

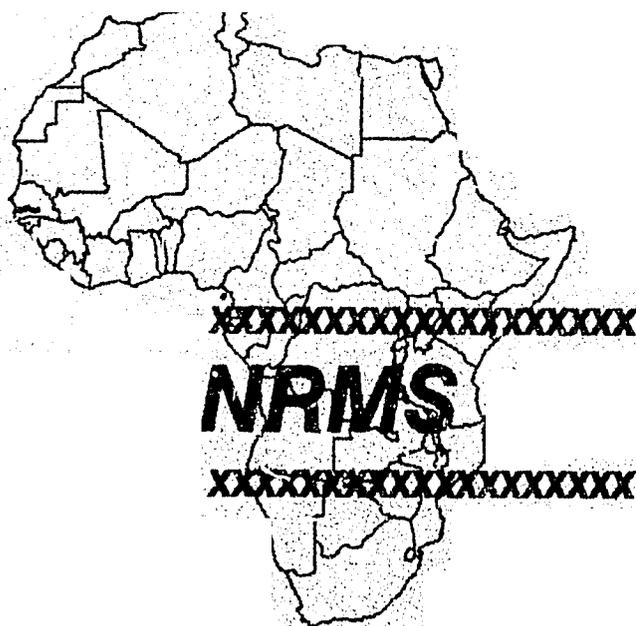
**Report on the Natural Resource Management Support Project
Training Workshops in Agroforestry and
Natural Resources in West Africa**

Peter E. Linehan, Principle Trainer
Chris Seubert, Technical Coordinator

August, 1990

Natural Resources Management Support Project
(AID Project No. 698-0467)

Contract No. AFR-0467-C-00-8054-00



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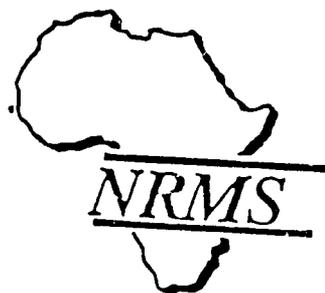
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Report on the Natural Resource Management Support Project Training Workshops in Agroforestry and Natural Resources in West Africa

1. Terms of Reference and Objectives of Training Program

One of the objectives of The Natural Resource Management Support (NRMS) Project was to conduct a series of seminars to improve the abilities of trainers and supervisors to teach extension workers and others who are responsible for implementing natural resource projects. Based on available training materials and needs expressed in the field, the workshops concentrated on extension methods and agroforestry techniques to be used by village development workers. The four West Africa workshops were held in Senegal, Niger and Mali between February and June, 1990.

The first workshop, held in Senegal, was a regional workshop to train trainers. Invited participants were senior officers in projects in their own countries, either directors or training managers. They took advantage of the materials for use back home in their own programs. Also, many of them participated in the local workshops.

Three local workshops were held afterward in Niger, Mali and Senegal. Original plans were to hold the fourth workshop in Guinea-Conakry. However, NRMS staff could not locate an adequate training center there. Instead, it was decided to hold the last workshop in Senegal, and invite participants from Guinea.

Eighty-five people attended the four workshops. All of them were active in rural development programs in some capacity. Some were from government agencies, while others worked for PVOs. They came from several different technical fields including forestry, agronomy, animal science, administration, and land management. More detailed descriptions of each group appear in the annexes for each workshop.

This report covers the technical aspects of the workshops. Organizational and logistical problems are covered only when they had direct bearing on the training program. NRMS sent a two-person team to conduct each of the workshops--the principal trainer and a project staff member to handle finance and logistics. The scope of work for the trainer is attached (Annex 1).

2. Training Methods Used

NRMS chose the CARE Agroforestry Sourcebook as the primary training resource. The Sourcebook is an extensive training manual created by CARE in Kenya for its field workers to learn extension methods and agroforestry techniques to use in villages. The original manual was written in English. It consists of ten modules to be followed successively (Table of Contents attached in Annex 2). Each module gives training instructions and examples for teachers, as well as the actual lessons to be given to students. There is enough material to conduct a five- to six-month program.

One of the problems in planning the workshops was to choose the correct material to give the essentials of the program in a two-week period. The major areas of concentration used from the Sourcebook were:

- effective communication methods
- extension methods, and
- agroforestry diagnosis and design techniques.

During the workshop planning and preparation phase in December 1989, and January 1990, the Sourcebook was being translated into French. It was unknown whether or not it would be ready for the first workshop. (The translation was, however, completed and printed in time). Also, the Sourcebook makes extensive reference to specific information in an associated collection of resource materials consisting of extracts from manuals, technical articles and other materials. These were not being translated due to the lack of time, and the fact that many of these materials were not applicable to West Africa.

For these two reasons, participants were provided with additional technical documents, in French, that dealt specifically with West African arid lands environmental conditions (Annex 2). An often-voiced constraint for development workers is the lack of adequate reference materials. The NRMS workshops addressed this problem by providing as many technical documents as possible, including resource materials found in-country and photocopies of guest speaker lecture notes. In addition, NRMS purchased one year subscriptions for each of the participants to a natural resource conservation and development newsletter, Entre Nous, produced bimonthly by Rodale International, in Thiès, Senegal.

Participatory methods were used during the workshops as much as possible. There were many small group discussions on the various themes followed by meetings of the entire group. Class lectures were kept to a minimum as much as possible although they were required in several of the technical areas.

Guest speakers were used extensively. This was done to take advantage of local expertise and to ensure local relevancy. Also, it provided different points of view to stimulate discussion. Most of the speakers were well informed and comfortable before an audience. However, since we were not able to screen them all in advance, some were stronger than others. The guest speakers usually provided written documents of their lectures. Speakers were encouraged to allow as much time as possible for class discussion.

For each workshop a minimum of two days of field trips were included. The field trips provided concrete examples of ideas that had been presented in the classroom setting and stimulated discussion about the material presented. Most of the trips were to village-based agroforestry, reforestation and soil conservation projects. The sites visited are listed in the annexes describing each of the workshop programs.

3. Training Program Organization

Each of the workshops were held in collaboration with existing local agencies. The quality of the local cooperation varied from one country to the next and ranged from minimal involvement in the workshop to integral planning and management. The use of local cooperating organizations can be very effective provided the duties of both parties are well defined in advance. Local cooperators provide the workshops with a grounding in local concerns that a Washington-based regional project such as NRMS cannot do.

Each workshop lasted about ten working days, although this varied somewhat. The descriptions of each workshop are given in their respective annexes.

4. Participant Evaluations of Program

At the end of each workshop, participants were asked to fill out an evaluation form (Annex 3). On the whole, the evaluations were favorable as to the contents of the course. Participants particularly appreciated the chance to exchange experiences and ideas with colleagues, especially among workers from different agencies and different disciplines. Many suggested they would like individual synthesis reports of each session (something that wasn't planned for originally, but was included in later sessions). A few people thought some of the speakers were too academic. They all appreciated the extensive documentation they received. Participants varied in their views on the number and length of field trips. Each workshop generated various comments, both pro and con, as to the facilities and logistics.

5. Recommendations

5.1 Course Content and Materials

The subject areas of the workshops (agroforestry, extension methods and village-level natural resource conservation and management) are very timely. The environmental problems of the Sahel are becoming more severe each day. Most of the governments of the region are scaling back their development programs due to budget constraints. Consequently, rural people are expected to participate in their own development. Participative extension methods and agroforestry-based integrated farming methods are ideal for these circumstances. Extension workers need help to adapt their methods to these new realities.

The CARE manual contains many excellent ideas. Its training approach is very effective and can be easily adapted to changing needs. For example, the Senegal Reforestation Project has completed a first version of a revision of the manual to be more concise and relevant to the Senegal situation. If it is to be used again, it should be edited down to the amount of material useable for the length of the workshop. Also, the translation needs to be improved.

Given the lack of technical information available for extension workers, any future workshops should continue to give as much documentation as possible to participants. Although they won't be able to absorb all the materials during a two-week workshop, they will have them for use.

