

MALI AGRICULTURAL OFFICERS' TRAINING PROJECT
INFORMATION FOR THE EVALUATION TEAM
PREPARED BY THE SECID TEAM
June 1984

PES ANNEX B

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TEAM MEMBERS

Dr A.J. Abshire, Agricultural Education, Administration Specialist
and Chief of Party

Dr Nguyen Hoang Son, Agricultural-Education Curriculum Specialist

Dr Albert Roberge, Agricultural Education Instructor

Mr Philip Michaud, Agricultural Education Instructor

Mr Ernie Bowen, Agricultural Education Instructor

Mr Steven Furst, Administrative Assistant

Mr Thomas Keegan, Mechanic, AID ^{PSC} ~~Direct Hire~~.

AGRICULTURAL OFFICERS' TRAINING PROGRAM

I. INTRODUCTION

The purpose of this report is to provide data about the Agricultural Officers' Training Program (CAA Project) which may be helpful to the evaluation team in their evaluative efforts. Besides the information presented in this report, reference is made to "exhibits" which contain additional information about the project. These exhibits are filed in the office of the SECID Chief of Party.

The baseline study for this project was a report written by James Bingen in 1976 entitled "Report of a Study on Agricultural Manpower Training and Extension in the Republic of Mali". This report served as a major appendix to the Project Paper and is filed as Exhibit I (1).

During the summers of 1978-80 Tuskegee Institute made six studies which provide a comprehensive profile and critique of the training system in use at that time and recommendations for curricula improvement. In these studies data were collected from monitors, teachers, students, employers, and farmers. Efforts were also directed at trying to determine the future need for monitors.

Copies of the Tuskegee Institute reports are filed as follows :

- Exhibit I (2) Survey of Malian Agricultural Monitors.
- Exhibit I (3) Study of Teachers in the CAAs in the Republic of Mali.
- Exhibit I (4) Study of Second Year CAA Students
- Exhibit I (5) The Third Year of Training
- Exhibit I (6) Survey of Farmers' Views
- Exhibit I (7) Future Needs for Monitors

A copy of the "Request for Proposal for Agricultural Extension Officers' Training" written in 1980 is filed as Exhibit I (8).

The contract between AID and SECID for this project, amendments to the contract and general provisions of the contract are filed as Exhibit I (9). This contract is dated October 1981; became effective November 16, 1981 and terminates on March 1, 1985.

The Project Paper for this project is filed as Exhibit I (10).

The total project consisted of (1) building a new school at Samé, (2) equipping both Samé and M'Pessoba schools, and (3) providing technical assistance for the improvement of the training received by monitors. The SECID team assisted in equipping the schools and provided the technical assistance.

This project is in the "Division de l'Enseignement Technique Agricole et de la Formation Professionnelle". Originally this division was in the "Direction Nationale de la Formation et de l'Animation Rurale" under the Ministry for Rural Development. Recently the division was placed under the "Direction Nationale de l'Agriculture" under the Ministry of Agriculture.

It is believed that this move to the Ministry of Agriculture will be beneficial to the project since the "Opérations" where most of the monitors are employed are under this Ministry and this should make for better cooperation among all concerned. An incomplete diagram of this Ministry is filed as Exhibit I (11).

The Division de l'Enseignement Technique Agricole et de la Formation Professionnelle (DETA-FP) is divided into sections. The division office is located in Bamako and it administers six schools — three CAAs located at Samé,

Samanko and M'Pessoba and three CSs located at Baguineda, Dioro and Kita. The division organization is shown on Exhibit I (12).

The training program for monitors lasts three years. The first two years of training are provided by the CAAs (Centres d'Apprentissage Agricole). The third year of training is provided by the CSs (Centre de Spécialisation) and by the "Opérations". The CAAs offer basic knowledge and skills needed by monitors, the CSs provide specialized training in the production of specific crops, and the "Opérations" provide on-the-job training.

Exhibit I (13) is an attempt to explain the educational system in Mali and shows how the training provided monitors fit in the overall picture.

