

PROJECT WORKING PAPER NO. 2



**KENYA FORESTRY
RESEARCH INSTITUTE**

KENYA/JAPAN



**JAPAN INTERNATIONAL
COOPERATION AGENCY**

SOCIAL FORESTRY TRAINING PROJECT

REPORT OF THE SURVEYS

ON

TRAINING NEEDS

ACKNOWLEDGEMENT

The Kenya/Japan Social Forestry - Nursery Training Project is greatly indebted to the field staff of the Forest Department and the rural people of Kenya who kindly received the surveys teams of the project, replied many questions with untiring interests and passed onto the teams their valuable experience and frank options.

The results of the surveys were very useful for the Preparatory Phase of the Project of which the most important task was to decide on the future activities of the Main Phase to start from November 1987 for five years.

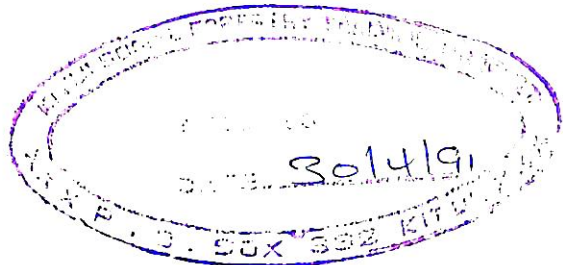
It is hoped that the activities of the Main Phase to be designed and structured on the basis of the findings contained in this report would contribute to further development of social forestry in Kenya.

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1. Introduction

The work plan of Kenya/Japan Social Forestry - Nursery Training Project which was approved by the Project Joint Committee in July 1986 specified that a series of surveys on training needs should be undertaken in order to identify training needs in social forestry covering at least five provinces of Kenya during its Preparatory Phase.

Cooperation between the Government of Japan (GoJ) and the Government of Kenya (GoK) is being carried out through two channels. One is the Grant Aid Programme for the construction of research and training facilities at both national and regional levels. In this programme one national research and training centre will be provided at the Headquarters of Kenya Forestry Research Institute (KEFRI) at Muguga and one regional training centre at Kitui which will function as a base for attacking the problem of rural energy crisis and environmental destruction in the semi-arid area. Another channel of cooperation is a technical cooperation programme i.e. this project which is operational for two years but expected to enter the Main Phase towards the end of 1987 for another five years. As it was originally expected that the construction of the Grant Aid would be completed before the start of the Main Phase, the work plan included a series of five surveys to be completed during the period from July 1986 to March 1987 and the findings of the surveys should be reflected in the structure and the plan of work of the Main Phase.

In addition to the above mentioned objective it was also hoped that when undertaking the surveys, trips should be undertaken to the on-going forestry projects assisted by other donors in order to gain experience and knowledge about the social forestry development activities already taking place in the rural areas of Kenya.

As the Preparatory Phase also covered construction and operation of nurseries under the Special Measure of GoJ, it was also important to obtain information about currently on-going nursery operations in the field of social forestry. It should be added that surveys were intended to cover diverse socio-economic and ecological zones of Kenya so as to ensure that the training activities of the Main Phase would satisfy the training needs of such different areas which may change by localities.

2. Survey Method

The surveys were undertaken as follows;

(a) Provincial Forest Officer (PFO) was approached by KEFRI with the request that about ten persons from each of two groups (i.e. trainers and trainees) to be selected by the District Forest Officers (DFOs) concerned.

(b) The people selected were interviewed by a team of KEFRI staff and Japanese experts using the questionnaires A and B separately prepared. The questionnaire A was for PFO, DFO, District Forest Extension Officers and others regarded as those who should play a role of promoters of social forestry in the respective areas. The questionnaire B was for farmers, school teachers and/or other people who are supposed to be trained in the future social forestry training activities. The questionnaires A and B attached as Annexes 1 and 2 respectively.

This survey method was designed so as to minimize the time and efforts to obtain results in a limited time and in view of the other activities of the Project which had to be initialed mainly in the Kitui area, the establishment of the Pilot Forest in particular. Therefore, this method naturally leaves some room for further improvement in certain aspects e.g. the selection of samples, interviewer/interviewee relation, reliability of answers and so on. However, it is hoped that this short-coming would be rectified by the future operation of the Pilot Forest Scheme in the Kitui area and by its baseline socio-economic survey.