The length of the workshops was about right as a refresher course for practicing extension workers. It allowed time for classroom discussion on many themes and the chance to have field trips. Shortening the time would require reducing the subject matter covered. A longer workshop could certainly be planned to explore the Agroforestry Diagnosis and Design Process in greater detail. However, it would be difficult for workers to get more time off from their busy schedules.

An extension method gaining wide acceptance in the region is the flannelgraph technique developed by Groupe de Recherche et d'appui pour l'autopromotion Paysanne (GRAAP), of Burkina Faso. This technique uses concrete steps to help villagers discover the root causes of their problems and to develop solutions on their own. It emphasizes the steps of Voir, Reflechir et Agir (Discover, Reflect and Act). They have several programs designed for use in the natural resource management area. Extension workers using this method are more confident, and are more effective, in their extension efforts. Also, it empowers villagers to take a positive role in their development.

During the Mali workshop, participants did a two-day session on this method, taught by a certified GRAAP trainer. They were very enthusiastic about it. This method should be considered for inclusion in the programs of future workshops.

5.2 Project Approach

For the training to be more effective and have better possibilities for follow-up sessions, there should be a long-term commitment to natural resource training programs. A resident, regional team would be ideal to carry out this effort. The need to develop institutional relationships through repeated personal contacts and detailed knowledge on the situation in each country limits the effectiveness of a training program managed from Washington.

5.3 Organization and Logistics

Throughout the series of workshops we learned that per diem and food and lodging conditions must be made very clear to participants before they arrive at the workshop. This eliminates participant complaints and dissatisfaction during the workshop and creates a better atmosphere for learning.

ANNEX 1: Terms of Reference for Principal Trainer

Agroforestry and Natural Resources
Extension Training Workshops for West Africa

Scope of Work for Trainer

The Natural Resource Management Support Project (NRMS) is charged with lead responsibility for conducting a series of ten-day natural resource training workshops in nine countries in sub-Saharan Africa. The goal of the workshops is to improve the abilities of trainers and supervisors to teach extension workers and others who are responsible for implementing natural resource projects.

The French language training workshops in West Africa are scheduled to take place between February and May, 1990. The tentative dates for each workshop are: Senegal, February 19 to March 2, 1990; Niger, March 12 to 23, 1990; and Mali, May 4 to 18, 1990. It is anticipated that a local workshop will be held in Senegal but arrangements have not been finalized. The dates for the second Senegal workshop will be May 28 to June 8, 1990.

The training workshops are focused on training trainers and gives special emphasis towards training PVO's and NGO's involved in implementing natural resource projects. Workshop participants will include representatives of NGO's, host-country governments, and donor assistance agencies that are involved with natural resource extension programs.

The principal trainer will be responsible for: 1) preparing training materials that follow the format and outline used in the CARE Agroforestry Sourcebook, 2) logistics and training preparation work one week prior to the start of each workshop, 3) presenting lectures, advising participants and organizing workshop activities, 4) supervising assistant trainer and local trainers, and 5) final report and course evaluation. The time allocation for each activity is shown below:

Workshop Material Preparation	Jan 8-12, 15-19
Senegal Workshop Preparation	Feb 12-17
Senegal Workshop	Feb 19-24, 26-28 and Mar 1-3
Niger Workshop Preparation	Mar 5-10
Niger Workshop	Mar 12-17, 19-24
Mali Workshop Preparation	Apr 30-May 5
Mali Workshop	May 7-12, 14-19
Second Senegal Workshop Preparation	May 21-26 (tentative)
Second Senegal Workshop	May 28-June 2, June 4-9 (tentative)
Final Report and Course Evaluation	June 11

Regional workshops will be held in Senegal and Kenya prior to the other seven workshops. This will give the trainers a chance to present their training materials and make modifications prior to presenting the workshop in the other countries. The regional workshops will also enable the organizers to introduce to members of collaborating organizations the workshop curriculum before it is taught in their country.

The training methodology will include participant involvement and participants are expected to share their experiences in natural resources with each other. Participants will lead sessions, present their experiences to the group, as well as act as resource persons in training activities.

ANNEX 2: Training Materials Used

NRMS used the CARE Agroforestry Sourcebook developed by CARE in Kenya as the primary training resource (Sourcebook table of contents attached), which was originally written in English, was translated to French through a cooperative arrangement between the Senegal Reforestation Project, the Forestry Support Project and the NRMS Project. The Sourcebook is an extensive training manual and was developed to teach field workers how to use extension methods and agroforestry techniques in villages. It consists of ten modules to be followed successively. Each module gives training instructions and examples for teachers, as well as the actual lessons to be given to students. There is enough material to conduct a training program of several months.

The book Reboisement en Zones Arides, (also available in English as Reforestation in Arid Lands) by Fred Weber with Carol Stoney was given to each workshop participant. This book, which is published by VITA, is a good general guide for reforestation in West Africa and covers a variety of topics. It has extensive sections on project planning, forestry practices, agroforestry interventions and tree identification and uses. This resource was appreciated by the participants.

The booklet Pour Une Pédagogie de L'Autopromotion, by GRAAP. This booklet puts forth, in simple French, a philosophy of development based on local participation at all levels of the process. Villagers are seen as the masters of changes in their environment with the power to create their own futures.

The booklet La Lutte Anti-Erosive, by INADES Formation was also used in the workshop. This booklet explains in basic terms the causes of soil erosion and presents practical techniques for soil conservation, including the use of tube and A-frame levels for laying out contour lines in the field.

Another workshop document was Le Sahel: Une Zone Forestière, Document Guide pour le Séminaire Régional sur l'Approche Participative et les Techniques Forestières au Sahel. This information was taken from a pre-conference document for a regional meeting held in Niger in January, 1988. It contains outlines of the environmental problems and national statistics for each of the CILSS nations. Excerpts pertaining to each country were distributed at each workshop to stimulate discussion.

CONTENTS

- TRAINING MODULE 1 BEGINNING AGROFORESTRY EXTENSION TRAINING**
Orientation to the project, the training program and one another.
- TRAINING MODULE 2 INTRODUCTION TO AGROFORESTRY**
The relevance of agroforestry. Basic concepts and principles.
- TRAINING MODULE 3 PROJECT APPROACH TO AGROFORESTRY EXTENSION**
Developmental approaches. Roles of extension team members and farmers in participatory agroforestry extension.
- TRAINING MODULE 4 AGROFORESTRY EXTENSION COMMUNICATION**
Teaching and communication techniques for participatory extension.
- TRAINING MODULE 5 LAND USE DIAGNOSIS FOR AGROFORESTRY**
Diagnosing land use and farming system problems. Survey and inventory techniques.
- TRAINING MODULE 6 AGROFORESTRY DESIGN**
Designing appropriate agroforestry interventions.
- TRAINING MODULE 7 PLANNING, MONITORING AND EVALUATING AGROFORESTRY EXTENSION ACTIVITIES**
Planning, monitoring, and evaluating agroforestry activities.
- TRAINING MODULE 8 SEED SUPPLY**
Agroforestry seed supply, collection and storage techniques for developing reliance on local supplies.
- TRAINING MODULE 9 NURSERY MANAGEMENT**
Plant production in small scale, farmer-managed nurseries.
- TRAINING MODULE 10 TREE PLANTING, PROTECTION AND MANAGEMENT**
Agroforestry tree planting, protection and management.