After arrival on post the SECID team read all available material about the existing situation regarding the training of monitors, visited all schools and several operations where monitors are employed, and talked with many people involved or affected by this training program.

Team members then reviewed their findings and made recommendations for a course of action to bring about improvement. This is explained in Exhibit I (14).

The team decided on 24 main activities to pursue in attempting to bring about improvement as stated in the contract scope of work. Later, when it became obvious that much time, effort and funds would be needed in assisting with the operation and maintenance of the schools, a 25th activity was added to cover this area. These activities and the anticipated time-frame for completion are shown in Exhibit I (15).

Exhibit I (16) shows the increase in student enrollment in the first year of the CAAs, enrollment in all three years of the monitor training program, and the number

of students who successfully passed the CAPA exams and became monitors from 1960 through 1983.

The student enrollment goal set by the project is 160 first year students with 25 per cent of this number being girls. Exhibit I (17) shows the first year enrollment for the 1983-84 school year as 194 students composed of 143 boys and 51 girls.

Exhibit I (18) shows the number of personnel employed at each of the six agricultural schools during the 1983-84 school year.

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- Adama Koné - Director, Dioro CS
- Mahamane Cissé - Director, Kita CS
- Moulaye Mariko - Director, Baguineda CS

The local personnel working for the SECID team are as follows :

- Eramis Akaba - Accountant
- Djan Coulibaly - Administrative Assistant
- Zoumbo Tamboura - Secretary
- Adam Thiam - Typist
- Salimakan Soumaré - Guardian + Janitor
- Abdoulaye Traoré - Media Center
- Moriba Traoré - Janitor
- Siaka Socoba - Chauffeur + Mechanic
- Yacouba Samaké - Chauffeur
- Amadou Sidibé - Chauffeur
- Moussa Diarra - Guardian
- Zoumana Samaké - Guardian
- Drissa Dembélé - Guardian
- Tiéblé Konaté - Guardian
- Toumani Sangaré - Guardian
- Kalifa Samaké - Guardian

This project is fortunate in having a contract team whose members get along and work well together, who are well trained and experienced in agricultural education, who have had overseas experience and who are fluent in French ; Malian counterparts who are cooperative and anxious to help bring about changes for the betterment of their schools ; and a dedicated AID Project Manager who takes a personal interest in the project.

Resumes for the six SECID team members are files as Exhibit II (1).

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TABLE II (1) CONTRACT PERSONNEL ASSIGNED TO THE PROJECT

Name	Position	Degree	Employer	Start of Personal Contract	Date Reported on Post	End of Personal Contract	Principal Work Place
J. Abshire	Chief of Party Agricultural Education Administrative Specialist	Ph D	Louisiana State University	Jan.25, 1982	Mar.11, 1982	Mar.1, 1985	Bamako
uyen H. Son	Agricultural Education Curriculum Specialist	Ph D	University of Georgia	April 1, 1982	Jun.19, 1982	Mar.1, 1985	Bamako
nest Bowen	Agricultural Education Instructor	MS	Clemson University	Jan.11, 1982	Mar.11, 1983	July 9, 1984	Samé CAA Kita CS
llip Michaud	Agricultural Education Instructor	MS	University of Maryland	June 21, 1982	Sept.16, 1982	Mar.1, 1985	Samanko CAA Baguineda CS
bert Roberge	Agricultural Education Instructor	Ed D	Louisiana State University	May 19, 1983	Jun. 9, 1983	Mar.1, 1985	M'Pessoba CAA Dioro CS
ven Furst	Administrative Assistant	BA	SECID	Feb.1, 1982	Mar.11, 1983	July 31, 1984	Bamako
omas Keegan	Mechanic	BA	U.S.AID	Feb.15, 1983	Feb.15, 1983	Feb.14, 1985 <i>March 31</i>	All six Schools

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1

III. CONSULTANTS

The contract authorizes up to 18 man/months of short term Consultancy. On four different occasions it became advantageous to the project to secure the services of consultants for a total of seven man/months.

