEL MASTERS TRAINING PROGRAM IN AGRICULTURAL ECONOMICS

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

Annual Report For 1979

by

Lester Manderscheid

Director

James Bingen

Recruiter

Tom Zalla

Advisor

Department of Agricultural Economics
Michigan State University
East Lansing, Michigan

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## Program Overview

In 1979 the first student to complete Sahel Masters Training Program coursework returned to Senegal to assume the position of Director for Agriculture in the Kaolock region of Senegal. Five new students, two from Senegal, two from Mauritania and one from Upper Volta started English language training in the Fall 1979. During the 1979/80 academic year, we expect these students, plus two students from the Gambia to join the program. One student from Mali will also continue English language training at MSU during the Spring Term 1980. Table I summarizes status of the program at the end of calendar year 1979.

## Academic Program

All students admitted to the M.S. program in Agricultural Economics follow a well-defined course of study which includes a major field of at least 24 credits and a minor field of 12-15 course credits. A minimum of 48 credits with a grade point average of at least 3.0 is required for graduation. (This program therefore permits 9-12 credits of electives.) All Sahelian students must meet three specific requirements:

1. They must take Agricultural Development as a minor field of study, plus,
2. Take courses in
   - Terms, Concepts and Fields of Agricultural Economics
   - Agriculture in Economic Development
   - Agricultural Policy in Sub-Saharan Africa
   - Plus two courses from

     Rural Development Administration

     Data Collection in Developing Countries

     Development Planning and Agricultural Sector Analysis.

TABLE I: STATUS OF M.S. TRAINING ENROLLMENTS AS OF DEC. 31, 1979

(Number of Students by Country)

| Country | Enrolled M.S. Program | Preparatory Academic Work* | English Language Training |
|---|---|---|---|
| Gambia | | 1 | |
| Mali | 3 | | |
| Mauritania | | 1 | |
| Niger | | 2 | |
| Senegal | 4 | | 2 |
| Upper Volta | 1 | | 1 |
| Chad | | | |
| Cape Verde | | | |

*Preparatory academic work involves undergraduate studies leading to either a B.S. degee 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.

One student from Niger, who is in preparatory academic work, is qualified for M.S. level work, received B.S. degree certification and was admissable for graduate studies. Unfortunately, the Ministry of Rural Development in Niger did not concur with this program. Consequently, the student must now complete a longer B.S. program to comply with the long-term training policy of his government.

One other student enrolled in preparatory academic work has not been doing well and unless his performance improves, he may not have the necessary grade point average for admission to graduate studies at MSU.

All of the students are "on schedule". Most students complete their M.S. academic course work in 18 months, and some will be able to finish in 15 months. (Following three to six months of English language training) some students have experienced academic difficulties during their first term of studies at MSU. These difficulties arise principally from the weak academic backgrounds of the students and/or their unfamiliarity with U.S. university education. The students usually pass through this transition period within one academic quarter and all the current M.S.-level students are doing good academic work.

One Malian student is taking maternity leave for one academic quarter. A Voltaic student has completed his M.S. coursework and is doing field research in marketing with the MSU Team in Fada N'Gourma, Upper Volta. One Senegalese student has completed all of his coursework and returned to Senegal where he is finalizing his Master's paper.

3. And finally, students must prepare and defend a research paper on a topic of direct relevance to agricultural development in the Sahel.

Clearly, the program is defined so that students have a firm grounding in economic theory and statistics, yet flexible enough to permit specialization in areas such as extension, marketing, agricultural credit, public policy, program administration, and project analysis.