ANNEX 3: Sample Evaluation Questionnaire

EVALUATION DU STAGE SUR LA VULGARISATION DE L'AGROFORESTERIE
ET DE LA GESTION DES RESSOURCES NATURELLES

MODULES DE FORMATION

1. Les modules sont indiqués ci-dessous. Préciser l'importance de ces modules par rapport à votre activité professionnelle et le degré de réalisation de leurs objectifs avec une note. Le degré d'importance est divisé en trois niveaux : (3) très important ; (2) peu important ; (1) sans intérêt. Il en est de même du degré de réalisation des objectifs : (3) objectifs réalisés entièrement ; (2) objectifs réalisés partiellement ; (1) objectifs non réalisés (voir tableaux ci-après) :

modules	Importance			Realisation d'objectif		
1. Exercice sur les Approches de Vulgarisation	3	2	1	3	2	1
2. Politique nationale de Reboisement	3	2	1	3	2	1
3. Introduction à l'Agroforesterie	3	2	1	3	2	1
4. Structuration du Manuel CARE	3	2	1	3	2	1
5. Exercice sur le Planning d'un Projet dans le Bassin Arachidier	3	2	1	3	2	1
6. Blocages à l'Agroforesterie	3	2	1	3	2	1
8. Exercice de l'utilisation du Manuel CARE dans la Formation	3	2	1	3	2	1
9. La Sociologie Villageoise	3	2	1	3	2	1
10. La Pédagogie du Formateur	3	2	1	3	2	1
11. La Sociologie Villageoise	3	2	1	3	2	1
12. Visite du Projet de Reboisement Villageois dans le Nord du Bassin Arachidier (PREVINORA) - THIES	3	2	1	3	2	1

Modules	Importance			Réalisation d'objectif		
13 Le Diagnostic des Systèmes Agroforestiers	3	2	1	3	2	1
14 Exercice sur le Diagnostic de la conception	3	2	1	3	2	1
15 L'Agroforesterie et la Conservation des Eaux et Sols	3	2	1	3	2	1
16 Autres Techniques d'Agroforesterie	3	2	1	3	2	1
17 L'Erosion Eolienne, les Brise-vents	3	2	1	3	2	1
18 Les Opérations Forestières Choix des Espèces, les Ressources de Semences	3	2	1	3	2	1
19 Les besoins en eau	3	2	1	3	2	1
20 La Protection des Plantes	3	2	1	3	2	1
21 Visite du Projet de Reboisement Communautaire Dans le Bassin Arachidier (PRECOBA)	3	2	1	3	2	1
22 Visite du Projet Anacardier Sénégal-Allemand (PASA)	3	2	1	3	2	1

2. Indiquer d'autres modules qui pourraient être inclus dans le thème du séminaire

3. Indiquer d'autres modules qui pourraient être exclus du thème du séminaire

4. Indiquer les modules qui devraient être les plus approfondis

5. Indiquer les modules qui peuvent être les moins approfondis

6. Remarques sur les aspects relatifs aux formateurs de la session

II. - OBSERVATION D'ORDRE GENERAL

1. Qu'est ce que vous avez aimé le plus à propos de cette session de formation ?

2. Qu'est ce que vous avez aimé le moins à propos de cette session de formation ?

ANNEX 4: Senegal Regional Workshop

The Senegal Regional Workshop was held from February 19 to March 3, 1990 at the forestry training center in Kaolack. The workshop program and name and address list of the participants is contained at the end of this annex.

PARTICIPANTS

The twenty-two participants for the workshop came from Niger (5), Mali (8), Senegal (7) and Guinea (2). They were from a variety of disciplines such as forestry, agronomy, rural sociology, agro-economics and extension training. There were representatives from both government agencies and PVO groups. Most of the participants were college educated and were either project directors or training managers.

WORKSHOP LOCAL SUPPORT

Both logistic and program support were received from the Centre de Recyclage Permanent Pour la Promotion des Programmes Forestiers (CPPPF), an FAO-funded project. The Center is Senegal's official forestry retraining site, and it holds as many as twenty week-long workshops a year on various themes.

The Center did an excellent job of finding and arranging for guest speakers and field trips. Support from the Center's staff in facilitating daily activities was also very good.

The Center itself is located in downtown Kaolack, in the second floor of an office building. This site is poorly adapted for natural resource training. The physical facilities are cramped and uncomfortable. In fact, FAO and the Senegal Forest Service are planning to build a new facility in Thiés. Due to the poor condition of the dormitories at the center the participants were lodged at a local hotel and this caused some transportation delays on several occasions.

TOPICS COVERED

The following topics were covered in the Senegal regional workshop:

Tuesday, February 20

1. Session Leader: Linehan. Session Title: Small group exercise comparing participative versus structured village extension techniques. Participants were asked to write down five positive and five negative points for the two approaches. An overall discussion followed each group's report.

2. Ibrahim Gueye. Senegal Forestry Situation. Document used: Politique Nationale de Reboisement. Discussed the overall ecological situation of Senegal by region and outlined the government's strategy to combat desertification and environmental degradation.

3. Ibrahim Gueye. Introduction to Agroforestry, Principles and Philosophy of Land Use. Introduction à l'Agroforesterie, Principes, Philosophie de L'Utilisation des Terres

Wednesday, February 21

1. Linehan. Structure of the CARE Manual. Discussed the teaching approach of the training, as well as the organization and subject areas taught.

2. Linehan. Small Group Exercise on Project Planning. To illustrate the CARE Manual training approach, an exercise from Module 3 was adapted. Participants were asked to brainstorm to find five possible activities for a village in Senegal's Peanut Basin. Specific constraints were imposed including: sandy infertile soils, growing population, rural flight of young men, agricultural revenues diminishing, no capital resources for investment, and limited water resources. For each idea: inputs, extension approaches, owner of the activity and expected outputs had to be listed.

3. Amsatou Niang. Agroforestry and Village Extension Problems. Mr. Niang is the former director of PROBOVIL, a village forestry project in the Louga region. He discussed pitfalls in extension approaches to rural forestry with examples from his project. Discussion focused on land tenure problems, forest resource laws, and communal vs. individual plantings.

Thursday, February 22

1. Linehan. Small group exercise, planning a training program. Participants were asked to plan a two-week training program based on the CARE manual for extension agents. They had to choose which parts of the program should be emphasized (communication methods, agroforestry diagnosis or technical topics) and justify their choices.

2. Benjamin Diouf. Rural Sociology. Mr. Diouf is a sociologist working for SODEVA, the parastatal rural development agency for the Peanut Basin. He led a discussion on village social organization as it affects development activities.

3. Benjamin Diouf. Training Methods. Discussed approaches to communication and adult education.

4. Linehan. Field Trip Preparation. Discussed CARE methodology of guided observation, what to look for during the field trip.

Friday, February 23

Field trip to PREVINOBA (Reforestation Project for the Northwest Peanut Basin) in Thies. Ibrahim Gueye, the PREVINOBA project director, discussed the project's philosophy and objectives. The extension approach used was described. Participants visited one of the project villages, and were able to discuss with villagers. One of the project's seedling nurseries was also visited.

Monday, February 26

1. Ibrahim Gueye. Agroforestry Diagnosis and Design. Description of the ICRAF method described in the CARE manual.

2. Linehan and Gueye. Small group exercise on Agroforestry Diagnosis and Design. In each group one participant played the role of a villager. The other group members went through a diagnosis questionnaire with him. They then analyzed the results based on the ICRAF methodology, including diagramming constraints on the system. Possible solutions to constraints were proposed. The groups then reported their results to the entire class.

Tuesday, February 27

1. Jean Pol Neme. Agroforestry and Soil Conservation. Cours de Conservation des Eaux et des Sols. This was a discussion of soil erosion dynamics and conservation methods.

2. Linehan. Agroforestry plantation types. Participants broke into small groups, each of which was assigned several types of agroforestry plantings as classified by Weber. They were to briefly define each group, then give two advantages and disadvantages of each, using specific examples where possible.

Wednesday, February 28

1. Pape Sall. Seed Selection for reforestation and Plant/Soil moisture relationships. Lecture based on Mr. Sall's research at ISRA/DRPF (Direction de Recherche sur la Production Forestière).

2. Djibril Cisse. Wind Erosion and Windbreaks. Les Brise-Vent au Senegal, Les Techniques D'Implantation Methodes et Outils de Sensibilisation Programme de Formation by Guinaudeau. Lecture with participant discussion.

3. Linehan. Information Resources. Discussion of possible sources for technical and training information in the Sahel region and worldwide.