Information about the consultants assigned to the project appear in Table III (1) below.

Table III (1) - Short Term Consultants

Name of Consultant	Area of Specialty	Length of Assignment in Months	Final Report
Dan Archer	Teaching Aids	2	Exhibit III (1)
Vicki Shoen	Curriculum for Girls	2	" III (2)
Jim Diamond	Teaching Methods	1	" III (3)
Calvin Perrodin	Farm + Shop Skills	2	" III (4)
	TOTAL	7 man/months	

In addition to the four consultants mentioned above, a young college graduate, Martha Beharry, was assigned to the project as an intern under the International Fellowship Program for a period of four months and studied possible changes in the school Curriculum for female students. Her report is filed as Exhibit III (5).

The consultants and the intern mentioned above performed their assigned tasks in a capable and dedicated manner and their services contributed to the success of the project.

The need for additional short term consultants during the duration of the present contract is not anticipated.

IV. ADMINISTRATION

The goal of the project is to improve the training provided monitors. To accomplish this, some changes were required in the philosophy, attitudes, procedures and practices in existence at the start of the project. The role of change agent was not difficult for the SECID team because responsible local officials were receptive to recommendations and desirous of improvement.

While SECID team efforts are directed towards the improvement of administration, curriculum and instruction, all activities can be considered administrative because they require administrative approval and support. Some activities in which the SECID team participated, directly or indirectly, are listed as follows :

- Better scheduling, utilization and maintenance of facilities at the division office and in the schools.
- Better logistical planning in the procurement and use of equipment, supplies, and vehicles.
- Better staff planning and programing of division and school activities, such as participant training workshops
- Improvement of the internal management and administrative capability of the division and school staffs
- Expansion of the Teaching Methods and Program Section within the division
- Employment and training of a Supervisor of Instruction
- Development of an instrument to evaluate instruction
- Employment and training of a division librarian responsible for school libraries
- Improved personnel morale, motivation, cooperation and professionalism

- Establishing and equipping libraries at each school and training librarians,
- Study of the CAPA exam and the manner in which it is administered with a view towards improvement.
- Study of the entrance exam process in an attempt to have first year students arrive at school sooner.
- Getting the Extension Section within the division to collect current agricultural information and send it to the schools.
- Reduction of the amount of non-educational farm work performed by students.
- Establishment of a media center to reproduce courses, educational documents and administrative materials.
- Reporting of weekly school activities for the concluding week instead of for the following week.
- Establishing inventory records of school equipment and making an annual inventory.
- Encouraging schools to follow daily and weekly schedules more closely.
- Developing student guides to assist in orienting students to the school, staff and regulations.
- Inaugurating a student awards program to promote excellence through competition.
- Encouraging the closing of the Baguineda school and its transfer to the Samanko school.
- Maintenance of school generators, electrical systems, plumbing systems, and farm equipment

- Updating student school regulations and securing ministry approval.
- Developing and posting a staff organizational chart at each school and at the division.
- Conducting weekly staff meeting at each school attended by the director, assistant director and staff.
- Financing more visits to the schools by division staff members to improve communications
- Maintaining school vehicles in running condition for use in making field trips, procuring provisions, etc
- Making alterations and additions to the division offices.
- Promoting the transfer of equipment not needed at one school to another school where it is needed.
- Changes in personnel to strengthen administration in the schools.

Quarterly and annual reports are required of the project contractor. The quarterly reports are filed as exhibit IV-1 and the annual report as exhibit IV-2. The school directors submit reports at the end of each school year. These reports for the 1983-84 school year are filed as exhibit IV-3. Other exhibits are as follows :

Exhibit IV-4 Report of Activities, Steve Furst, Adm. Asst.

Exhibit IV-5 Student Guide

Exhibit IV-6 Rules of Student Awards.

Exhibit IV-7 Equipment Inventory Report

Exhibit IV-8 Financial Structure of the Division (DETA-FP)

Exhibit IV-9 School Regulations for Students

Exhibit IV-10 Minutes of Administrative Meetings.

