

**KENYA/JAPAN**



**Social Forestry Training Project**

**PROCEEDING**

**OF**

**5<sup>TH</sup> FIELD SEMINAR**

**HELD AT**

**NDOOA LOCATION  
MUTITU DIVISION  
KITUI DISTRICT**

**27<sup>TH</sup> FEBRUARY, 1997**

Compiled & edited by

**Florah Mwawughanga  
Hiromi Yamauchi**

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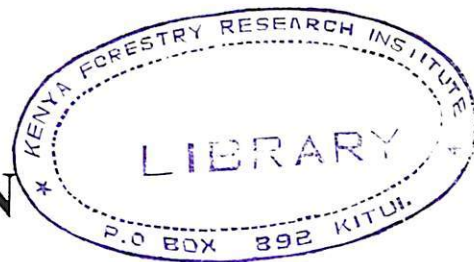
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## 1. Introduction

Field seminars were introduced in 1993 to supplement training activities by providing a greater opportunity at any one time given to those who are willing to acquire simple practical knowledge on Social Forestry. This is because the facilities in the Training Centre are limited, accommodating only 30 participants per time. Also chance is provided to those who have a greater workload at home and would find it difficult to spend two weeks at the Centre, but would not find it a problem to spend a day out of their daily activities to attend the seminar. Those who do not meet the criteria on language also benefit from this event, those who also have a problem in getting fare to attend the course also benefit from the event because it does not involve any cost and is within easy reach.

This year the event took place at Ndooa in Mutitu division in Kitui district. The event took place on 27<sup>th</sup> February 1997. This is the 5<sup>th</sup> Field Day Seminar since the inception of such events in 1993. The 1<sup>st</sup> one was held at Mathima (Kitui) in 1993, the 2<sup>nd</sup> at Katse (Mwingi) in 1994, the 3<sup>rd</sup> at Kanyangi (Kitui) in 1995, the 4<sup>th</sup> at Thitani (Mwingi) in 1996 and the 5<sup>th</sup> in Ndooa in Kitui district.

The objective of the field seminar is to train a greater number of participants on simple and basic practical knowledge and techniques in the location, out of the Traininh Centre and promote Social Forestry Activities in semi-arid lands as a whole.

## 2. Location

### Preliminary Arrangements

The initial step was on the decision concerning the division to be selected and it was agreed unanimously by the training team that Mututi was the place. The second task was to identity the area that would be suitable for the event. Thus a trip was made and different sites visited. Zombe Polytechnic, Zombe Primary, Zombe Chief's Camp and Ndooa Chief's Camp were visited and each of the sites assessed on various factors such as tree cover for shade, slope of the area, storage facilities, security room for exhibitions, facilities such as toilets, accommodation among others. After the unnecessary consideration, after the visit, Ndooa Chief's Camp was selected as the most suitable.

The area borders are Garrisa to the East, Mutomo division to the South Kitui to the South West and Mwingi to the North. It is situated about 80Km from Kitui town.

The climate of the area is hot and dry during most times of the year, with the exception of the two rainy seasons. The vegetation comprises mainly

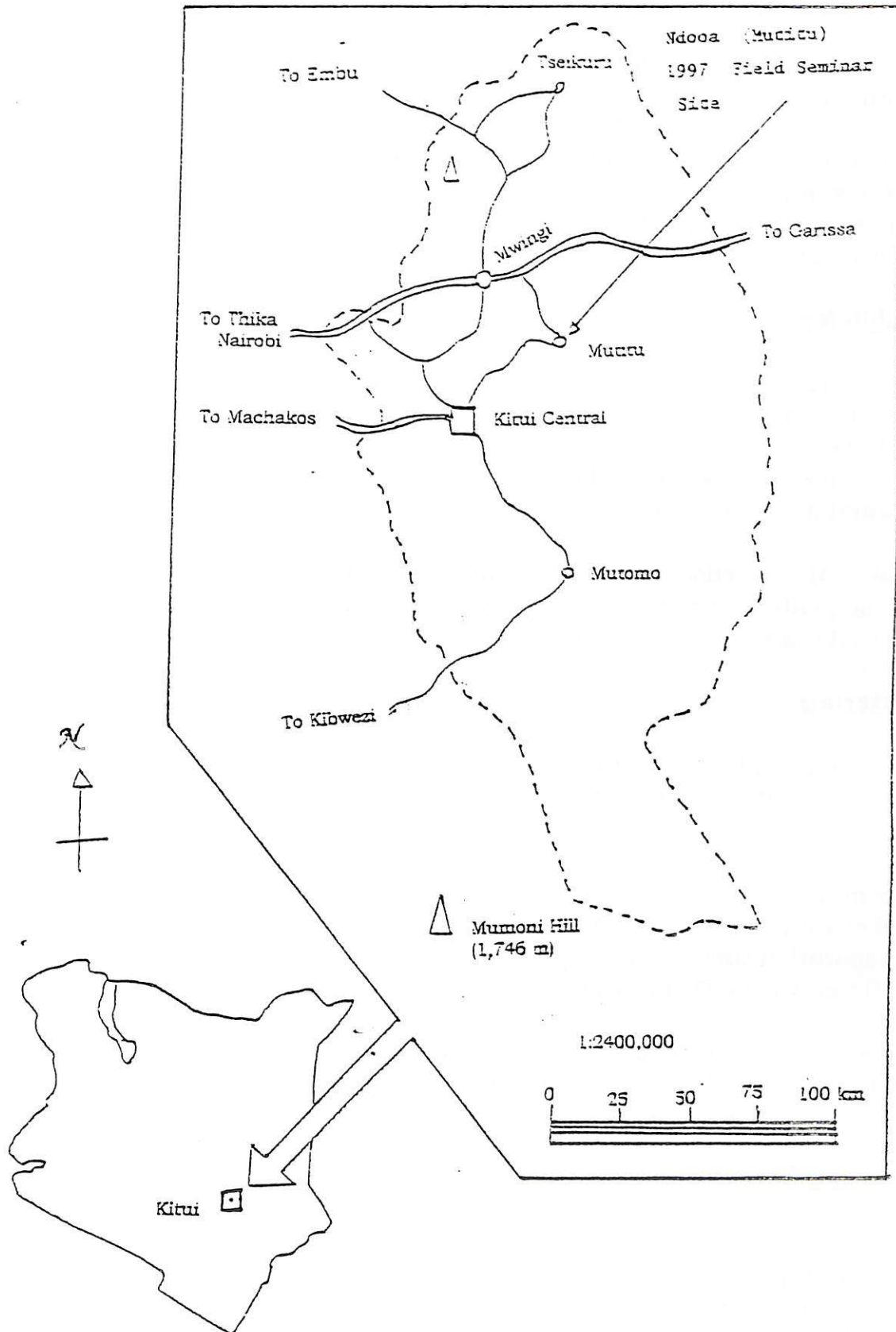


drought resistant trees such as indigenous Acacias, Comphora, Balanaites, Ephorbia and others both natural and planted.

The Chief's Camp is about 81Km from Kitui town and about 30Km from Zombe Market Centre.

See the Map on the next page.

Figure I: Location of Field Seminar Site



### 3. Date

The date decided upon for the event was 27<sup>th</sup> February 1997. This was decided upon after considering the following factors:

- i) It was not to coincide with a market day to avoid divergence of attendance.
- ii) It was not likely to fall on a rainy day since it was during the dry season. Also at this time of the year people would not be very busy in their farms.
- iii) It was not to coincide with any other event that would divulge the attendance.

### 4. Publicity

A lot of publicity and propaganda was required for the success of such an event. This was done mainly by use of advertisement posters which were distributed by the locational chief at various strategic points. Information on the same was also passed over to the Divisional Forest Officer and the Divisional Agricultural Officer.

A total of 40 advertisement posters was issued and distributed by the Forest Extension Officer, Social Services Officer, the Chief, the Agricultural Officer and the Headteachers of Schools.