Thursday, March 1

1. Field Trip Visit to PRECOBA, based in Fatick. One of the first village reforestation projects in Senegal.

2. Field Trip Visit to PASA, the Senegalese-German cashew project based in Sokone.

Friday, March 2

Participants filled out workshop evaluations and received diplomas.

P R O G R A M M E

Première Semaine : LA VULGARISATION

LUNDI 19 FEVRIER 1990

Après-Midi :

- 16 H 00 - Ouverture
- Présentation des stagiaires

MARDI 20 FEVRIER 1990

Matin :

- 8 H 00 - Introduction à l'animation et à la vulgarisation / discussions
- 9 H 30 - Le rôle de l'animateur / discussions
- 10 H 15 - Pause
- 10 H 30 - Les méthodes de vulgarisation

Après-Midi

- 15 H 00 - Vue globale du pays
- 16 H 15 - Pause
- 16 H 30 - Introduction à l'Agroforesterie : principes, philosophie de l'utilisation des terres

MERCREDI 21 FEVRIER 1990

Matin :

- 8 H 00 - Exercices d'animation : Travail de groupe
- 9 H 30 Pause
- 10 H 00 - Exposé des travaux de groupe
- 11 H 00 - Analyse critique des exposés et synthèse

Après-Midi

- 15 H 00 - La Vulgarisation et les problèmes villageois
- 16 H 15 - Pause
- 16 H 30 - La communication en vulgarisation (selon le manuel CARE)

JEUDI 22 FEVRIER 1990

Matin :

- 8 H 00 - Le régime foncier et le code forestier : historique - évolution
- 10 H 15 - Pause
- 10 H 30 - La Sociologie villageoise

Après-Midi

- 15 H 00 - Pédagogie du Formateur
- 16 H 15 - Pause
- 16 H 30 - Préparation de la sortie sur le terrain les critères d'analyse et d'observation

VENDREDI 23 FEVRIER 1990

Matin :

- 7 H 00 - Visite du Projet de Reboisement Villageois
dans le Nord du Bassin Arachidier
(PREVINORA) - IHIES

SAMEDI 24 FEVRIER 1990

Matin :

- 9 H 00 - Discussion sur la tournée
10 H 30 - Synthèse de la première semaine

Deuxième semaine : L'AGROFORESTERIE ET LA GESTION DES
RESSOURCES NATURELLES

LUNDI 26 FEVRIER 1990

Matin :

8 H 00 Diagnostic des systèmes agroforestiers

Après-Midi

15 H 00 Diagnostic des systèmes agroforestiers
(Exercices pratiques)

MARDI 27 FEVRIER 1990

Matin :

8 H 00 - L'Agroforesterie et la Conservation des
Eaux et des Sols

Après-Midi

15 H 00 - Les techniques de l'Agroforesterie :
cultures intercalaires, cultures en
couloir, les arbres fruitiers, le
compostage, d'autres types de plantation

MERCREDI 28 FEVRIER 1990

Matin :

8 H 00 - Technique de l'agroforesterie :
Les brise-vents

9 H 00 - Les operations forestières : choix
des especes, les sources de semences

10 H 15 - Pause

10 H 30 - Le planning annuel des travaux :
(exercices pratiques)

Après-Midi

- 15 H 00 Les besoins en eau
- 16 H 00 - La protection des plantes contre le vent et les animaux
- 17 H 00 Les ressources en information

JEUDI 01 MARS 1990

Matin :

- 7 H 30 - Visite du Projet de Reboisement Communautaire dans le Bassin Arachidier (PRECOBA).

Après-Midi

- 14 H 00 Visite du Projet Anacardier Sénégal-Allemand (PASA).

VENDREDI 02 MARS 1990

Matin :

- 8 H 00 Synthèse de la deuxième semaine
- 10 H 00 - Evaluation du séminaire
- Clôture

LISTE DES PARTICIPANTS AU SEMINAIRE SUR :
LA GESTION DES RESSOURCES NATURELLES

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	Mr Papa Meïssa DIOP	Assistant au Directeur du Centre de Recyclage Permanent pour la Promo- tion des Programmes Forestiers (SEN/86/008) BP 03 KAOLACK (SENEGAL)
	Mr Mahmoudane FALL	I.T.E.F. Chef de Secteur Forestier Nioro du Rip (SENEGAL)
	Mr Magatte KAIRE	I.T.E.F. ISRA/Secteur Centre Sud/ KAOLACK BP 199 (SENEGAL)
	Ms Hester PARKER	S/C Eaux et Forêts BP 14 OUSSOUYE (SENEGAL)
	Mme Voré SECK	RODALE INTERNATIONAL BP A 237 TI IES Responsable Communications Tel : 51.10.28 (SENEGAL)

LISTE DES PARTICIPANTS AU SEMINAIRE SUR
LA GESTION DES RESSOURCES NATURELLES

PAYS	PRENOMS-NOMS	FONCTIONS - ADRESSES
GUINNEE	Mr Mamoudou CONDE	Ingénieur des Eaux et Forêts, Directeur Préfectoral des Eaux et Forêts KISSIDOUGOU - GUINEE
	Mr Samba Donking SYLLA	Chef de Division, Ingénieur des Eaux et Forêts à la Direction Na- tionale des Forêts et Chasses

PAYS	PRENOMS-NOMS	FONCTIONS - ADRESSES
MALI	Mr Edmond DEMBELE	Chercheur. AMRAD BP 1647 - BAMAKO Tel (223) 22.85.21 DMAFLA BP 62 BAMAKO Tel (223) 22.24.50
	Mr Amadou DIALLO	AMRAD BP 1647 BAMAKO Tel (223) 22.85.21 ou Direction Nationale Elevage BP 267 BAMAKO Tel (223) 22.20.22.
	Mr Gaoussou DIAKITE	AMRAD BP 1647 BAMAKO Tel : (223) 22.85.21. ou Visages d'Afrique BP 2473 Tel :(223) 22.33.18.
	Mme Diane Bassa DICKO	Chef de la Section Promotion Femi- nine, Direction Nationale de l'Action Coopérative BAMAKO (MALI) BP 86 Tel : (223) 22.53.85
	Mr Boubacar KANTE	Chef de Division Vulgarisation O.H.V. BP 178 BAMAKO (MALI)
	Mr Mamary Tidiani KOKAINA	Chef de Division Programme/Vulga- risation, Direction Régionale Eaux et Forêts. MOPTI Tel: 43.03.24 BP 91 (MALI)
	Mr Bather KONE	USAID/BAMAKO BP 34 Tel : (223) 22.36.02 V.R.P., CO-MANAGER MOPTI Tel : (223) 43.03.24
	Mme Kadidia Aliou TRAORE	Groupe Action Nord-Sud BP 9052 BAMAKO Tel : (223) 22.44.46

ANNEX 5: Niger Local Workshop

The Niger local workshop was held from March 12 to March 23 at a rural development training school about 20 kilometers from Niamey. The workshop program and name and address list of the participants is contained at the end of this annex.

PARTICIPANTS

Twenty-two people participated in the Niger workshop. Six of these were women. Ten worked for government agencies while the rest were with PVOs. One participant was from Mali. Virtually all the participants were at the agent technique (extension worker) level.

WORKSHOP LOCAL SUPPORT

Logistical and organizational support was provided by CARE International. The training itself was held at the Institut Pratique de Developpement Rurale (IPDR) in Kollo. Facilities at the center were very good. The classroom had audio-visual equipment available and a print shop was available on site for photocopying. A bus was also available for field trips. Participants and trainers stayed in dormitories on campus. Nigerien participants in the regional workshop and CARE staff helped find guest speakers for the workshop.

Of the five Nigerien participants in the regional workshop, at least three were present throughout the local workshop, depending on their work requirements at their home agencies. They served as group leaders and facilitators. Their knowledge of local conditions and trainee needs, as well as their ideas for adapting the training, were a valuable contribution to the program.

TOPICS COVERED

The topics covered in the Niger local workshop were:

Monday, March 12

1. Linehan - Participatory exercise - adapted from Module 1 of the CARE manual. Each participant interviewed another to find out their: name, job, work location, organization and personal objective for the workshop. At the end of the allotted time, each participant presented the person he had interviewed.