V. CURRICULUM IMPROVEMENT

1. Background

Students selected for training as "moniteurs d'Agriculture" usually have completed at least nine years of general education. The selection is made through a competition exam called "concours d'entrée", in which four different tests are given : Spelling, Composition, Mathematics and Natural Science.

The training program for moniteurs lasts for three years. During the first two years, students receive basic agricultural training and general education in one of the three CAAs. After completion of the second year program, students receive their third year training either in one of the three specialized schools (CS) or in one of the agricultural services where they learn to be a moniteur. At the end of the third year, students must pass the agricultural professional aptitude exam in order to receive the certificate called "Certificat d'Aptitude Professionnelle Agricole" (CAPA). Holders of that certificate can become a "moniteur d'Agriculture" in the Malian public service system" (Exhibit 1).

The curriculum for the first two years is the same for all the three CAAs. On the other hand, each CS has its own specialized training program. The curricula of the CAAs and CS are presented in Exhibit 2. Training program for third year students who are not assigned to a CS varies with the services that supervise the students. Generally, these students work in the field with experienced moniteurs. They have to submit reports on their activities and on the social, economical and ecological conditions under which they have worked.

2. The Problem

Recent studies concerning the training of moniteurs have indicated that the moniteurs in the field had limited knowledge and practical experiences relative to the Malian society in general and the Malian agriculture in particular. They lacked

technical and communication skills, ability to adapt to the rural environment and professionalism. As a result, they had difficulty in dealing with the problems they encountered as moniteurs in the village.

The deficiencies of the moniteur were attributed to an insufficient and inappropriate curriculum, inadequate school facilities and instructional materials, the lack of creative and proper teaching strategies, and the shortage of competent teaching and administrative personnel. Thus, the problem facing the technical assistance team is not only to improve the curriculum but also to improve other aspects in the CAA system such as personnel, facilities etc...

Specifically speaking of curriculum, there is a need for its revision so that it becomes more relevant and adapted to the functions of the moniteur in the field. Thus, the technical assistance team must repond to the following questions :

- What is the most effective and efficient approach to the revision of curriculum ?
- How to ensure that the revised curriculum will be implemented effectively at the schools ?
- What must be done so that the work on course revision will be continued by local counterparts after the termination of the project ?

3. Approach to the problem

3.1. Guidelines for curriculum improvement

During the agricultural education seminar organized by the DETA-FP at the Samanko CAA in 1981, the profile of the moniteur was described in light of findings by the Tuskegee research team. The seminar also adopted a resolution which specified guidelines for curriculum revision, with regard to course content, teaching methods... The report of this seminar is presented as Exhibit 3.

To bring about the improvement of curriculum, the technical assistance team made the following recommendations :

- 1° The training program should cover the functions of agricultural production, organization, economic management, cooperation, animation and communication of the moniteur.
- 2° The training program should instill in students a sense of professionalism and the ability to adapt and respond effectively to the changing needs of the Malian society and agriculture.
- 3° The curriculum should be revised in order that it becomes more practical, relevant and adapted to the functions of the moniteur in a Malian context.
- 4° Agricultural courses should provide students with up-to-date knowledge and practical experiences in all aspects of the production of important crops in Mali.
- 5° Farm mechanics course should be relevant to the level of technology in the village. It should include the operation, care and repair of standard farm equipment in Mali.
- 6° Animal husbandry courses should emphasize basic knowledge and practical experiences regarding the selection, feeding, care and training of farm animals commonly found in villages.
- 7° Topography course should ensure the acquisition of practical skills in basic land surveying.
- 8° Rural economics course should include techniques used in the study of agricultural practices, farm management, cost-benefit analysis of production inputs, commercialization and agricultural credit.