### 5. Materials

Preparations and equipment was based on the approximate number of participants expected to attend of 600 people, farmers, teachers, pupils/students and other interested parties. This was arrived at by the organizers with the view that the number was too high during the previous field seminar which made it a bit difficult to handle. A total of 707 people attended with 12 schools participated. The seminar went on smooth from the preparation time to the end of the event. The event was closed officially at 4.00p.m. by the D.O Mutito.

A bus was used to transport the organizers to and from Kitui and also transport the students, pupils, teachers and farmers who attended from far. A pick-up was used to ferry some seedlings and also for local running at Ndooa during the preparations.

A lorry was used to ferry materials to the preparation site and also transport some of the attendants. A mini-bus was used to transport those who were doing the preparation and those doing the reception. The water tanker was used to transport water for use during the preparation for the event and during the event.

## 6. Arrangement Itinerary

The arrangements were done as shown in the table below. Table to be copied from the resource person nomination file.

Itinerary arrangement

Date	Remaining Days	Item	Contents
18/12/96	70	1 <sup>st</sup> Contact, Ndooa	Meeting with Ndooa Locational Chief
6/02/97	21	2 <sup>nd</sup> Contact, Ndooa	<ul style="list-style-type: none"><li>• Meeting with the relevant persons to hand over letters &amp; posters.</li><li>• Meet Chief, D.O, D.A.E.O, Forester, Social Development Officer.</li><li>• Confirmation of Site and accommodation.</li></ul>
11/02/97	16	Preparatory Meeting	<ul style="list-style-type: none"><li>• Discussion between Organizers &amp; presenters</li></ul>
20/02/97	7	Preparatory Meeting	<ul style="list-style-type: none"><li>• Discussion between Organizers &amp; presenters</li></ul>
24/02/97	3	Last Confirmation	<ul style="list-style-type: none"><li>• Last check of materials, transport means &amp; allowance</li></ul>
25/02/97	2	Site preparation	<ul style="list-style-type: none"><li>• All presenters travel to Ndooa</li><li>• Site preparation</li></ul>
26/02/97	1	Site preparation	* Site preparation
27/02/97	0	Field Seminar	* Field Seminar Day

## 7. Venue Choice and Layout

Ndooa was selected after meeting a set of criteria. The area had sufficient space for displays and presentation. There were plenty of trees that provided enough shade for those who were making presentations and attendants since the event took place during one of the hottest times of the year. There was sufficient security that was provided by the Administration Police working at the Chief's Camp. There was enough room for the storage of preparation materials and equipment. There was also enough accommodation in the market nearby. In addition, the area can be termed as being one of the remotest places within Kitui.

The seminar presentations were arranged under the shade, the session area being bound with ropes from the point of registration to the exit. See the layout map.

## 8. Implementation

Site preparation for the event started on 25<sup>th</sup> February 1997 and ended on 26<sup>th</sup> February 1997. By the end of the 2<sup>nd</sup> day all the preparations were complete. Thus by 27<sup>th</sup> morning all the organizers were ready to receive the attendants who started arriving at 9.30a.m. The attendants were allowed in groups i.e. farmers separately in groups and teachers and their students/pupils separately in groups. The groups were allowed in according to their time of arrival, those arriving earlier getting in first. Presentation time was short at first and the attendants complained thus they were allowed more time.

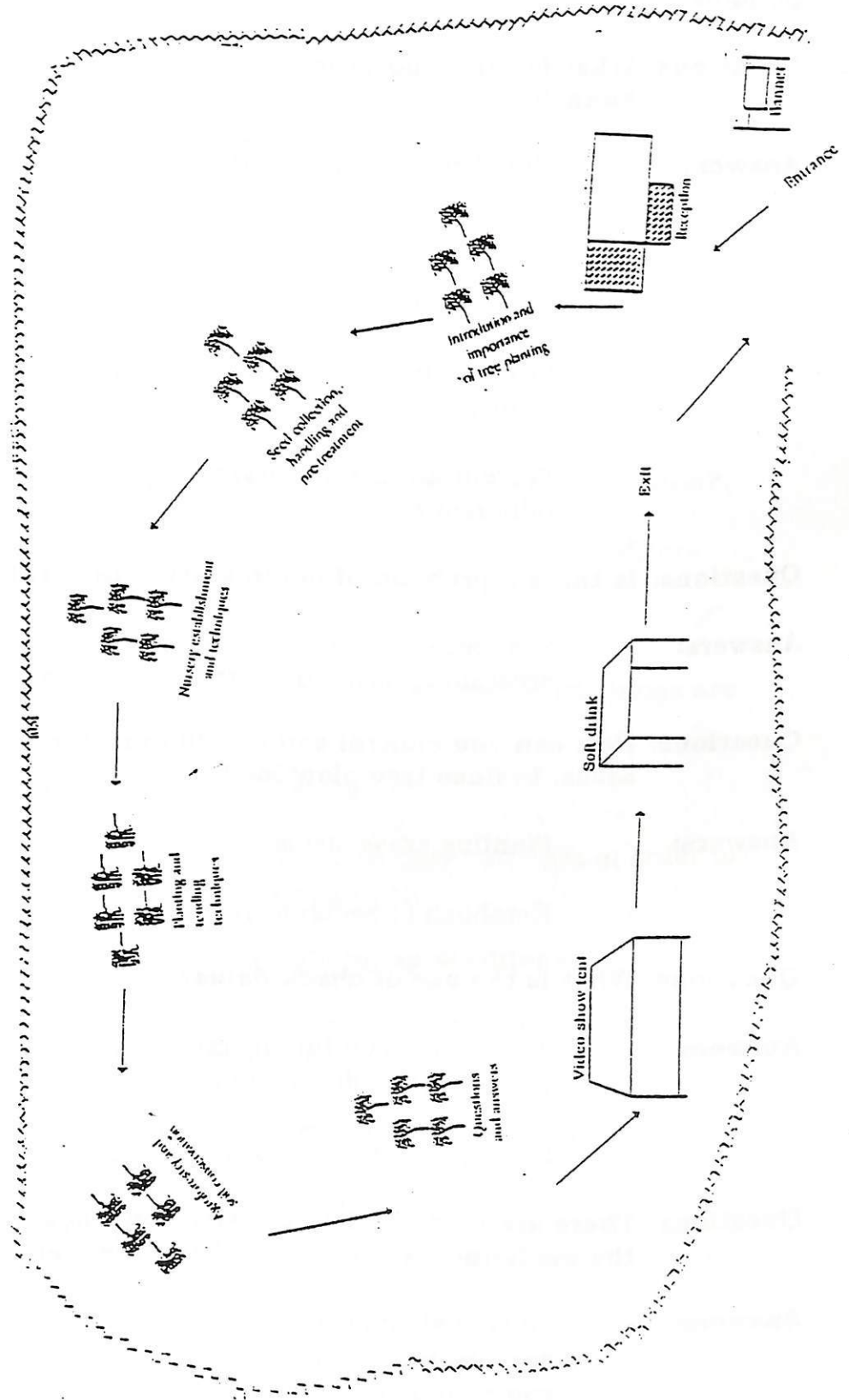
Participants entered through the session in the following order:-

- i) Registration
- ii) Introduction and importance of tree planting
- iii) Simple seed collection and pre-treatment techniques
- iv) Nursery establishment and techniques
- v) Planting and tending techniques
- vi) Agroforestry techniques and soil conservation
- vii) Video show
- viii) Quencher

Presentation ended at 3.30p.m. the D.O Mutitu closed the event officially at 4.30p.m. by the end of the day a total of 707 attendants had gone through the presentation.