2. Amoul Kinni, Direction de L'Environnement - Country Situation. Gave a overview of Niger's land management and forest resource policies. He explained constraints on the current system, and gave examples of how forest resources, particularly fuelwood, can be managed in the future.

3. Linehan - Introduction to Agroforestry, Principles and land use philosophy. Based on material in Reforestation of Arid Lands and the CARE manual.

Tuesday, March 13

1. Ibrahim Oumarou, Director of IPDR - History of Agricultural Extension in Niger. Described Niger's approach to agricultural extension from cash crops in colonial times, through centralized training programs with credit in early independence, to current programs. He also described problems facing extension efforts including resource degradation, lack of financial support and loss of personnel.

2. Linehan. Small group exercise comparing participative versus structured village extension techniques. Participants were asked to write down five positive and five negative points of the two approaches. An overall discussion followed each group's report.

3. Linehan. Introduction to CARE Agroforestry Extension Training Manual.

Wednesday, March 14

1. Local trainers. Small group exercise. Three groups were formed--one representing farmers, one representing women wood users, and the last herders. In the situation given, a village of about five thousand people had to decide what to do with a three thousand hectare forêt classée put at their disposal. The members of each group were expected to find alternatives best fulfilling their group's needs and objectives. After each group revealed their choices, a synthesis was made to arrive at a compromise management solution.

2. Aboubacar Issa, Directeur du Département des Recherches Forestières de l'INRAN, Semences forestières et choix des espèces. Described research findings on the proper techniques for selecting seed sources to propagate tree species selected for reforestation or agroforestry plantations.

Thursday, March 15

1. C. Renard, Mahamadou Djibeye and Dr. John Quyen H. Nguyen. On a field visit to ICRISAT Sahelian Center various agroforestry research trials were described. Among these were: 1) provenance trials of *Acacia albida*, 2) windbreak effectiveness of various woody and herbaceous (*Andropogon*) species, and 3) small ruminant grazing effects on windbreaks of various local and introduced tree species.

2. Alio Hamidil, Ingen. Eaux et Forêts, Grands lignes de l'expose sur le regime foncier et le code forestier en evolution. Presentation on land tenure and the forestry laws in Niger, including their past history and future changes.

Friday, March 16

1. Project staff FLUP. Experience d'aménagement de la forêt classée de Guesselbodi by Mani Djika. Field visit to the Guesselbodi Forest to discuss the fuelwood cutting cooperatives and visit the wood market. Cooperative members were not available, so the discussion was held with the Forest Service project staff.

2. Synthesis session to discuss the week's activities.

Monday, March 19

1. Linehan. Agroforestry plantation types. Participants broke into small groups, each of which was assigned several types of agroforestry plantings as classified by Weber. They were to briefly define each type, give some possible tree species, and an example of its application in Niger (if possible).

2. Linehan. Overview of Diagnosis and Design process in agroforestry, as outlined in Module 5 of CARE Manual.

3. Linehan. Guided discussion on information necessary for agroforestry diagnosis. Participants were encouraged to give quantifiable information in each of three categories: biological, socio-economic, and physical; either aspects of the village environment, or available resources. Each type of information was then classified as: essential, useful, or unnecessary. Information necessary for describing an individual household production system was also noted.

Tuesday, March 20

1. Linehan. Village survey simulation. Participants discussed survey methods and the phases of agroforestry diagnosis surveys and village meetings recommended in the CARE Manual. Working in small groups, participants put together a survey to gather information for diagnosis according to the production subsystems as described by Raintree. In each group, one woman and one man played the role of villagers. Each group gave its description of the village before the entire class. Results were then discussed and analyzed.

2. Linehan. Agroforestry tree inventory. Seven species of trees, identified as useful for agroforestry in Niger, were analyzed according to the method described in the CARE Manual. The participants then discussed the results.

3. Linehan. Diagram of production constraints. Following the CARE methodology, participants classified causes of cereal production shortfall in Nigerien village agriculture. Emphasis was placed on finding the root causes of production system problems. Possible agroforestry interventions were discussed to resolve some of the problems.

Wednesday, March 21

1. Zakari Madougou. Windbreaks in the Maggia Valley. Brise-vent de la Maggia/Niger. Described technical aspects of windbreak planting and maintenance in nearly fifteen years of CARE's experience working with villagers. Efforts to create cooperatives to manage harvesting of mature windbreaks on a sustainable rotation were also discussed.

2. Amadou N'Tirgny Maiga. Windbreaks around fields. Brise-vent à la limite des Champs de Culture. Described CARE's experience working with villagers in Tillabery to install windbreaks around privately-owned fields. Explained both technical and socio-economic aspects of introducing them.

3. Field exercise. Participants used tube levels to lay out contour lines along an eroded field with a slight slope. The lines would then be used to construct berms for soil conservation efforts.

4. World Neighbors. Two filmstrips on soil conservation themes were shown. One dealt with how to build and use an A-frame level in soil conservation work in agricultural fields. The other described the importance of planting crops along contour lines to minimize erosion. Both filmstrips seem to have been photographed in Honduras. Although conditions there are very different from Niger, the same techniques are applicable. A french language script was supplied.

Thursday, March 22

1. CARE International. Field trip to CARE projects in Tillabery. The first site was a seedling nursery organized by local women. Each woman works individually on her own plot. There is a loose cooperative, but each person is paid according to her own production. Almost 10,000 seedlings were purchased last year by CARE.

At the second site, participants examined lines of trees planted along drainages leading to the irrigated fields alongside the Niger River. The rows of Prosopis and Eucalyptus serve both as windbreaks and as erosion protection.

2. Mani Djika - Nigerien Forest Service. This visit concentrated on the technical aspects of efforts to manage and reclaim the Guesselbodi Forest. Among the activities examined were: 1) anti-erosion berms and micro-catchments, 2) laying down of straw to promote termite activity and soil enrichment, 3) enrichment plantings, and 4) regeneration of harvested Combretum shrubs.

Friday, March 23

1. program evaluations
2. closing ceremonies and handing out of certificates, presided by the Sous-Prefet of Kollo.

WORKSHOP PROGRAM

PROJET DE GESTION DE RESSOURCES NATURELLES

Stage sur la Vulgarisation de l'Agroforesterie
et de la Gestion de Ressources Naturelles Villageoises

Tenu à L'Institut Pratique de developpement Rural, Kolo, Niger

PROGRAMME

{Heures de Cours: 8:00 - 12:00 et 15:00 - 18:00}

Première Semaine - La Vulgarisation

lundi 12 mars:

9:00 Accueil - Ouverture Officielle - Informations Logistique

10:00 Pause - Cafe

10:30 Exercice de Presentation des Stagiaires

15:00 Vue globale du pays

16:15 Pause

16:30 Introduction à l'agroforesterie - Principes, philosophie de l'utilisation des terres

mardi 13 mars

8:00 L'Histoire et Experiences de la Vulgarisation au Niger

10:15 Pause

10:30 Reflexion sur la vulgarisation - travaux en groupes

15:00 Introduction au Manuel CARE

16:15 Pause

16:30 Exercice d'animation (travail de groupe)

mercredi 14 mars

8:00 Exposees des travaux de groupe

10:15 Pause

10:30 Analyse critique des exposes - synthèse

15:00 Communication en vulgarisation

16:15 Pause

16:30 Semences: Forestiers, choix des espèces

jeudi 15 mars

8:00 Travaux Pratique avec les villageois
10:15 Pause
10:30 Suite Exercise
15:00 Le regime foncier et le code forestier en evolution
16:15 Pause
16:30 Preparation de la tournee - Critères d'observation

vendredi 16 mars

Visite à la Forêt de Gusselbodi avec l'accent sur les cooperatives, l'animation, les revenues etc.