- 9° Extension course should teach techniques in planning a strategy of agricultural development for a village community, principles of community organization, use of research reports, extension methods and making teaching materials to use in the field. It should also instill in students a sense of initiative and self-reliance.
- 10° General education courses should be oriented toward agricultural problems to increase the effectiveness and efficiency of the moniteur in the field.
- 11° Practical works during the first two years at the CAAs should be made more relevant and purposeful. They should be linked to classroom instruction and students should attempt to apply improved techniques recommended by agricultural production services in order to observe their effects.

3.2. Approach to course revision

Curriculum revision started with the analysis of tasks or functions performed by the moniteurs in the field. To make such an analysis, the technical team considered results of past studies made by several institutions and contacted various agricultural services that employ moniteurs. The list of these services is provided in Exhibit 4. In Addition, inputs were also obtained from teachers and students in the schools. Several seminars and workshops were organized for this purpose.

After the tasks of the moniteur have been identified, course objectives were developed in terms of student behavior. In ~~other~~^{other} words, curriculum revision was based on the concept of competency based education, which implies the development of behavioral or performance objectives and the use of active teaching methods. Emphasis was placed on problem solving approach in teaching learning, creative thinking, effective use of

instructional materials and practical learning experiences.

Following the development of course objectives, the writing of the course was done by the SECID technicians with the collaboration of their counterparts.

3.3. Involving instructors in the process

Instructors were encouraged to participate actively in the revision of curriculum. The objective was to make them feel that they are part of the team and that the revised courses are their products. Their participation is also an opportunity for them to receive in-service training and it will facilitate the acceptance of new curriculum.

To achieve the above objective, the work on course revision was planned in two phases :

Phase 1 : The technical assistance team revised a number of courses that would serve as models. These courses were also used to test the effectiveness and acceptance of the approach in course revision.

Phase 2 : The team technicians worked together with instructors to revise other courses, after the latter have received adequate training in course revision. Several workshops were organized for such purpose. It is hopeful that at the end of this phase, the instructors will be able to assume the responsibility themselves.

3.4 Implementation of revised courses

Before a revised course was put into effect, the draft of its manual was shown to concerned instructors for review of its content and format.

To facilitate the implementation of revised courses the following actions have been taken by the technical assistance team :

- Training instructors in new teaching methods, development and use of instructional materials ;
- Making available to instructors all necessary reference materials ;
- Improving school facilities by supplying necessary equipment and materials ;
- Providing the instructors with all the equipment and materials necessary to teach the new course ;
- Helping instructors develop plans and teach new courses by SECID technicians assigned at each school.

As a result, the schools are in better condition, and the instructors are well prepared for the instruction of new courses. The media center at the DETA-FP has reproduced many copies of reference materials and teaching aids (charts, transparencies...) that were made available to the schools. These materials are presented as Exhibit 5.

4. Result of course revision

Up to date, eight courses have been completely revised by the SECID team, the World Bank technicians and Malian teachers. They are in Exhibit 6 and can be listed as follows :

- 1° Economie Générale et Rurale
- 2° Vulgarisation I (Les Communications)
- 3° Vulgarisation II (Etude du Milieu et Méthodes de Vulgarisation).
- 4° Cultures Maraîchères
- 5° Etude des Sols
- 6° Travail et Aménagement des Sols
- 7° Fertilisation des Sols
- 8° Botanique I (Morphologie et Reproduction).

The following courses are being revised with the active participation of instructors :

- 1° Botanique II (Physiologie et Ecologie)
- 2° Topographie
- 3° Protection des Végétaux
- 4° Multiplication et Amélioration des Végétaux

Also, a teacher's guide for the economics course is being developed.

5. Evaluating revised courses

To evaluate the effectiveness of the revised courses, the technical assistance team employed a questionnaire (Exhibit 7) and direct interview to get feedback from teachers regarding the application of the new courses.

With the exception of the Economics course, all other courses were given high marks by the teachers. As for the Economics course, the teachers thought that it contained too much information without clearly defined objectives. They expressed their desire for a teacher's instructional guide for this course. Consequently, such a guide is being developed.