# Venue layout

## VENUE LAYOUT



## **9. QUESTIONS AND ANSWERS**

### **Schools.**

**Questions: What is the importance of planting trees along river banks?**

- Answers:**
- Stabilize the banks and prevents soil erosion
  - Increase the production of wood production
  - Avoid siltation and prevents decrease of water level
  - Provide shade to hinder water and prevent more evaporation
  - Prevent water infiltration (ficus balanites - kills bilharzia parasites in water) fruits and roots

**Questions: Is there a problem of deforestation in Kitui?.**

- Answers:**
- Yes, because of clearing for charcoal burning, creation of farmland without replacement through trees

**Questions: How can you control soil erosion on sloppy areas, besides tree planting?.**

- Answers:**
- Planting grass strips
  - Establish of bench terraces

**Questions: What is the use of check dams?.**

- Answers:**
- To slow erosion rate by reducing rain water speed, this control gully erosion
  - Store rain water

**Questions: There are medicinal trees, why don't hospitals offer the medicines in fresh form from the trees?.**

- Answers:**
- Most medicines are derived from trees, and original compound, this has helped in manufacturing synthetic compounds to manufacture conventional medicines
  - Also can be obtained as herbal concoction

**Questions: There are two major problems which affect tree planting i.e.**

(i) Termites

(ii) Some areas are too dry to support tree survival

**Questions: How can these problems be overcome?.**

- Answers:**
- A bit difficult, but there are local materials of controlling termites i.e.
  - Tobacco, neem and other extracts, but a strong healthy tree is less liable to be attacked by termites
  - Use solutions of tobacco, neem leaves

**Questions: How is the nomination for training of teachers done?.**

- Answers:**
- It is done through the District Education Officers
  - The selection time are too brief
  - Follow-up in schools to see whether their things are being implemented

**Questions: Why do we prevent soil erosion?.**

- Answers:**
- To conserve the top soil (fertile) nutrients in order to sustain healthy plant growth

**Questions: What is the need of hardening up seedlings?.**

- Answers:**
- To prepare them to cope up with more harsh conditions in the field

**Questions: Is it possible for one to be assisted materially to implement what has been learnt today?.**

- Answers:**
- Not very possible
  - Provide some school with seeds
  - Opportunity to train (teachers

**Questions: What dosage of neem should one take for a particular ailment?.**



1 glass, 3 times a day for 5 days.

**Questions: Can the project supply schools with seedlings?.**

- Answers:**
- Yes, during the planting season, there is free distributions and you are welcome to select the varieties you want
  - You can acquire from us on request, if the species is not found here, where you can collect on your own.

**Questions: How can one tell whether a certain tree will do well in certain soil?.**

- Answers:**
- Judging from where the seed was obtained, it will be easy to know where the tree can grow best and at what conditions, (through soil comparison)

**Questions: What is Agroforestry?.**

- Answers:**
- Raising of trees, food crops and animals on the same piece of land or in sequence

**Questions: When harvesting ones tree, does one need to fell it completely?.**

- Answers:**
- You can fell if you want for building poles, for fuel wood, out cut to have coppicing, it depends on what product you want

**Questions: What will happen to trees that were planted by parents on their land which will later be sub-divided by their children, should the tree be felled?.**

- Answers:**
- Cut only if what you will plant yields, more or cut selectively, to create space for other crops

**Questions: When trees are planted far from the homesteads and they are faced with the danger of being destroyed by wild animals, what should one do?.**

**Answers:** - Great protective spot fence when the trees are young

**Questions:** Can one establish a nursery out of mango seeds?.

**Answers:** - Yes, it is possible and one is more sure of the seedlings survival after planting due to less shock

**Questions:** After making terraces and planting grass, is one supposed to renew the terraces?.

**Answers:** - Grass stabilizes the soil and final forms a bench terrace due to soil collection. You only need to maintain the edges.

**Questions:** How does sand stop water from evaporation?.

**Answers:** By cutting off capillary continuation between the deep layers and the surface, due to presence of more air space.

### Farmers

**Questions:** The main problems I experience in tree planting is termite and moles, how can this be overcome?.

**Answers:** - Several chemicals, but experience is advisable to use local materials, tobacco, muumbai, pepper, ash

- Keep on trying, don't just do it once

- Seek advice from those who have technical know how in forest

**Questions:** How can one identify the best soils for nursery establishment?.

**Answers:** - Under broad leaved trees which shed plenty of leaves

- Check on a natural undisturbed site

**Questions: Initially people were advised not to plant trees with crops because of shading effects, what is happening now that people are being advised to plant trees with crops?.**

**Answers:** - It depends on the trees to be grown. They should have less shadow, pruned and the humus used.

**Questions: My trees are having die back at some stage, what could be the cause?.**

**Answers:** - It could be termites, poor soils, rock bottom etc.

**Questions: Which trees can thrive well in murrum soils?.**

**Answers:** - Casuarina can do, but you have to try control termites a lot.

**Questions: What is the treatment of citrus trees that are having black aphids and other diseases?.**

**Answers:** Apply a mixture of neem and tobacco liquid once a week.

**Questions: What can one do to overcome the problem of shade when you mix foodcrops and trees?.**

**Answers:** - Can prune  
- Can get aside land for trees only.

**Questions: Can we get seeds from your Centre?.**

**Answers:** - Yes, when available and you request.  
- You can however, collect your own seeds.

**Questions: My avocado tree flowers are falling, what could be the cause?.**

**Answers:** - Spray when it flowers to kill aphids.

**Questions:** What can I do to combat defoliators in the nursery e.g. grass hoppers?.

**Answers:** - Trapping and killing them or spray with chemicals.

### School

**Question:** While using bottle watering, the bottle is situated on one side, doesn't the root system develop only on one side?.

**Answer:** Not really. Due to absorption pressure from the soil, this will likely be distributed all over though unevenly. Thus the roots may develop more on one side, but that does not affect growth much, watering is done to sustain the plant for the dry period, but root supply all the root system, at this time most of the roots are superficial.

**Question:** Can the school be inco-operated in the project activities?.

**Answer:** The project can assist schools that show keen interest on environmental matters. This can be done in terms of materials and technical advice. This can also be done by training teachers from that school.

**Question:** Can you grow trees from other areas in new areas?.

**Answer:** Yes, as long as the requirements found in the other area such as climate, soils, moisture etc. much those in the new area.

## 10. General Remarks

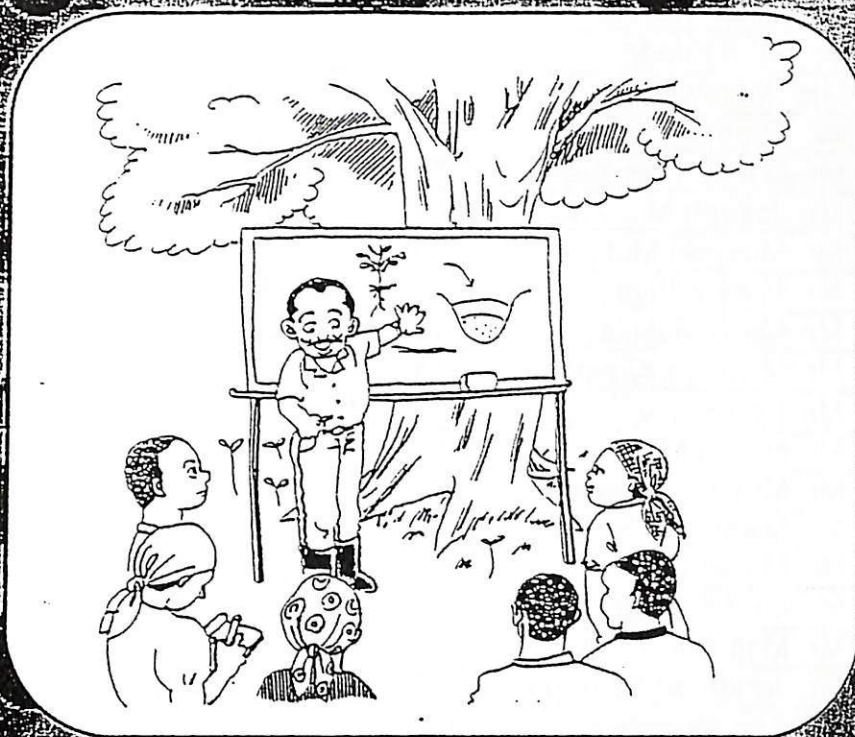
This time the organisers managed to control the number of attendants by ensuring that the number of those who attended mainly from schools were minimized. Thus it was easier to deal with all the attendants and finish in good time unlike during the previous field day where the number was too big and the event ended very late.