Special note should be made of two courses which are designed specifically to help ensure that the training program is suited to the positions which the students will fill upon their return home. A special overview course entitled "Terms, Concepts and Fields of Agricultural Economics" is offered each year. In addition to providing a broad review of the scope and methods of agricultural economics, the course has been an extremely successful way for students to perfect their skills in taking examinations and writing papers. The course has been an excellent introduction to the study of agricultural economics for first year foreign students, as well as to the "American system of university education." A new course, "Agricultural Policy in Sub-Saharan Africa" was offered for the first time during the 1979/80 academic year. Students are exposed to discussions of particular problems and concerns through a series of seminars. In order to encourage a policy-oriented analysis of problems of agricultural development in Sub-Saharan Africa, students are required to prepare a draft action memorandum to their Minister of Rural Development which recommends a specific course of action in response to the problem under discussion. (Attached is the course outline and list of speakers).

In addition to a defined study program and intensive advising, special tutors are available for English or for specific courses during the student's first year of studies. Budgeting considerations limit tutorial assistance to the first year of a student's program. To date, our experience suggests that special English tutoring

makes only a marginal contribution to the basic skills learned in the regular English language program. Course tutors, on the other hand, provide an excellent opportunity to tailor discussions of agricultural economics to the interests and backgrounds of the individual students.

English Language Training

The program arrangements for English Language Training are made principally by the USDA International Training Office. Depending upon the arrival time of students, the availability of lodging and courses, most students have started their language programs at either ALIGU (Georgetown University) or at the Economics Institute at Boulder. In cases where students are making exceptional progress they transfer after three months into the MSU English Language Center. This permits them to enroll in some academic work, facilitates their entry into university life and reduces the length of their training program.

At the beginning of the 1979/80 academic year, neither Howard University nor Virginia State University had established English language training programs. Pursuant to our contract, we have encouraged the USDA Office of International Training to send Ag. Econ. Masters Training students to these institutions for language training when programs are established.

Our experience with language training suggests that most students find six months of English sufficient to begin academic studies. To date, only one of the 12 students entering either our graduate or undergraduate program has required more than 6 months of full-time English. More than one-half of the students take at least one lower-level statistics of math course following three months of English language training.

Despite the expected need for six months of English training, students are anxious to begin a full schedule of regular course work before they have

sufficient English. We take a very measured approach to those requests, based largely on our experience that successful progress and performance during language training is a good indication of future academic performance. Furthermore, our experience indicates that good progress in English is not sufficient if the level of proficiency is low.

Admissions and Recruiting

In order to be more responsive to the relatively limited availability of qualified M.S. candidates in the CILSS Member States, we sought and gained University approval for a unique B.S. certification program. This special program permits students (with three years of university-level academic work) to receive formal certification of a B.S. equivalency following the successful completion of a specified, one-year program of supplementary coursework in mathematics, statistics, introductory economics and agricultural economics. On the basis of the B.S. equivalency certification, Sahelian students can then be admitted to graduate school, even though they do not actually hold a B.S. degree or academic equivalent.

We have also successfully sought University approval for combined undergraduate and graduate programs which lead to the M.S. degree, after successful completion of all the requirements for a B.S. degree. On the average, the combined B.S./M.S. program takes 4-4½ years, including 3 to 6 months of English Language Training. This program includes approximately two and one-half years of undergraduate work, followed by 15 to 18 months of M.S.-level work in agricultural economics. This combined program has been an excellent way for us to provide a training opportunity for individuals from those Sahelian countries where there are few, if any candidates for our program with university level degrees.

Under the Sahel Masters Training contract we provide assistance to AID field offices and host governments in the identification and screening of qualified Sahel candidates for the training program. This occurs through extensive personal contact and correspondence with USAID Mission Training Officers, as well as with the International Training Program Specialists for Agriculture in the USDA Office of International Training.

Because of the continuing personnel changes, yearly personal contact with USAID Mission officers and Sahelian government officials is still necessary in order to explain the program and recruit candidates. Nevertheless, as more Sahelian officials learn of the program admission requirements and the need to work through the local USAID Mission, more preliminary identification of candidates is being done by the Sahelian governments in collaboration with the USAID Training Officers. As a result, more of our assistance in screening can be done through correspondence. In addition, as we gain more familiarity with the wide variety of different educational and training programs available to Sahelians, we can more accurately advise USAID on a candidate's ability to complete successfully the M.S. program.