samedi 17 mars

9:00 Discussion sur la tournee Synthèse et evaluation de la première semaine

Deuxième Semaine: L'agroforesterie et la Gestion des Ressources Naturelles

lundi 19 mars

8:00 Diagnostic des systèmes agroforestiers
10:15 Pause
10:30 Suite au diagnostic
15:00 Exercices (3) pratiques sur le diagnostic des systèmes agroforestiers
16:15 Pause
16:30 Suite à l'exercice, discussion

mardi le 20 mars

8:00 Exercices pratiques sur le diagnostic
10:15 Pause
10:30 Exercices suite
15:00 Les techniques de l'agroforesterie: la culture intercalaire, les haies vives, la culture en couloir, les arbres fruitiers, le compostage, d'autres types de plantations agroforestières
16:15 Pause
16:30 Suite

mercredi 21 mars

9:00 les brise-vents

10:15 Pause

10:30 Les travaux de conservation des sols et des eaux, Exercices pratiques

15:00 Exercice en Communication (Manuel CARE)

16:45 Pause

17:00 Les ressources en information

jeudi 22 mars

Visite sur le terrain, ICRISAT

vendredi 23 mars

Visite sur le terrain - Guesselbodi (parties technique), and Tillaberry (Projet CARE)

samedi 24 mars

9:00 La discussion des tournées, la recapitulation du stage, l'évaluation de la deuxième semaine, la clôture du stage

S T A G I A I R E S

- Mr. SEYDOU HA ALIEN
CHEF DE BUREAU SANANNI
Filingué - Niger
- Mr. SALOU KONOU
DDA Tillabery - Niger
Service Départemental Génie-Rural
B.P. 67 - Tél : 71-14-05
- Mme HAKOUDOU née ZARA SOUMANA SEYNI
Aide Encadreur
Projet Care Tillabery (Niger)
B.P 16 - Tél : 71-10-40.
- Mr. HAMIDOU ISSA YLRIMA
Communal Environnement
Matankari (Doutchi) Niger.
- Melle ASIBIT AKOTEYE
SWISSAID
B.P. 175 - Tél : 610-502
Tahoua - Niger.
- Mr. SAMI KAMA
Projet Ceinture Verte
B.P. 578 - Tél : 75-20-57
Nimaey - Niger.
- Mr. KANE DAN BAOU
Service Carc
B.P. 145 - Tél : 410-705
Maradi - Niger
- Mr. MAGAGI ABDOU
IRED
B.P. 12757 - Tél : 75-35-27
Niamey - (Niger)
- Mr. MOHAMED BABY
Vision Mondiale
Ménéka - Mali
- Melle RAMATOU ABDOULAYE
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- Mr. ALI MOUNKAILA
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- Mr. BOUBACAR BINA *AN*
Agriculture
B.P. 42 - Tél : 07
Tessaoua (Niger)
- Melle RABI BAARE
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- Mr. GARBA MAIBORI
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Zinder (Niger)

Mr. AMADOU GOURMEY

DDRA

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Tillabery - Niger

Mr. BOUBACAR AMADOU

APRN

B.P. 12669- Tél: 73-31-23

Niamey - Niger.

Mr. ABDOU GAREBA

APRN

B.P. 12669 - Tél : 73-31-23

Niamey - Niger

Mr. ADAMOU AMADOU

Projet Africare

B.P. 28

Gouré - (Zinder)

MR; ~~SANI MOCHÉ~~

Projet Forestier IDA

B.P. 10496 - Tél 72-31-89

Niamey - Niger.

^{Mme.}
~~Henri~~ MARIAMA GAGA

Projet Africare

B.P. 28

Gouré - (Zinder)

ANNEX 6: Mali Local Workshop

The Mali workshop was held from May 3 to 16, 1990, at the Centre de Formation Pratique Forestière (CFPF) de Tabakoro. The school, located 20 kilometers from Bamako, is the national training center for forest technicians. However, with recent government cutbacks in recruitment to the civil service, the center has begun to offer more retraining programs for agents already in service, and to host special conferences such as this one.

WORKSHOP LOCAL SUPPORT

The workshop was planned and carried out in cooperation with AMRAD, the Association Malien de Recherche-Action pour le Developpement. Two senior members of AMRAD worked full-time on the workshop. Mr. Edmond Dembele planned the day-to-day program and lined up speakers. Mr. Gaoussou Diakite made logistical arrangements at Tabacoro and for the field trips. Overall, AMRAD did an excellent job on the workshop, and should be considered for future training activities.

AMRAD will be producing a Document de Synthèse, or Proceedings, for the entire workshop. Throughout the workshop, AMRAD trainers placed a great emphasis on review sessions, where the participants discussed among themselves their understanding of topics already covered. Several of the participants in the Senegal Regional Workshop led sessions or served as guest speakers.

PARTICIPANTS

Nineteen people, including one woman, participated in the workshop. They came from various PVOs (CARE, AMIPJ, AMRAD, and Save the Children) and the government services (Direction des Eaux et Forêts). Two of the participants were from Burkina Faso. Among the technical disciplines represented were forestry, agronomy, range management, and administration. There were both agent technique and ingenieur level participants.

TOPICS COVERED

The topics covered in the Mali local workshop were:

Thursday May, 3

1. Opening and Welcome by the Executive Secretary of AMRAD, Mr. Mamadou Diallo, and the Director of CFPF, Mr. Akougnon Dolo.

2. Personal introductions by the trainees and training staff.

3. Linehan. Description of training materials provided. Introduction to Agroforestry, Principles and Land Use Philosophy. Based on Material in Reforestation of Arid Lands and the CARE Manual.

4. Mamary Tidiani KOKAINA. Agroforestry activities in Mali's 5th region - Mopti - Pratiques Agroforestières Executees en 5ème Region Sous L'Egide de la DREF/Mopti. Mr. Kokaina was a participant in the Senegal Regional Workshop. He is the director of planning and extension in the Forest Service Regional Office in Mopti. He gave a detailed overview of various agroforestry and soil conservation activities in the region. He described changes in forestry agents' approach to working with villagers from repression to extension and cooperation. In collaboration with outside projects working through the Forest Service, forest agents have better means and more incentive to work with villagers. A lively discussion ensued among the participants concerning the role of the Forest Service and how it must adapt in the future.

Friday, May 4

1. Linehan. Introduction to CARE Agroforestry Extension Manual.

2. Kadidia A. Traore. Ms. Traore was also a participant at the Senegal Regional Workshop. She described the village development and forestry activities of Action Nord-Sud, a Canadian PVO, for whom she is the extension coordinator.

3. Bather Kone (also a Senegal participant). Overview and discussion of agroforestry plantation techniques, based on Weber.

4. Bather Kone. Discussion of extension method approaches in agroforestry. Trainees broke into small groups to develop a definition of extension (2 ideas), and two different approaches to extension with four advantages and disadvantages of each. After each group delivered its results, comparisons were made between structured and participative approaches to extension.

Saturday, May 5

1. Linehan. Overview of Diagnosis and Design process in agroforestry, as outlined in Module 5 of CARE Manual.

2. Linehan. Guided discussion on information necessary for agroforestry diagnosis. Participants were encouraged to give quantifiable information in each of three categories: biological, socio-economic, and physical; either aspects of the village environment, or available resources. Each type of information was then classified as: essential, useful, or unnecessary. Information necessary for describing an individual household production system was also noted.

3. Linehan. Village survey simulation. Participants discussed survey methods and the phases of agroforestry diagnosis surveys and village meetings recommended in the CARE Manual. Working in small groups, participants put together a survey to gather information for diagnosis according to the production subsystems approach as described by Raintree. In each group, one participant played the role of villager. Each group gave its description of the village before the entire class. Results were then discussed and analyzed.

Monday, May 7

1. Renate Holzer, Presentation of the Agro-Ecology project in Tominian, Presentation du Projet Agro-Ecologie dans le Secteur Tominian. This is a village-based agroforestry/soil conservation/land management project executed by D.E.D., the German volunteer service. The project works in collaboration with CMDT, the parastatal development agency for cotton production which is involved in many agricultural extension activities.