After the closing ceremony, all the organisers decided that there would be a postmortem of the event. This was actually done and main opinions proposed in the postmortem are as follows:

- Letters on the display boards should be bigger so that everyone can see easily.
- The advertisement poster should be bigger to attract people.
- It is better that languages used on the display boards are Kiswahili or Kikamba.
- We need to assign somebody to a coordinator who helps attendance shift from a section to a section smoothly.
- If it is possible to distribute seeds to attendance since they wanted to have.
- Two days programme is one option for the next field seminar. On the first day there would be demonstration by the project as usual and on the second day there would have performance by students or baraza in order to make people participate.

I would recommend that next time the groups passing through sessions are controlled in size for effective viewing and transfer of information. This time the groups were uneven, some of them being quite large while others were small.

# Muthenya Wa Kumbana Kwonde Wa Kuvanda Miti



Taliki : 27/2/1997

Saa : Saa Syonthe Kwanzia Saa Itatu Kuvika Kenda

Tukethiwa : Ndooa Chief's Office

**Kitui Regional Training Centre**

KEFRI

Kenya /Japan Social Forestry Training Project

JICA

## Appendix II

**The List of Attendance (Farmers and Others)**

No.	Time	Name	Age	Address	Location	Division
1	9.30a.m	Mr. Samson Wambua	50	38, Mutitu	Mutitu	Mutitu
2	9.30a.m	Mr. Japheth Kaanzo	44	38, Mutitu	"	
3	10.00a.m	Mrs. Tabitha	18	66, Mutitu	"	"
4	10.55a.m	Mr. Malombe Ivyosya	57	16, Mutitu	"	"
5	10.55a.m	Mr. Justus Muthengi	57	87, Mutitu	"	"
6	10.55a.m	Mr. Musyoka Katusya	65	16 Mutitu	"	"
7	10.55a.m	Mr. Kiokio Ngandi	67	96, Mutitu	"	"
8	10.55a.m	Mr. John Kilonzi	38	121 Mutitu	"	"
9	10.55a.m	Mrs. Mutawali	35	25, Mutitu	"	"
10	11.00a.m	Mr. Kitema Mwakavi	56	140 Mutitu	"	"
11	11.00a.m	Mr. Christopher Kieti	53	1, Mutitu	"	"
12	11.00a.m	Mr. Joseph Musyoka	60	55, Mutitu	"	"
13	11.00a.m	Mr. Musyoki Mutia	46	60, Mutitu	Kavutei	Kavutei
14	11.00.a.m	Mr. Mungwithya	55	1, Mutitu	Miambani	Miambani
15	11.05a.m	Mr. Mailu Mukitia	19	9, Muiui	Mutitu	Mutitu
16	11.05a.m	Mr. Mwangi Kiminza	18	229 Mutitu	Kaliku	Kaliku
17	11.05a.m	Mr. Nzili Kaisu	19	60, Mutitu	Muaani	Muaani
18	11.05a.m	Mr. Nzuka Munyoki	18	60, Mutitu	Mutitu	Mutitu
19	11.05a.m	Mr. Musembi Joshua	18	229 Mutitu	Mutitu	"
20	11.05a.m	Mr. Mwanzia Mutemi	18	75, Mutitu	Endau	Endau
21	11.10a.m	Mr. Mutambi Kilonzi	18	344,	Miambani	Miambani
22	11.10a.m	Mr. Muti Kakumi	18	60, Mutitu	Mutitu	Mutitu
23	11.10a.m	Mr. Malusi Mulalya	35	44, Mutitu	"	
24	11.10a.m	Mr. Jonathan Maundu	27	187 Mutomo	Kanziku	Mutomo
25	11.10a.m	Mr. Ben Mutemi	18	22	Mutitu	Mutitu
26	11.10a.m	Mr. John Maseki	45	1, Mutitu	Masesini	"
27	11.10a.m	Mr. Patrick Mutie	32	18, Mutitu	Utoo	"
28	11.10a.m	Mr. Joseph Muvea	28	229 Mutitu	"	"
29	11.10a.m	Mr. John Kithema	55	55, Ndooa	Mutitu	Mutitu
30	11.15a.m	Mr. Jackson Kilunda	43	200, Ndooa	Kiliki	"
31	11.15a.m	Mr. J. K. Kasia	57	208, Mutitu	Mutitu	"
32	11.15a.m	Mr. D. M. Mutua	32	227, Ndooa	Kaliku	"
33	11.15a.m	Mr. Mulyungi	31	55, Ndooa	Mutitu	"
34	11.15a.m	Mrs. Jane Mulangá	24	222, Ndooa	"	"
35	11.15a.m	Miss P. Mandi	22	229, Ndooa	Ndooa	"
36	11.15a.m	Mrs. Mwendé Kyalo	24	229, Ndooa	"	"
37	11.15a.m	Mrs. Christina Peter	35	50, Ndooa	Mutitu	"
38	11.15a.m	Mrs. Veronica Mwingi	45	-	"	"
39	11.15a.m	Mrs. Christine Gedion	42	-	"	"
40	11.15a.m	Mr. Japheth Munyithya	44	80, Ndooa	Mutyangombe	Nuu
41	11.40a.m	Mrs. Kambua Wambua	18	1, Mutitu	Itiko	Mutitu
42	11.40a.m	Mrs. Kavutha Mwithya	48	8, Mutitu	Mutitu	"

43	11.40a.m	Mrs. Mwelu Makau	38	1,Mutitu	"	"
44	11.40a.m	Mrs.Elizabeth Ngazu	50	1,Mutitu	"	"
45	11.40a.m	Mrs.Christine Gedion	42	1,Mutitu	"	"
46	11.40a.m	Mrs.Koki Munyoki	37	108,Mutitu	"	"
47	11.40a.m	Mrs. Bretta Muthwii	38	1,Mutitu	"	"
48	11.40a.m	Mrs. Penninah Mutinda	35	35,Mutitu	Kitoo	"
49	11.40a.m	Mrs.Vathei Malonza	45	1,Mutitu	Mutitu	"
50	11.40a.m	Mrs.Janeffer Malonza	23	-	Musukini	"
51	11.40a.m	Mrs.Joseph Mbuu	54	41,Mutitu	Mutitu	"
52	11.40a.m	Mr. Paul Mulalya	28	220,Mutitu	"	"
53	11.40a.m	Mr. Peter Munyao	50	4,Mutitu	"	"
54	11.40a.m	Mr. Kimele Ivulisya	33	-	"	"
55	11.40a.m	Mr. Muvengei Musili	60	158,Mutitu	"	"
56	11.40a.m	Mrs. Christine Mutwa	36	4,Ndooa	"	"
57	11.40a.m	Mrs. Kyunyu Musiu	47	1,Mutitu	"	"
58	11.40a.m	Mrs. Koki Malonza	29	4,Mutitu	"	"
59	11.40a.m	Mrs. Rebecca Mutitu	40	6,Mutitu	Kitooni	"
60	11.40a.m	Mrs. Catherine Kauma	25	-	Mutitu	"
61	11.40a.m	Mrs.Tabitha Kathule	50	-	"	"
62	11.40a.m	Mrs.Mwende Sammy	35	18,Mutitu	Kitoo	"
63	11.40a.m	Mrs.Teresia Stephen	34	48,Ndooa	Mutitu	"
64	11.40a.m	Mr.Onesmus Nzomo	32	11,Ndooa	"	"
65	11.50a.m	Mrs.Beth Robert	29	5,Ndooa	Mutitu	Mutitu
66	11.50a.m	Mrs.Beatrice Mutia	28	35,Ndooa	"	"
67	11.50a.m	Mrs.Margaret John	32	18,Ndooa	"	"
68	11.50a.m	Mr. Mutinda Athumani	65	P.O.Ndooa	"	"
69	11.50a.m	Mrs.Kanini Mwilu	40	P.O.Ndooa	"	"
70	11.50a.m	Miss Saumu Nyongwe	28	69,Itiko	"	"
71	11.50a.m	Mrs. Katuki Kilungala	34	68,Itiko	"	"
72	11.50a.m	Mr.Mwikya Nyeki	65	9,Mutitu	"	"
73	11.50a.m	Mr.Wambua Nzila	70	P.O.Ndooa	"	"
74	11.50a.m	Mrs.Musau Mutia	60	P.O.Ndooa	"	"
75	11.50a.m	Mrs.Kantengá	33	P.O.Ndooa	"	"
76	11.50a.m	Mrs. Katee Mulu	22	25,Mutitu	"	"
77	11.50a.m	Mrs.Kavengi Mwala	26	2,Ndooa	"	"
78	11.50a.m	Mrs.Mboka Malonza	36	46,Ndooa	"	"
79	11.50a.m	Mrs. Mary Mwangangi	25	2,Ndooa	"	"
80	11.50a.m	Mrs.Mwisiwa Tuli	36	P.O.Ndooa	"	"
81	11.50a.m	Mr.Kangesa Maanda	48	31,Ndooa	Musukini	"
82	12.00p.m	Mrs.Salome Mutinda	38	50,Mutitu	Kitoo	"
83	12.00p.m	Mr.Mutinda Musyoka	65	1,Mutitu	Mutitu	"
84	12.00p.m	Mrs.Kingola Kasambu	48	1,Mutitu	"	"
85	12.00p.m	Mrs.Mutongoi Muvoi	55	116,Mutitu	"	"
86	12.00p.m	Mr. Musyoka Kanyi	30	70,Mutitu	"	"
87	12.00p.m	Mr.William Mutambu	30	215,Mutitu	Moi	Nuu
88	12.00p.m	Mr.John Kioko	29	28,Ndooa	Ndooa	Mutitu
89	12.00p.m	Mrs.Beatrice Kamene	39	124,Mutitu	Mutitu	"
90	12.00p.m	Mrs.Hellen Muthengi	42	124,Mutitu	"	"