Copies of newly revised courses were also sent to other agricultural services outside the CAA system for evaluation. So far the responses have been favorable. Evidence for the success of new courses can be seen through the fact that teachers from other institutions such as the School of veterinary have asked for copies of the courses and use them at their school. In addition, technicians in the field and even an exporter of agricultural products from Mali have come to the technical assistance team for the documents.

6. Conclusion

The process of curriculum change has many facets, including the study of courses, research of available sources that are current and relevant, development of measurable

performance objectives, design of instructional units, reproduction of new courses, provision of in-service training for teachers in the new curriculum, trial of new instructional materials, making necessary course changes, then full implementation and evaluation of results.

It is time consuming and requires careful planning and supervision. The technical assistance team has been working with limited resources. The shortage of qualified personnel, lack of time and the difficulty in finding references materials have been the three important factors that hinder the progress of curriculum improvement.

On the other hand, it should be kept in mind that the quality of the moniteurs graduated from the CAA system cannot be improved by curricular changes alone. There must be also improvement of school facilities, instructional materials, teaching personnel and educational administration.

List of exhibits referred to in this section :

Exhibit V.1 : The CAA's in Malian Education System

Exhibit V.2 : Curricula of the CAAs and CSs.

Exhibit V.3 : Report of the Agricultural Education Seminar at Samanko in 1981.

Exhibit V.4 : List of services and organizations contacted by project personnel to get inputs for curriculum improvement.

Exhibit V.5 : Reference materials and teaching aids reproduced by the Media Center.

Exhibit V.6 : Copies of revised courses.

Exhibit V.7 : Evaluation questionnaire.

VI. IMPROVEMENT OF INSTRUCTION

The SECID team has directed efforts to improve instruction by leading teachers away from the rote learning of theory and to more practical teaching methods requiring the use of well prepared lesson plans, updated courses and teaching aids.

Pedagogic training has been provided teachers through workshops, weekly meetings, and individual assistance by the SECID professors stationed at the schools. The SECID team has updated courses to make instruction more relevant and provided visual aids to make learning more interesting.

A lesson plan form (Piche Pedagogique) has been standardized for use by all instructors. Use of this form in lesson preparation assures that instructors give consideration to such items as objectives of the lesson, teaching aids to use, study questions, knowledge to be gained and skills to be developed.

The employment of a supervisor of instruction to evaluate all teachers twice annually, and the development of an evaluation instrument for his use, have assured compliance with the new teaching methods, and have given teachers a gauge or guide helpful in improving their performance.

The evaluation of instruction by the Supervisor of Instruction during the 1983-84 school year shows much improvement over the previous year. Likewise school directors, teachers and students responded favorably when queried about the improvement in instruction.

Libraries have been established at each school and in the division office, and these are being provided with furniture, books, bulletins and periodicals. Librarians have been trained and the libraries are beginning to play a role in the overall training program at each school.

Farm equipment and supplies have been provided to enable the school farms to play a greater role as laboratories for skill development in the agricultural courses. Small demonstration plots have been developed in the CAAs to supplement the school

farms in the coordination of classroom and practical training.

The training of the mechanics that maintain school vehicles, tractors and farm equipment has not been neglected. Individual training has been provided these mechanics. Equipment and supplies to properly equip these shops have been provided and maintenance records and procedures have been established.

Three SECID instructors have devoted their efforts to the improvement of instruction. At first their assistance was given mostly to the staffs of the three CAAs, however in the last several months assistance has also been given to the staffs of the three CSs.

Ernest Bowen has worked at the Samé CAA and the Kita CS, Philip Michaud at the Samanko CAA and the Baguineda CS, and Albert Roberge at the M'Pessoba CAA and the Dioro CS. Tom Keegan has worked with the mechanic staff at the three CAAs. Their reports of activities are listed below as exhibits.

Reports on the workshops (participant training) pertaining to the improvement of instruction are listed as exhibits in section VII. (See exhibits VII-2,4,10,12,14,19,20).