One recruiting trip by James Bingen during June-July 1979, helped to renew contacts in the USAID Missions and with host government officials as well as clarify several points about the Masters Program. Specifically, it was necessary:

-- to explain that the Sahel Masters Training Program was not a "special" program designed only for Sahelians, but instead involved a standard MSU M.S. program in Agricultural Economics with specific course requirements for Sahelian students;

-- to explain that Michigan State University does not have scholarships for M.S. training in Agricultural Economics and that all (or most

arrangements for financing students must be negotiated with the local USAID Mission;

-- to explain that the Masters Degree in Agricultural Economics was equivalent to the "Doctorat du Troisième Cycle" and not to the "Maîtrise" (which is also the literal translation of "Masters"). This argument was made on the grounds that the MSU Masters Degree in Agricultural Economics was a two-year academic program following the "Licence" or "Maîtrise" degrees and consequently gave a student the equivalent academic years for a "Doctorat 3ème Cycle."

Moreover, since most Missions were preparing the training program budget in response to the availability of funds under Sahel Manpower Development Program (SMDP) we were able to gain a better appreciation of the different nature and priorities of each Mission's long-term participant training program. For example, some Missions prefer to use SMDP funds to train in areas which could not otherwise be financed from their production projects. Other Missions rely on SMDP for training in areas like Agricultural Economics regardless of specific training plans included in the various crop and livestock production projects.

Following this trip we have been in regular contact with the Sahel USAID Missions in order to facilitate the arrival of students for the 1979/80 academic year as well as to begin screening candidates for the 1980/81 program.

Students Completing Their Studies

Five students, three from Senegal, one from Upper Volta and one from Mali, will complete their coursework for the M.S. degree during 1980. In addition one student returned to Senegal in June 1979 after completing his oral exam, but prior to finishing revisions of his research paper. This student submitted an acceptable final draft of his paper by the end of 1979, but the degree will not be

awarded until the paper is typed and formally submitted to the department. Two of the other students from Senegal returned home in January, 1980, with all requirements for their degrees completed. The third is expected to complete all degree requirements by the end of summer term. The student from Upper Volta is working with the MSU/ORD Project in Fada N'Gourma, Upper Volta, to gather data for his research paper on agricultural marketing. The student from Mali will complete all M.S. degree requirements and return home about March, 1980.

The research paper is proving to be an extremely important part of each student's training. Initially, the students regarded the papers as no more than three credit term papers. However, the students quickly learned that the papers required a real effort to synthesize their training in close collaboration with their major professor. As a result, the quality of first drafts is improving. Moreover, the paper is proving to be a major source for growth in their self-confidence and in their professional capabilities.

Consistent with the contract objective to provide post-graduate field support for students who have returned to positions in the Sahel, we are beginning a follow-up program with each graduate. In 1980 for example, we will be assisting the first graduate to design a study for evaluating the effectiveness of the regional extension authority which he has responsibility for supervising. Upon request, we hope the follow-up services can help all graduates in their professional careers.

Visitors

At separate times during 1979, Mr. Seydi Boubou Camara, National Director for the Civil Service, Mauritania, and Mr. Norman Rifkin, SFWA/SDPRO, visited campus to review the Masters program, talk with students and discuss long-term participant training with MSU faculty and administrative officials. Both visits were very useful and informative for all parties involved.

Mr. Camara's visit was especially important in helping to resolve the issue of Masters degree equivalency for students from Mauritania.

Toward the Future

At this point in our contract, it is useful to mention briefly some major challenges or issues for participant training which arise from our experiences with the Sahel Masters Training Program. This list is by no means exhaustive, only illustrative.