91	12.00p.m	Mrs.Mutethya Munyithya	42	P.O.Ndooa	"	"
92	12.00p.m	Mrs.Kasyoka John	24	66,Ndooa	"	"
93	12.00p.m	Mrs.Kanyaa Kiema	40	P.O.Kitoo	Kitoo	"
94	12.00p.m	Mrs.Kangalikya Wambua	35	1,Mutitu	Mutitu	"
95	12.00p.m	Mrs. Kikuyu Mutua	17	62,Mutitu	Kitoo	"
96	12.00p.m	Mrs.Sofia Mboi	50	36,Mutitu	"	"
97	12.00p.m	Mrs.Christine Mwanzia	16	P.O.Kitoo	"	"
98	12.00p.m	Mrs. Mwendu Mulatya	17	62,Mutitu	"	"
99	12.00p.m	Mrs. Mwendu Nthenge	20	P.O.Musukini	Musukini	"
100	12.00p.m	Mrs. Kamenge Kioko	50	P.O. Ndooa	Mutitu	"
101	12.00p.m	Mr. Joseph Munyoki	23	59,Mutitu	"	"
102	12.00p.m	Mrs.Monica Mwikali	50	P.O.Ndooa	"	"
103	12.00p.m	Mrs.Kivaa Masuluu	45	P.O.Ndooa	"	"
104	12.00p.m	Mr. Daniel Mwinzi	38	62,Ndooa	"	"
105	12.00p.m	Mrs.Esther Musili	35	62,Ndooa	"	"
106	12.00p.m	Mrs. Esther Mwengi	22	60,Ndooa	"	"
107	12.00p.m	Mrs.Masakwa Katulu	48	P.O.Ndooa	"	"
108	12.05p.m	Mrs.Ndunge Mukandi	20	28,Ndooa	"	"
109	12.05p.m	Mrs.Kavula Kavyu	21	P.O.Ndooa	"	"
110	12.05p.m	Mrs.Kanywa Muthui	34	P.O.Ndooa	"	"
111	12.05p.m	Mrs. Kasina Kiutu	53	70,Ndooa	"	"
112	12.10p.m	Mrs. Esther Mutisya	50	P.O.Ndooa	"	"
113	12.10p.m	Mrs.Musangi Malonza	32	62,Ndooa	Mutitu	Mutitu
114	12.10p.m	Mrs.Kalue Mwakavi	32	140,Kitoo	"	"
115	12.10p.m	Mrs.Felistus Muthina	21	140,Kitoo	"	"
116	12.10p.m	Mrs.Syongómbe Mutua	30	P.O.Ndooa	"	"
117	12.10p.m	Mrs.Ruth Syengu	55	39,Ndooa	"	"
118	12.15p.m	Mrs.Mwathi Mungami	20	18,Ndooa	"	"
119	12.17p.m	Mrs.Annastacia Muthui	39	123,Ndooa	"	"
120	12.17p.m	Mrs. Carol Musyoka	19	18,Ndooa	"	"
121	12.17p.m	Mrs. Glads Nditu Mulwa	21	P.O.Ndooa	"	"
122	12.17p.m	Mrs.Mbeti Maangi	57	Musukini	"	"
123	12.17p.m	Mr.Mwilo Muthui	44	69,Mutitu	"	"
124	12.17p.m	Mr.Benjamin Kyumbu	70	219,Mutitu	"	"
125	12.17p.m	Mr.Isaac Noah	30	99,Mutitu	"	"
126	12.17p.m	Mrs.Mwatha Katia	24	9,Mutitu	"	"
127	12.17p.m	Mrs.Mwendu Kilonzi	33	35,Mutitu	"	"
128	12.17p.m	Mrs.Philomina Munzaa	35	35,Mutitu	"	"
129	12.20p.m	Mr.Kulalya Kiliku	80	1,Mutitu	"	"
130	12.20p.m	Mrs.Kithunu Kiluko	40	1,Mutitu		
131	12.20p.m	Mrs. Kilolo Kimantheni	40	1, Mutitu	"	"
132	12.20p.m	Mrs. Koki Mwikya	47	8,Mutitu	"	"
133	12.20p.m	Mrs.Bethi Kakuti	58	1,Mutitu	"	"
134	12.20p.m	Mrs.Mbisu Muyueia	50	1,Mutitu	"	"
135	12.20p.m	Mrs.Martha Kakusu	25	1,Mutitu	"	"
136	12.20p.m	Mrs.Esther Kawinga	42	54,Mutitu	"	"
137	12.20p.m	Mrs.Elizabeth Maithya	20	54,Mutitu	"	"
138	12.20p.m	Mrs.Ndavi Mutunga	33	60,Mutitu	"	"