Other exhibits concerning training are listed as follows :

- VI-1 Report of Training Activities, Ernest Bowen
- VI-2 Report of Training Activities, Philip Michaud
- VI-3 Report of Training Activities, Albert Roberge
- VI-4 Report of Training Activities, Tomas Keegan
- VI-5 Lesson Plan Form
- VI-6 Evaluation Instrument

- VI-7 Topics of Weekly Pedagogic Discussions
- VI-8 Results of Evaluations by the Supervisor of Instruction
- VI-9 Lecture Topics of Interest to Teachers
- VI-10 Report of Evaluation of Instruction, 1982
- VI-11 Report of Evaluation of Instruction, 1983
- VI-12 An Introduction to the CAA Project
- VI-13 Sample lesson plans.

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VII. PARTICIPANT TRAINING

The project contract anticipated a total of 78 person/months of short term participant training. As of May 1, 1984 a total of 78.8 person/months of training has been completed. An additional 7.7 person/months of training is planned during the present contract which includes training at Penn. State University for Djibril Sangaré during August-December 1984 and a workshop for school and division administrators in February 1985.

Table VII-1 contains data relative to participant training completed prior to May 1, 1984. Short reports on all training programs conducted are provided as exhibits and these exhibits are listed in Table VII-1. Which appears on the next page.

TABLE VII-1 PARTICIPANT TRAINING COMPLETED PRIOR MAY 1, 1984

Date of Training	Type of Training	Place	No. of Participant	Man/Days Training	Approximate Cost	Exhibit No
12 /27/82-12/30/82	Workshop in School Administration	Bamako	20	80	\$ 1,600.00	VII-1
3/22/83-3/26 /83	Seminar (Workshop and Conference)	Samé	92	460	9,125.00	VII-2
3/28/83-4 /1 /83	Workshop for Librarians	Bamako	15	75	1,405.00	VII-3
3/27/83-4/ 1 /83	Workshop on Course Revision	Samé	30	150	1,860.00	VII-4
4/18/83-4/30 /83	Topography Wrkshp	Bamako	11	132	3,825.00	VII-5
4/18/83-6/24 /83	Farm Machinery Training	Paris	1	50	2,851.00	VII-6
5/11/83-5/13 /83	Plant Protection Workshop	Bamako	6	18	572.00	VII-7
5/16/83-5/21 /83	Plant Protection Workshop	Dakar	6	30	729.00	VII-8
6/20/83-6/24/ 83	Workshop for Librarians	Bamako	1	5	21.00	VII-9
7/14/83-7/30 /83	Teaching Methods Workshop	Bamako	3	45	463.00	VII-10
7/25/83-8/ 4/ 83	Rural Development Workshop	Bamako	1	10	48.00	VII-11
8/22/83-10/17/83	Training in Teaching Methods and Management	Paris	3	100	18,821.00	VII-12
11/9/ 83-11/22/83	Welding Training	Bamako	2	18	155.00	VII-13
12/12/83-12/21/83	Teaching Methods Workshop	Bamako	7	49	586.00	VII-14
2/ 1/84- 2/ 3/84	Administrators Workshop	Bamako	20	60	1,185.00	VII-15
3/ 5/84- 3/ 6/84	Curriculum for female Students	Samanko	13	26	522.00	VII-16
3/ 7/84- 3/ 8/84	Practical Training - Farm + Shop	Samanko	36	72	1,444.00	VII-17
3/ 9/84- 3/10/84	Use of School Facilities	Samanko	29	58	1,163.00	VII-18
3/12/84- 3/14/84	Teaching Methods Workshop	Bamako	36	108	2,166.00	VII-19
3/10/84- 4/17/84	Observation Trip to the US(39 days)	U.S	3	117	26,000.00	VII-20
4/16/84- 4/20/84	Workshop for Librarians	Samanko	11	55	511.17	VII-21
4/16/84- 4/20/84	Plant Protection Workshop	Dakar	3	15	32.50	VII-22

1,733 person/days divided by 22 = 78.8 person/months of training

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