1. AFR/DR/SFWAP might consider asking qualified Sahelian students to serve as consultants or participants in project design teams. While this kind of activity would somewhat lengthen the training program, it would provide an invaluable learning experience for the student.
2. Building the capacity in the Sahel to offer M.S. programs in Agricultural Economics remains as one of the major challenges facing Human Resources Development programming in the Africa Bureau of AID. Innovative approaches which go beyond bricks and mortar are needed. More attention should be given to staff development and to integrating action research programs from agricultural development projects into the nascent applied economics institutes in several Sahelian universities.
3. As we enter our fourth and fifth years of recruiting, the thinness of the manpower pool from which to draw qualified students is increasingly obvious. This is not a question of rigid academic standards, but rather a problem of identifying candidates with a sufficient number of years of education to enter a graduate program. Consequently, unless more attention is given to support higher education in the Sahel, USAID Missions must increasingly face the need to finance

2-3 years of undergraduate training before participants can enter graduate studies.

4. Many of the students will return to administrative positions where their academic training in agricultural economics provides only a foundation upon which they exercise largely administrative duties. Yet, rarely do the students follow either university or USDA short courses in various aspects of management. This is clearly an area of need for future efforts at providing continuing education.

| COUNTRY | NAME | Previous Institutional Affiliation | Program Status as of December, 1979: Enrolled M.S. Program | Preparatory Academic Work | English Language Training | Master's Paper Topic |
|---|---|---|---|---|---|---|
| GAMBIA | Al Haji Alioune NDJIE | Ministry of Agriculture | | X | | — |
| MALI | Dramane COULIBALY | Ministry of Rural Development Water & Forestry Service | X | | | An Analysis of Rice Supply & Demand in the Ivory Coast |
| | Bafotigui SAKO | Ministry of Planning, Division of Project Planning and Funding | X | | | Operation of Rural Development Projects |
| | Mariam TOURE | Ministry of Rural Development, Office of Livestock Development | X | | | Undetermined |
| MAURITANIA | Oumar FALL | Administrator, Government of Mauritania | | X | | |
| | Amadou MANGANE | Ministry of Rural Development | | | X | |
| | Elhaji Amadou WONE | Mauritanian Development & Commerical Bank | | | X | |
| NIGER | Assoumane BAOUA | Ministry of Rural Development | | X | | |
| | Sanda MAINA | Ministry of Rural Development | | X | | |
| SENEGAL | Mamadou DIALLO | Ministry of Rural Development | X | | | Comparative Analysis of Capital & Labor Intensive Irrigated Rice Projects in the Senegal River Valley |
| | Aboubacar KOUROUMA | Ministry of Rural Development, SODIFITEX | | | X | |
| | Amadou NIANE | Senegal Agricultural Research Institute | X | | | Supply & Demand of Millet & Sorghum in Senegal |
| | Lamine NIANG | Senegal Agricultural Research Institute | | | X | |
| | Jean-Pierre RIGOULOT | Ministry of Rural Development Casamance Regional Inspector | X | | | An Analysis of Constraints on Expanding Rice Output in the Casamance Region of Senegal |
| | Ibrahima SENE | Ministry of Rural Development SODEVA | X | | | Farmers Behavior Towards New Technology - The Senegalese Case |
| UPPER VOLTA | Ismael OUEDRAGO | Ministry of Environment and Tourism | X | | | Agricultural Marketing in the Eastern ORD |
| | Yewaya ZINABA | University of Ouagadougou | | | X | |

BUDGET REPORT

African Development Program:
Master's Training Program in Agricultural Economics
for Students from the Sahel

Total Budget

| Line Items | 10/1/76-9/30/77 | 10/1/77-9/30/78 | 10/1/78-9/30/79 | 10/1/79-9/30/80 | 10/1/80-9/30/81 | 10/1/81-9/30/82 | 10/1/82-9/30/83 | Total 10/1/76-9/30/83 |
|---|---|---|---|---|---|---|---|---|
| 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 | 4,093 | 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 | $21,425 | $40,472 | $57,682 | $61,131 | $60,436 | $41,689 | $292,270 |