2. Edmond Dembele. Preparation for the field trip. Students discussed observational criteria for the upcoming field trip. Groups were assigned particular areas of responsibility for reporting.

Tuesday, May 8

1. Field trip to visit the Agro-Ecology in Bla, Presentation du Projet Agro-Ecologie Dans le Secteur de Bla. Among the project activities visited were: anti-erosion berms, a small dam, protection and pruning of *Acacia albida* seedlings, composting, improved livestock corrals with manure production, and a controlled fallow demonstration. Participants discussed the activities with villagers and the project staff.

Wednesday, May 9

1. Daniel Coulibaly, GRAAP Extension method training, Technique d'animation avec le materiel GRAAP. Mr. Coulibaly is the principal extension trainer for CMDT. GRAAP is an adult education/extension education approach especially designed for use with villagers. The presentation stressed the participatory approach of leading villagers to discover solutions to local problems. Flannel boards are used to illustrate points during discussions. In several in-class exercises the workshop participants learned how to lead meetings and guide discussion. Participants did a role playing exercise using the soil erosion/conservation program. The entire training session took a day and a half.

Thursday, May 10

1. Continuation of the GRAAP training.
2. Daniel Coulibaly. Presentation and discussion of the package of soil conservation techniques used by CMDT in cooperation with village groups.

3. Daniel Coulibaly. Field exercise with tube level. The CFPF has access to a nearby national forest for field exercises and demonstration projects. Participants visited a site where the forestry students have built anti-erosion berms. They learned how to use tube levels and laid out contour lines.

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Friday, May 11

1. M. Kallosy. Presentation on windbreaks - objectives and techniques. Mr. Kallosy is on the staff of the Mali Forest Service and has had much experience implementing windbreak and village reforestation projects.

2. Linehan. Agroforestry tree inventory. Working in groups, participants identified seven species of trees useful for agroforestry. Each was analyzed according to the method described in the CARE Manual. The participants then discussed the results.

3. Akougnon Dolo, Presentation of CFPPF, Activites du Centre de Formation. Mr. Dolo is the director of CFPPF. He described the history and mission of the training center, as well as its plans for future training activities. He led participants on a visit to the school's seedling nursery, and in a help session in nursery management.

Saturday, May 12

1. Edmond Dembele. Obstacles to agroforestry extension. Working in small groups, and then in a general session, participants discussed technical, social, administrative and economic hurdles to agroforestry activities in villages. Possible solutions were explored.

2. Dembele. Synthesis discussion of the field trip to PAE at Bla.

Monday, May 14

1. Field Trip to visit windbreaks and fuelwood plantations of the Complex Sucrier at Siribala. The group also met with the Chef de Cantonnement Forestier de Niono, Mr. Birama Cissoko, to visit individual and community woodlots created under the Projet Forestier de Segou. Discussions were held at the cantonnement office concerning the new agroforestry and village natural resource management objectives of the projects. Problems in marketing eucalyptus poles and wood were also covered.

Tuesday, May 15

1. B. Haidara. Protection of the Environment. Mr. Haidara works in the Malian government agency concerned with PVO activities and is an environmental consultant. He led a general discussion of environmental problems in Mali.

2. Dembele. Synthesis discussion of the field trip to Siribala and Bla.

3. Linehan. Diagram of production constraints. Following the CARE methodology, participants classified causes of the shortage of wood in Malian villages. Emphasis was placed on finding the root causes of production system problems. Possible agroforestry interventions were discussed to resolve some of the problems.

Wednesday, May 16

1. Dembele. Preparation of participant presentations of subjects covered in the workshop for the closing ceremonies.
2. Closing ceremonies, distribution of certificates.

PROGRAMME DU SEMINAIRE ATELIER : LA VULGARISATION
DE L'AGROFORESTERIE ET LA GESTION DES RESSOURCES
NATURELLES

Jeudi 3 mai 1990 :

Matin :

- 07 h 00 : Petit déjeuner
- 09 h 00 : Cérémonie d'ouverture présidée par le Président de l'AMRAD
- 09 h 30 : Présentation des participants : activités, projets
- 10 h 00 : Pause
- 10 h 15 : Introduction à l'agroforesterie : principes, philosophie, concepts. (Peter Linehan)

Après-midi :

- 15 h 00 : Les activités de reboisement dans la 5^e région (K. Traore)
- 17 h 00 : Pause
- 19 h 00 : Dîner

Vendredi 4 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Problématique du diagnostic de l'agroforesterie : les activités du Groupe Nord-Sud à Ké-Macina (Mme TRAORE)
- 10 h 00 : Pause
- 10 h 15 : Les techniques agroforestières (B. Kone)
- 12 h 00 : Déjeuner

Après-midi :

- 15 h 00 : Vulgarisation des techniques agroforestières : les différentes approches (B. KONE)

Samedi 5 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Méthode de diagnostics des problèmes agroforestiers (Peter Linehan)
- 10 h 00 : Pause
- 10 h 15 Travaux des groupes
- 12 h 00 : Déjeuner
- 15 h 00 : Travaux de groupe
- 16 h 30 : Préparation visite terrain
- 18 H 00 : Dîner et départ pour Ségou

Mardi 8 mai 1990 :

- 06 h 30 : Petit déjeuner
- 07 h 00 : Départ pour Bla
- 08 h 00 : Arrivée à Bla - Visite terrain
- 13 h 00 : Déjeuner à Bla
- Retour à Bamako

Mercredi 8 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Synthèse de la visite (Edmond DEMBELE)
- 10 h 00 : Exposé sur les techniques d'animation GRAAP (D. COULIBALY)
- 12 h 00 : Déjeuner

Après-midi :

- 15 h 00 : Travaux de groupe
- 17 h 00 : Fin des travaux de groupe

Jeudi 10 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Exposé sur les techniques d'animation GRAAP - Suite
(D. COULIBALY)
- 10 h 00 : Pause
- 10 h 15 : Exposé sur la conservation des sols (D. COULIBALY)
- 12 h 00 : Déjeuner

Après-midi :

- 15 h 00 : Travaux de groupe sur niveaux à eau
- 17 h 00 : Pause

Vendredi 11 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Exposé sur les brise-vents et les bosquets villageois de
la région de Ségou (B. KALLOSSY)
- 10 h 00 : Pause
- 10 h 15 : Exposé sur les techniques de pépinières (A. Dolo)
- 12 h 00 : Déjeuner

Après-midi :

- 15 h 00 : Exercices manuels CARE sur la communication - Suite
(Peter Lenchan)

Samedi 12 mai 1990 :

- 07 h 00 : Petit déjeuner
- 08 h 00 : Les blocages à l'agroforesterie (Edmond DEMBELE)
travaux de groupe
- 12 h 00 : Déjeuner

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Après-midi :

LIBRE

Dimanche 13 mai 1990 :

Après-midi :

14 h 00 : Départ pour Niono (Visite du projet brise-vents et reconstitution de la fertilité des canaux)

Lundi 14 mai 1990 :

07 h 00 : Visite des périmètres

Après-midi : Retour à Bamako

Mardi 15 mai 1990 :

07 h 00 : Petit déjeuner

08 h 00 : Synthèse visite des périmètres de Niono

10 h 00 : Pause

10 h 15 : La protection de l'environnement (B. HAIDARA)

12 h 00 : Pause

Après-midi :

15 h 00 : Evaluation du séminaire

Mercredi 16 mai 1990 :

07 h 00 : Petit déjeuner

08 h 00 : Préparation de la séance de restitution

10 h 00 : Pause

10 h 15 : Clôture

12 h 00 : Déjeuner.

Participant list not supplied by AMRAD at the time of this writing.