139	12.20p.m	Mrs.Mueni Musya	21	60,Mutitu	"	"
140	12.20p.m	Mrs.Mbula Peter	22	60,Mutitu	"	"
141	12.20p.m	Mrs.jane Kawi	33	55,Ndooa	"	"
142	12.20p.m	Mrs.Mwende Ikovo	40	P.O.Ndooa	"	"
143	12.20p.m	Mrs.Maurine Mulanga	17	222,Ndooa	"	"
144	12.20p.m	Miss Jane Kamami	15	222,Ndooa	"	"
145	12.20p.m	Mrs.Musui Muthui	45	P.O.Ndooa	"	"
146	12.25p.m	Mrs.Kamene Kamunzaa	50	P.O.Ndooa	"	"
147	12.25p.m	Mrs.Nzambali Agnes	35	54,Ndooa	"	"
148	12.25p.m	Mrs.Paulina Muthui	28	54,Ndooa	"	"
149	12.25p.m	Mr.Munzau Mutunga	40	P.O.Ndooa	"	"
150	12.27p.m	Mr. Ndaita Kyalo	33	60,Mutitu	"	"
151	12.27p.m	Mrs.Sofia Lazaro	50	P.O.Ndooa	"	"
152	12.27p.m	Mr. Sumu Muvengei	50	P.O.Ndooa	"	"
153	12.30p.m	Mrs. Doroth Kimanzi	60	P.O.Ndooa	"	"
154	12.30p.m	Mrs. Boi Makau	40	P.O.Ndooa	"	"
155	12.30p.m	Mrs. Amina Kamote	30	4,Ndooa	"	"
156	12.30p.m	Mrs. Katuku Nzumula	28	9,Ndooa	"	"
157	12.30p.m	Mr. Timothy Nzengi	39	37,Ndooa	"	"
158	12.30p.m	Mrs. Wanza Mboya	20	P.O.Ndooa	"	"
159	12.30p.m	Mrs. Mukengi Mukuthu	29	P.O.Ndooa	"	"
160	12.30p.m	Mrs. Kamene Mwendwa	38	P.O.Ndooa	"	"
161	12.30p.m	Mrs.Malia Ngomo	25	1,Mutitu	Mutitu	"
162	12.30p.m	Mrs.Syombua Kamangulu	55	1,Mutitu	Kitoo	"
163	12.45p.m	Mrs. Kanini Joseph	16	140,Mutitu	"	"
164	12.45p.m	Mrs. Betty Mwangangi	15	140,Mutitu	"	"
165	12.45p.m	Mrs.Mwanthi Kimathi	30	1,Mutitu	Ngiluni	"
166	12.45p.m	Mrs.Nzunga Mwendwa	29	1,Mutitu	Kitoo	"
167	12.45p.m	Mrs.Kitondo Kailu	60	1,Mutit1	"	"
168	12.45p.m	Mrs.Munzi Maangi	29	1,Mutitu	Musukini	"
169	12.45p.m	Mrs.Mary Ngungu	29	92,Ndooa	Mutitu	"
170	12.45p.m	Mrs.Anna Ngui	45	1,Mutitu	Kasasini	"
171	12.45p.m	Mrs.Syombu Ndothya	60	1,Mutitu	Mutitu	"
172	12.45p.m	Mrs. Mary Mutinda	25	1,Mutitu	Musukini	"
173	12.45p.m	Mrs.Ndanu Kulatya	45	P.O.Mutitu	Mutitu	"
174	12.45p.m	Mrs.Kamwila Ngui	35	102,Mutitu	Kitoo	"
175	12.45p.m	Mrs.Agnes Nzambuya	35	1,Mutitu	Musukini	"
176	12.45p.m	Mrs.Josphine Musali	44	1,Mutitu	Kitoo	"
177	1.00p.m	Mrs.Jedida Mulatya	35	1,Mutitu	Kitoo	"
178	1.00p.m	Mrs.Mumbi Matheka	20	1,Mutitu	Mungalu	"
179	1.00p.m	Miss Doreen Kimathi	20	9,Mutitu	Mutitu	"
180	1.00p.m	Miss Katuku Kiki	17	72,Mutitu	Ndooa	"
181	1.00p.m	Mr.Kathambula Kasia	60	50,Mutitu	Mutitu	"
182	1.00p.m	Mr. Francis Musango	23	P.O.Ndooa	"	"
183	1.00p.m	Mr.Syengo Mutia	50	P.O.Ndooa	"	"
184	1.00p.m	Mrs. Koki Malonza	40	P.o.Ndooa	"	"
185	1.00p.m	Mrs.Kasyoka Joseph	24	72,Ndooa	"	"
186	1.00p.m	Mr. Munyoki Musingi	70	P.O.Ndooa	"	"

187	1.00p.m	Mrs.Mwiyathi Kariuki	70	"	"	"
188	1.05p.m	Mr.Dominic Nzoka	32	"	"	"
189	1.05p.m	Mrs.Nduku Mulingo	53	"	"	"
190	1.05p.m	Mrs.Esther Ndeewa	60	"	"	"
191	1.05p.m	Mrs.Anna Ndeewa	70	"	"	"
192	1.05p.m	Mrs.Francis Mulu	22	"	"	"
193	1.05p.m	Mrs.Fridina Nzika	22	"	"	"
194	1.10p.m	Mrs.Esther Alex	34	"	"	"
195	1.10p.m	Mrs.Reginah Stephen	21	69,Ndooa	"	"
196	1.15p.m	Mrs.Nzangu Nzuki	29	P.O.Ndooa	"	"
197	1.17p.m	Mrs.Loice Ngala	30	"	"	"
198	1.17p.m	Mrs.Ngulu Kimanzi	55	"	"	"
199	1.17p.m	Mrs.Grace Kilonzi	34	37,Ndooa	"	"
200	1.17p.m	Mr.C.K.Kyunuve	50	38,Ndooa	"	"
201	1.17p.m	Mrs.Mwende Maluki	35	P.O.Ndooa	"	"
202	1.17p.m	Mrs.Beth Mwinza	47	P.o.Ndooa	"	"
203	1.17p.m	Mrs.Kalumu	55	44,Ndooa	"	"
204	1.30p.m	Mrs.Mali Syengo	39	90,Ndooa	"	"
205	1.30p.m	Mrs.Ndulu Nyanya	47	1,Mutitu	"	"
206	1.30p.m	Mr. Paul Kanyai	35	55,Mikuyuni	"	"
207	1.30p.m	Mrs.Ruth Kativini	47	86,Mutitu	Kitoo	"
208	1.30p.m	Mrs.Damaris Muinyathi	47	1,Mutitu	"	"
209	1.30p.m	Mrs.Kavata Ndali	20	1,Mutitu	Mikuyuni	Mutitu
210	1.30p.m	Mrs.Mulewa Wambua	35	4,Mutitu	Masesini	"
211	1.45p.m	Mrs. Emily Masili	18	4,Mutitu	Kitoo	"
212	1.45p.m	Mr. Mutinda Kyule	35	1,Mutitu	Manyoeni	"
213	1.45p.m	Mr. Nzambi Mwanzaa	35	1,Mutitu	Mukuyuni	"
214	1.45p.m	Mrs. Mwende Mwendwa	45	1,Mutitu	"Musukini	"
215	1.45p.m	Mrs. Musangi Syengo	36	1,Mutitu	"	"
216	1.45p.m	Mrs. Jacinta Muema	27	42,Mutitu	"	"
217	1.45p.m	Mrs.Martha Muthwii	27	1,Mutitu	Itiko	"
218	1.45p.m	Mrs.Nganyau Masila	50	1,Mutitu	Mutitu	"
219	1.45p.m	Mr. Gedion Mbiti	65	70,Ndooa	"	"
220	1.45p.m	Mrs.Ngali Mbiti	50	70,Ndooa	"	"
221	1.55p.m	Mr. Joseph Nzenge	71	2,Ndooa	"	"
222	2.00p.m	Mrs. Mwathi Masila	36	7,Ndooa	"	"
223	2.00p.m	Mrs.Martha Mulwa	33	P.O.Ndooa	"	"
224	2.00p.m	Mrs.Kalekye Mulatya	33	43,Ndooa	"	"
225	2.00p.m	Mrs.Kinoko Musyoka	36	43,Ndooa	"	"
226	2.10p.m	Mrs.Esther Mukolo	28	168,Ndooa	"	"
227	2.10p.m	Mrs.Musangi Mutunga	55	P.O.Ndooa	"	"
228	2.10p.m	Mrs. Kavii Kaseki	55	P.O.Ndooa	"	"
229	2.10p.m	Mr.Nyamai Mutambuki	25	18,Ndooa	"	"
230	2.10p.m	Mr.Munyoki Nguthu	25	P.O.Ndooa	"	"
231	2.15p.m	Mr.Muia Ngata	22	71,Ndooa	"	"
232	2.15p.m	Mrs. Agnes Ngala	25	71,Ndooa	"	"
233	2.15p.m	Mrs.Syombua Mwinzi	18	71,Ndooa	"	"
234	2.15p.m	Mrs. Musangi Mutinda	35	P.O. Ndooa	"	"