Expenditures

| Line Item | Total Obligation 10/1/76-9/30/83 | Expenditures 10/1/76-9/30/77 | Expenditures 10/1/77-9/30/78 | Expenditures 10/1/78-9/30/79 | Total Expenditures 10/1/76-9/30/79 | Remaining Obligated Funds |
|---|---|---|---|---|---|---|
| Salaries | $141,350 | $ 6,081 | $ 5,362 | $18,550 | $29,993 | $111,357 |
| Overhead | 89,051 | 4,035 | 3,141 | 11,132 | 18,308 | 70,743 |
| Fringe Benefits | 19,514 | 964 | 762 | 2,897 | 4,623 | 14,891 |
| Travel/Transportation | 33,250 | 3,950 | 3,468 | 4,005 | 11,423 | 21,827 |
| Other Direct Costs | 9,105 | 292 | 1,361 | 1,838 | 3,491 | 5,614 |
| Total | $292,270 | $15,322 | $14,094 | $38,422 | $67,838 | $224,432 |

AGRICULTURAL ECONOMICS 882

Agricultural Policy in Sub-Saharan Africa

Course Objectives

This course applies the principles of various apsects of agricultural economics in order to analyze and draw specific policy conclusions concerning problems of agricultural development in sub-Saharan Africa. Students will be exposed to an analysis of particular problems and concerns through a series of seminars given by speakers from outside the department. Active student discussion of these presentations will be an important way for the students to demonstrate their ability to review critically both the readings and the presentations.

Seminar Format

The class will meet from 3 - 6 p.m. every Tuesday in Room 16, Agriculture Hall. Each week a speaker from outside the Department will present a new topic for which background reading has been suggested. Copies of the suggested reading are on the Assigned Reading Shelf in the Ag. Econ. Reference Room.

Two students will be assigned to review, discuss, and criticize the speakers' presentation in light of the readings and other information at their disposal. The remaining students will prepare a two-page action memorandum on the topic. This paper will be handed in on the day of the seminar. These position papers should be clear, concise and should contain the student's recommendations to his country's Minister of Rural Development concerning the topic under discussion. The action memorandum should present relevant background information which is probably not familiar to the Minister, lay out relevant policy options, briefly argue the merits of each and recommmend a specific course of action that the Minister should take. We expect each student to discuss three topics and prepare papers on five others.

Each seminar will consist of five parts: 1) A speaker will give a presentation of 30-45 minutes. 2) The seminar will open up to questions from the floor, including interested persons not enrolled in the course. 3) After 20-30 minutes of public discussion, non-registered participants will be asked to leave. The two students assigned as discussants will then talk about 10 minutes each to critique the speaker's presentation and conclusion. 4) Discussion will then open up to all participants for 45-60 minutes. 5) In the final 1/2 hour of each seminar, the seminar coordinator will outline important issues to be raised in the next week's presentation and discussion. Students are encouraged to work with each other in exploring and developing these issues for the subsequent session.

## Grading

| | |
|---|---|
| Position Papers | 60% |
| Student Critiques | 25% |
| Seminar Participation | 15% |

Students will be graded for each of the five papers to be prepared. Together these papers will make up 60% of the final grade. Each paper not handed in at the beginning of class will be penalized one full grade point. Both the papers and the discussant's presentation will be graded on the basis of clarity of presentation, depth of insight, convincingness of arguments and theoretical soundness, with roughly equal weight given to each. No deferred grades will be given for the course.