TOPICS COVERED

The topics covered in the Senegal local workshop were:

Monday, May 28

1. Opening ceremony presided by the Chef de Secteur Eaux et Forêts de Mbour, Mr. Pape Diop.
2. Session leader - Linehan. Session title: Introductory Exercise. In an ice-breaker exercise suggested by the CARE Manual, each participant interviewed another he did not know. At the end of the session each person presented the person he had interviewed including name, organization, professional training, and job.
3. Linehan. Introduction of Care Manual and other training materials including training approach used.
4. Linehan. Participants were divided into four groups. Each one created a list of five main training objectives they expected from the workshop. Each group presented its results.
5. Ndiogou Gueye. Senegal National Forestry Policy. Document used: Politique Nationale de Reboisement (by Ibrahim Gueye). Mr. Gueye is the Chef de Division de Reboisement for the Senegal Forest Service. He gave an overview of Senegalese environmental problems, particularly desertification and deforestation, and described national policies to remedy the situation.

Tuesday, May 29

1. Guinea Environmental Situation. The Guinean participants, led by Iliass Diallo, gave a brief overview of the environmental zones of Guinea and the environmental problems they currently face.
2. Ousmane Ba. Communication Techniques for Rural Animation. Mr. Ba was a participant in the Senegal Regional Workshop. Using material from Module 4 of the Care Manual, Ba led a discussion on communication techniques. In small groups, participants developed ideas on how an extension agent should present himself in the village. Also, they compared the advantages and disadvantages of a structured versus a participatory approach in village extension work.
3. Mamadou Diaw. Introduction to Agroforestry. Mr. Diaw is a forestry advisor to the Senegal Reforestation Project. He has led several training sessions on this subject using material from Module 2 of the Care Manual, which the SRP has adapted. He used the same participatory approach to help the participants work out a definition of agroforestry and the components of agroforestry activities.

Wednesday, May 30

1. Mamadou Lamine Bodian. Practical Village Animation Techniques. Mr. Bodian was a participant in the Senegal Regional Workshop. He has also been a trainer for the Senegal Reforestation Project in animation. He led a discussion on extension techniques for village workers, including the need to identify and work with various social groups in the village. Participants simulated a village animation session. They divided into three groups, one each representing men, women and youth. Each group discussed three questions: a. What changes have occurred in our environment? b. What problems have these changes caused? c. What solutions do you think are possible to remedy the situation?

Following small group discussion, representatives of each group reported back to the assembled "villagers".

2. Magatte Kaire. Overview of tree seedling nursery and seed collection techniques. Mr. Kaire is a research assistant for ISRA/DRPF. His talk was an overview and discussion of problems encountered in operating a reforestation seedling nursery, from seed collection to predators.

Thursday, May 31

1. Pape Meissa Diop. Diagnostics in Agroforestry. Mr. Diop is assistant to the director for the Senegal National Forestry Training Center. He was a participant in the Regional Workshop, and has been a trainer for the Senegal Reforestation Workshop. Using material from Module 5 of the CARE Manual, he led discussions of Agroforestry Diagnosis to analyse production systems in villages in terms of meeting essential needs. Survey and village meeting techniques were also discussed. Participants learned to evaluate the existing tree resources in a village. Causal diagrams were also covered.

In a small groups exercise, participants were to develop an agroforestry diagnosis and causal diagrams in each of four different regions: the Peanut Basin of Senegal, the Podor area of northern Senegal, the Fouta Djallon highlands of Guinea, and the northern plains of Guinea.

Friday, June 1

1. Amsatou Niang. Roadblocks to Agroforestry. Mr. Niang is the former director of PROBOVIL, a village forestry project in the Louga region of northern Senegal. He is currently the head of monitoring and evaluation of forestry projects for the Senegal Forest Service. He discussed pitfalls in extension approaches to rural forestry and agroforestry with examples from his project. Discussion on land tenure problems, forest resource, and communal vs. individual plantings.

2. Linehan. Design of Agroforestry Interventions. Using material from Module 6 of the CARE Manual, the elements of designing agroforestry solutions to village resource problems were discussed. A participatory approach, in partnership with small farmers, was emphasized. This section builds on the ideas learned in the diagnosis section.

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Using the same groups and regions as for the diagnosis exercise, participants developed three agroforestry interventions for their socio-economic areas.

Monday, June 4

1. Linehan. Field exercises in Soil Conservation. Using the tube level, participants learned how to lay out contour lines as a preliminary to constructing anti-erosion berms.

2. The Guinean participants presented a slide show from the *Amenagement Integre de Massif du Fouta Djallon* project concerning soil erosion and environmental problems in the Fouta Djallon highlands. Extension methods used and some possible solutions were also discussed.

3. Linehan. Field trip preparation. Participants discussed observation criteria for the two field trips. Four groups were assigned responsibility for gathering information in the following areas: project objectives and results; project administration, organization and relations with other agencies; technical approaches used; and extension and communication methods used.

Tuesday, June 5

1. Field trip to PREVINOBA (Reforestation Project for the Northwest Peanut Basin) in Thiès. Mr. Ndiaye, the assistant head of the silviculture division of PREVINOBA, discussed the project's philosophy and objectives. The extension approach used (GRAAP) was described by Arjen Hettema, an FAO extension expert. Participants visited the central nursery in Meaouane, and one of the project villages, Thialène. They were able to discuss the project activities and environmental concerns with villagers.

Wednesday, June 6

1. Amadou Diop, Jean-Marie Diop, and Seydou Dieme. Field trip to Tatène Serere. In a joint effort, Rodale International and SODEVA have been working with villagers to slow down erosion in the steeply-sloped valley. Stressing self-reliance rather than material aid used in past projects, the villagers decided to construct anti-erosion berms using rocks along the upper slopes. Last year 550 meters of rock lines were constructed. Farmers were impressed with the reduction of erosion encountered even in the first year. Work is continuing this year. A tree seedling nursery has been established to provide trees for reforesting the reclaimed areas, that hadn't been under cultivation before. The only outside inputs were a flatbed truck and gas from SODEVA to move the heavier rocks. All the labor was local. Technical advice and follow-up were provided by agents of SODEVA and Rodale.

2. Synthesis meeting to analyse and discuss the field trips.

Thursday, June 7

1. Jean Pol Neme. Agroforestry and Soil Conservation. Cours de Conservation des Eaux et des Sols - Procèdes de Terrassement. This was a discussion of soil erosion dynamics and conservation methods.

2. Djibril Cisse. Wind Erosion and Windbreaks. Cours de Conservation des eaux et des Sols - Tome 5: Erosion Eolienne. Lecture with participant discussion on wind erosion problems and windbreak design and construction.

3. Closing Ceremonies. Distribution of Certificates.

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WORKSHOP PROGRAM

PROJET DE GESTION DE RESSOURCES NATURELLES

Stage sur la Vulgarisation de l'agroforesterie et de la Gestion de Ressources Naturelles Villageoises

{Heures de Cours: 8:00 - 12:00 et 15:00 - 17:30}

lundi 28 mai

1. Ouverture (9:00)
2. Presentation des stagiaires.
3. Introduction au Manuel CARE et autres materiels pedagogiques.
4. Politique nationale de reboisement de Senegal
5. Travaux de groupes sur les besoins en formation.

mardi, 29 mai

1. Introduction aux techniques de l'agroforesterie.
2. Techniques de communication en vulgarisation.

mercredi, 30 mai

1. Differentes approches à l'animation
2. Exercices sur l'animation (CARE/GRAAP)
3. Expose sur les semences forestières et techniques de pepinières.

jeudi, 31 mai

1. Diagnostic de l'agroforesterie
2. Travaux de groupes.

vendredi, 1 juin

1. Blocages de l'agroforesterie
2. Conception en agroforesterie.

lundi, 4 juin

1. Conception en agroforesterie (suite).
2. Exercices pratiques en conservation des sols avec le niveau à l'eau
3. Preparation des tournées.

mardi, 5 juin

1. Visite sur le terrain, PREVINOBA, Thiès.

mercredi, 6 juin

1. Visite sur le terrain, réalisations en agroforesterie et conservations des sols.
Rodale/SODEVA.

2. Synthèse des visites.

jeudi, 7 juin

1. Exposé sur l'érosion éolienne, brise-vents.
2. Exposé sur l'érosion hydrique.
3. Synthèse du stage.
4. Clôture, remise de certificats.

Participants at the Senegal local workshop

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