235	2.15p.m	Mrs. Lena Kitheka	55	P.O.Ndooa	"	"
236	2.15p.m	Mrs.Bete Mwangangi	43	55,Ndooa	"	"
237	2.15p.m	Mrs. Sela Muthui	60	P.O.Ndooa	"	"
238	2.15p.m	Mrs. Bovi Solo	22	4,Ndooa	"	"
239	2.15p.m	Mr. Mwitungi Muengei	40	P.O.Ndooa	"	"
240	2.15p.m	Mr. Munzuu Kilui	40	P.O.Ndooa	"	"
241	2.20p.m	Mrs. Maliu Mungéwa	30	69,Ndooa	Itiko	"
242	2.30p.m	Mrs. Beth Misi	30	32,Ndooa	Mutitu	"
243	2.30p.m	Mrs. Veronica Maluki	45	130,Ndooa	"	"
244	2.30p.m	Mrs. Muthui Salu	42	1,Mutitu	"	"
245	2.30p.m	Mrs. Queen Ngonda	34	1Mutitu	Kitoo	"
246	2.30p.m	Mrs.Kithehi Mutiva	37	1,Mutitu	"	"
247	2.30p.m	Mrs.Kamondi Maluki	37	1,Mutitu	"	"
248	2.30p.m	Mrs.Musali Maluki	40	1,Mutitu	"	"
249	2.30p.m	Mrs.Muli Kyatya	40	10,Mutitu	Musukini	"
250	2.30p.m	Mrs.Mwiyathi Ngala	23	69,Itiko	Itiko	"
251	2.30p.m	Mr.Mutia Kithome	31	P.O.Ndooa	Mutitu	"
252	2.30p.m	Mrs.Katui Kivusyu	70	P.O.Ndooa	"	"
253	2.35p.m	Mrs.Sela Mulwa	65	125,Ndooa	"	"
254	2.38p.m	Mrs.Teresia Munyoki	48	4,Ndooa	"	"
255	2.49p.m	Mrs.Kaveki Mwangangi	25	P.o.Ndooa	"	"
256	3.00p.m	Mrs.Selestine Kamana	30	18,Ndooa	"	"
257	3.05p.m	Mr.Kangangi Kithine	75	P.O.Ndooa	Mutitu	Mutitu
258	3.06p.m	Mr.Kiema Kimasi	45	P.O.Ndooa	"	"
259	3.07p.m	Mrs.Rebecca Peter	33	45,Ndooa	"	"

## Appendix. III

**LIST OF MATERIALS**

Section	Item	Quantity & Units	Source
Registration	Registration forms		
	Farmer	40 papers	Centre
	Teachers	05 papers	"
	Clock	1	"
	Stamper	1	"
	Pens	2	"
	Table	1	Site
Introduction & importance of tree planting	Useful tree samples	10	Centre
	Medicinal samples	10	"
	Chart of tree uses	1	"
Seed collection & pre-treatment techniques	Seed samples	Various species	Centre
	Seed sample board	1	"
	Secateur	1	"
	Plastic sheets	2	"
	Portable ladder	1	"
	Hooked pole	1	"
	Rope	1	"
	Small cloth bag	1	"
	Pestle	1	"
	Mortar	1	"
	Ordinary ladder	1	Site
	Tin cans	4	Centre
	Seed labels	2	"
	KCJ	2	"
	Charcoal	0.5 bag	Site
	Sufurias	3	Centre
	Metal cup	1	"
	Sack	1	"
	Knives	2	"
	Germination boxes	6	"
Nursery establishment & techniques and management	Germination boxes	2	Centre
	Soil	4 wheelbarrows	Site
	Sand	4 wheelbarrows	"
	Manure	4 wheelbarrows	"
	Ash	0.5 wheelbarrows	"
	Broken bricks	20	"
	Soil sieves	2	Centre
Pruning knives	2	"	

	Small poles	10	Site
	Watering cans	3	Centre
	Local watering cans	1	"
	Small stones	0.5 wheelbarrows	Site
	Germinated seedlings	100	Centre
	Dibblers	2	Site
	Dry grass	0.5 wheelbarrow	"
	Polytubes	100	Centre
	Milk packets	10	"
	Tins	10	"
	Seeds (small & big)	100	"
	Seedlings	20	"
	Seedling containers	2	"
Planting and tending techniques	Planting & tending charts	10	Centre
	Bottles	2	"
	Seedlings	6	"
	Sticks for fencing		Site
	Eurphobia branches		"
Agroforestry & soil conservation techniques	Chart of home garden	1	Centre
	Charts of role of trees in agroforestry.	3	"
	Agroforestry techniques system charts.	2	"
	Soil conservation charts	2	Centre/ Site
Question & Answer	Pen	1	Centre
	Writing pad	1	"
	Table & chair	2 each	Site
Video Show	Video decks	2	Centre
	T.V screen	1	"
	Documentary video	3	"
	Cassettes		
	Extension code	17 metres	Centre
	Adaptor (plug)	1	"
	Tent	1	"
	Table	1	"
	Chair	1	Site
	Benches	10	"
	Fan	1	"
			Centre
Common items for all sections	Jembes	5	Centre/ Site
	Pangas	2	Site
	Shovels	4	Centre
	Slashers	2	"
	Rakes	2	"
	Water	1 tanker	"

	Water jerricans	3	"
	Ropes	120 metres	"
	Posts	15	"
	Shoulder belts	10	Site
	Name tags	22	Centre
	Tables	4	"
	Manilla papers	30	Site
	Mark pens	20	Centre
	Display boards & stands	10	"
	Flip charts	2	"
	Indicating sticks (pointers)	8 8	"
	Sectional labels		Site Centre
Distribution items	Brochures	400	Centre
	Stickers	100	"
	Social forestry Techniques part 1	20	"
Catering & Quencher	K.C.J medium	1	Centre
	Plates	30	"
	Spoons	20	"
	Plastic bowls	20	"
	Quencher	40 litres	"
	Water bucket	1	"
	Water basins	2	"
	Water jars	2	"
	Glasses	20	"