## List of Speakers, Topics and Required Readings

| Date | Speaker | Topic and Readings |
|---|---|---|
| Jan. 8 | James Kelly<br>Director AFR/SFWA | Prospects and Problems of U.S. Development Assistance to the Sahel |
| | Required Reading: | General Accounting Office. "U.S. Development Assistance to the Sahel Progress and Problems." Washington, D.C., GAO: Report to the Congress of the United States, March 29, 1979. |
| Jan. 15 | David Campbell<br>Department of Geography | The Role of Man in Desertification |
| | Required Reading: | Barry, L.; Campbell, D. J.; and Emker, I. "Trends in Man-Food Interaction in the West African Sahel" in Drought in Africa, Vol. 2. Chapter 9. Edited by R. J. Harrison-Church and D. Dalby. London: International African Institute, 1977.<br><br>Bernus, Edmond. "Case Study on Desertification: The EGHAZER and AZAWAK Region, Niger." Nairobi: U.N. Conference on Desertification, August 29-Sept. 9, 1977. |
| Jan. 22 | John Hunter<br>Department of Geography | Water Development Schemes and the Transmission of Disease in Africa |
| | Required Reading: | Hughes, C.C. and Hunter, J.M. "Disease and Development in Africa" in Social Science and Medecine, Vol. 3, pp. 443-493. 1970. |

| Date | Speaker | Topic and Readings |
|---|---|---|
| Jan. 29 | Wilford Morris Department of Agricultural Economics. Purdue University. | Economics of Millet Production in Senegal and Mali<br><br>(Required readings to be announced.) |
| Feb. 7<br><br>(Hours to be announced) | David Norman Department of Agricultural Economics. Kansas State University. | Developing Suitable Technology for Small Farmers |
| | Required Reading: | Norman, David and Hayes, Henry. "Developing a Suitable Technology for Small Farmers" in Modern Government/National Development, pp. 67-75 April, 1979.<br><br>Norman, David. "The Farming Systems Approach: Relevance for the Small Farmer" in Increasing Productivity of Small Farms, pp. 133-152. Edited by A. Karasapan. Ankara: CENTO, 1979.<br><br>Norman, David. "The Farming Systems Approach: Definition, Value and Problems." Paper presented at the USAID Rural Development Conference held at Skyland Lodge, Shenandoah National Park, November 25-29, 1979. |
| Feb. 12 | Kenneth A. Shapiro Department of Economics University of Michigan | Strategies for Livestock Development in West Africa |
| | Required Reading: | Shapiro, Kenneth H. "Livestock Economies of Central West Africa" in Livestock Production and Marketing in The Entente States of West Africa, pp. 4-65. Edited by Kenneth H. Shapiro. Ann Arbor: Center for Research on Economic Development, 1979. |
| Feb. 19 | Dominique Gentil (Tentative) | Making Cooperatives Work in West Africa |
| | (Readings to be announced.) | |

| Date | Speaker | Topic and Readings |
|---|---|---|
| Feb. 26 | George Abalu<br>Head of Dept.<br>of Agricultural<br>Economics,<br>Ahmadu Bello<br>University,<br>Visiting Professor<br>at Dept. of Ag. Econ.<br>at Purdue | Incorporating Equity Considerations in the Design of Rural Development Projects |
| | Required Reading: | Chambers, Robert. "Administration: Neglected Factor in Pastoral Development in East Africa" in Journal of Administration Overseas, Vol. XVIII, pp. 84-94. 1979.<br><br>Rondinelli, D. A. and Ruddle, K. "Political Commitment and Administrative Support: Pre-Conditions for Growth with Equity Policy" in Journal of Administration Overseas, Vol. XVII, pp. 46-60. 1978. |
| March 7 | Don Kanel<br>Director<br>Land Tenure Center<br>University of Wisconsin | Land Tenure Issues in African Agricultural Development |
| | Required Reading: | Paul Bohannan, "Land, Tenure and Land Tenure," in Daniel Biebuyck, ed. African Agrarian Systems (Oxford: Oxford University Press, 1963). Available as Land Tenure Center Reprint No. 105 (November 1973).<br><br>John M. Cohen, "Land Tenure and Rural Development in Africa", Harvard Institute for Internation Development, n.d. (mimeo). |

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