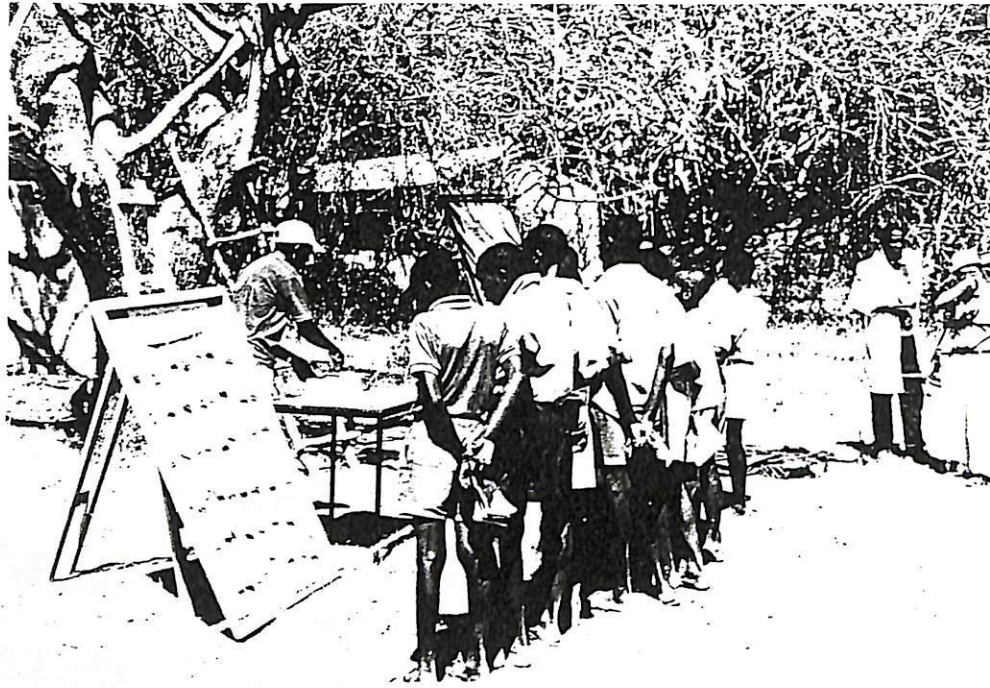
Appendix IV

**LIST OF FACILITATORS/RESOURCE PERSONS**

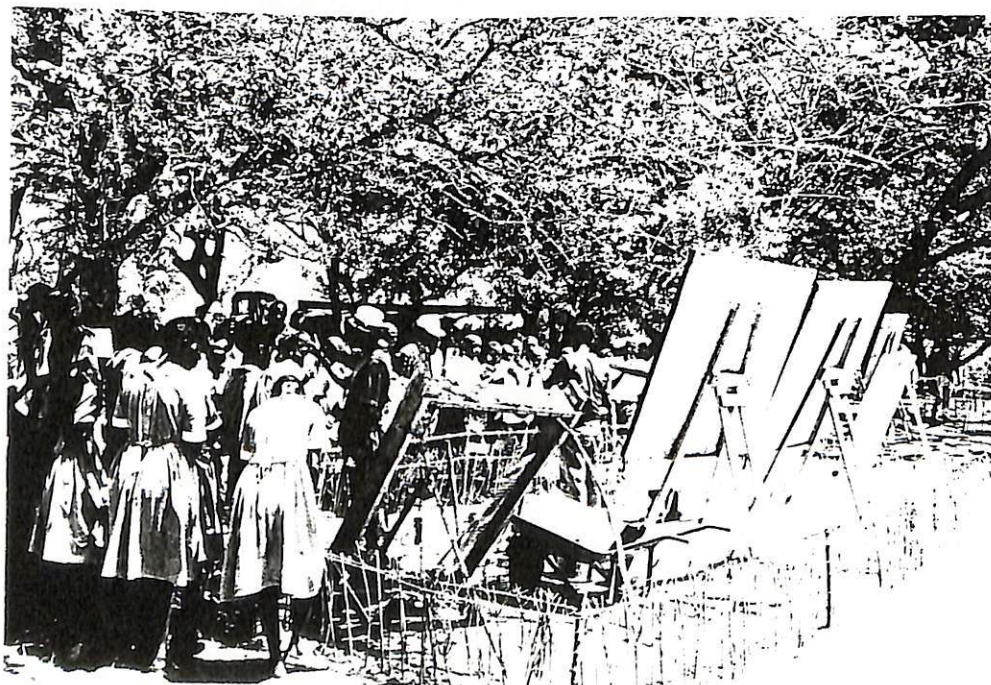
No.	Section	Facilitator	Department
1	Introduction & importance of tree planting	Forester Mutitu Jeremiah Nguniko	F. D. KEFRI
2	Simple seed collection and pre-treatment techniques	Lucas Rateng Samuel Auka Ezekiel Kyalo	KEFRI " "
3	Nursery establishment and techniques	Ali Abdala Stancelous Mbingu C. Kilele	KEFRI " S. F. T. P
4	Planting and tending techniques	Chahilu Osore Martin Obare Nelson Kavoi	KEFRI " S.F.T.P
5	Agroforestry and soil conservation techniques	John K. Mungai Mutemi Mutitu Soil Conservation Officer (Mr. Kaluku)	Min of Energy M. O. A M. O. A.
6	Questions and Answers	J. K. Cheboiwo Edward Mutie Florah Mwawughanga Hiromi Yamauchi	KEFRI F. D. KEFRI S.F.T.P
7	Video Show	Otieno M. J. Kenji Kemochi Damaris Munyao Josephine Mbuvi	S. F. T. P. S. F. T. P. KEFRI S. F. T. P.



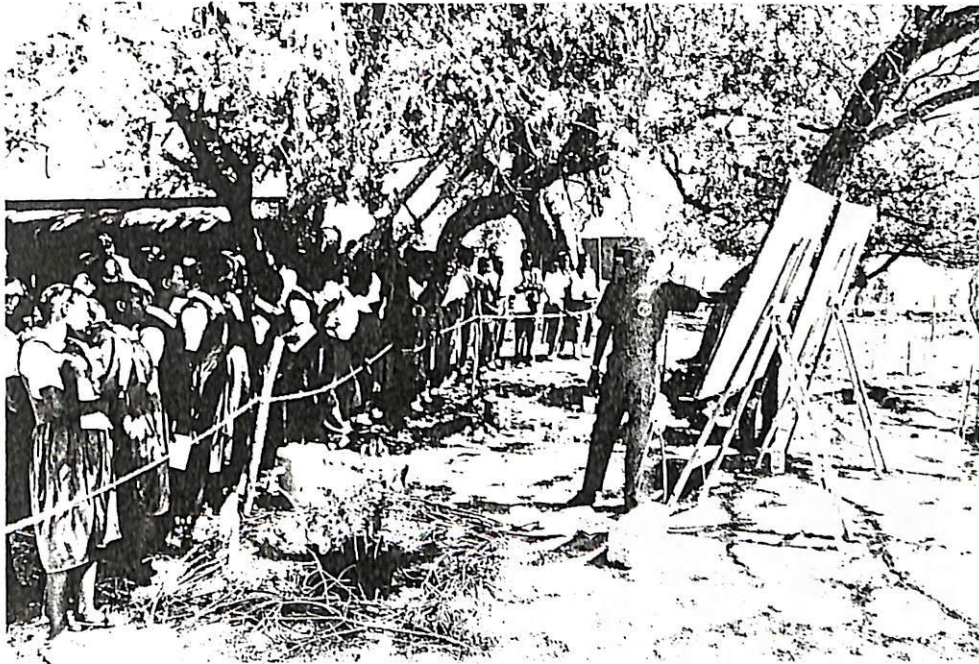
Photograph 1: School pupils going through the seed collection, handling and pre-treatment session.



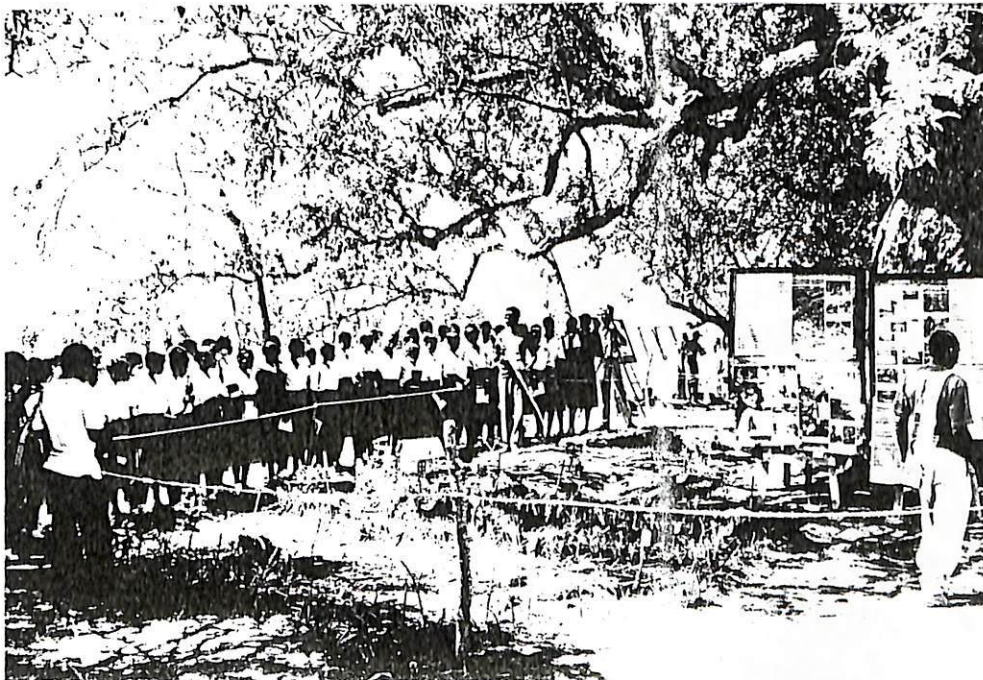
Photograph 2: School pupils going through the nursery establishment and nursery management techniques session.



Photograph 3: School pupils and students going through the planting, tending and tree management techniques session.



Photograph 4: Students going through the Agroforestry and soil conservation session.



Photograph 5: Students and their teacher going through the questions and answers session.



Photograph 6: The organisers and some of those who attended, during the closing ceremony.