3. Surveys Undertaken

Time	Area Covered	Survey Team Members
(a) 25-29th Aug. 1986	Kakamega District, Western Province Siaya District, Nyanza Province	C.K. Kirrinya (KEFRI) K. Watanabe (JICA) Y. Yanagihara (JICA)
(b) 16-19th Nov. 1986	Taita Taveta District, Coast Province	L.O. Sabaya (KEFRI) C. Kahumbura (MENR) Y. Yanagihara (JICA) M. Hori (JICA)
(c) 23-26th Feb. 1987	Murang'a and Nyeri Districts, Central Province	M.O. Mukolwe (KEFRI) Y. Yanagihara (JICA) N. Noda (JICA) K.M. Kimemia (MENR)
(d) 23-26th Mar. 1987	Uasin Gishu, Nandi & Baringo Districts, Rift Valley Province	A. Yobterik (KEFRI) K. Watanabe (JICA) M. Hori (JICA)

4. Survey Results and Findings

4.1 Forestry Field Staff (Trainers)

4.1.1 Local Situation on Tree Planting Activities

TABLE 1

	Western Nyanza	Coast	Central	Rift Valley	Tree Planting Activities T O T A L
Satisfied	3	1	7	2	13
Not Satisfied	6	2	3	8	19
Total	9	3	10	10	32

The Majority of trainers were not satisfied with the tree planting activities in their respective areas. Those who were satisfied equally indicated a good response from the local people to their appeal to promote tree planting. It was noticeable that this group belonged to an upper echelon of the field structure of the Forest Department, GoK or to the local intellectuals group, namely teachers and priests. Those who indicated their dissatisfaction referred to various reasons, i.e. lack of extension activities caused by shortage of personnel, inadequate knowledge and skills in extension techniques, gap of awareness between district, divisional and locational levels, social taboos which prohibit women from tree planting and so on. Answers were divided, still "improvement measures" proposed by all were mostly the same. They were;

- (a) Provision of transport means for the Forestry Extension Workers,
- (b) Provision of operational budget for them,
- (c) Establishment of more nurseries and intensified on-spot extension.

It was also clear from many answers that not only distribution of tree seedlings but also planting, tending and protection of seedlings planted were the concern of the majority of trainers. They indicated that the survival rate of trees planted was as low as 10% or even less in some localities and an increased supply of seedlings only at the time of national tree planting week would not ensure satisfactory tree planting efforts in the rural areas.

It was also found from many trainers that Chiefs' nurseries established under a Presidential decree were not functioning well in spite of nursery foremen assigned to these nurseries by the

Forest Department. The general tendency was that all the burdens were put on the foremen in the absence of the villages' support to the nurseries which was to be organized on "harambee" basis.

4.1.2 Trainers' Training Activities

TABLE 2

	Western, Nyanza	Coast	Central	Rift Valley	TOTAL
Carried out	7	3	5	2	17
Not carried out	2	0	5	8	15
TOTAL	9	3	10	10	32

Nearly half of trainers have never carried out training activities and this may be taken as a serious short-coming in developing social forestry in the rural Kenya. Even among those who replied "yes", it was found that the training activities they had referred to were organized by other institutions and/or NGO groups and donor assisted projects and were not implemented on their own initiative.

Taking into account such factors, training activities in social forestry in Kenya in general would have to be started from scratch and must be vigorously strengthened.

Answers to the questions related to the training activities carried out were as follows;

(a) Types of training activities carried out

A largest number appeared here were training courses organized for Chiefs and Assistant Chiefs by GoK. Some trainers were invited to give lectures in the courses on social forestry, agroforestry and rural tree planting in general. About half of the training activities was organized by various projects assisted by donors such as CARE, DANIDA, USAID, and Swiss Development Support. A few of noticeable training activities were local "barazas" (meetings) for Chiefs, Assistant Chiefs and village elders. Only two persons indicated their training activities at a University college and high schools.

(b) Target groups

As to what people should be selected as target groups they indicate in the following order;

Women group leaders	(17)
Active farmer	(10)
Chiefs	(9)
Community leaders	(9)
School children	(7)
Teachers	(5)
Agricultural Extension staff	(3)

N.B. Numbers in brackets exceed the total number of trainers as plural answers were obtained from each. KANU leaders, church and /or hospital employees, nursery headmen were also indicated by one or two persons as possible target groups.

(c) Training subjects

Although separate subjects such as seed collection and handling, nursery practices, planting and tending techniques were mentioned by the interviewers as examples, but the majority of trainers indicated all such subjects must be included in the training activities. The results were as follows;

All subjects	(14)
Tending techniques	(10)
Planting	(9)
Nursery	(8)
Seed collection and handling	(7)

Agroforestry, the concept and necessity of social forestry, nursery establishment were also indicated but only by a few. However, the preference of trainers regarding such subjects may have been left out because of the format of the questionnaire.

(d) Duration of training

There were various answers ranging from 1 -2 days to 1 month but majority of opinions concentrated between 1 - 2 days to less than two weeks. It was likely that the trainers having Chiefs as a target group in mind tended to mention two weeks and those who thought of farmers as target group indicated a shorter duration.

(e) Suitable number of trainees

Answers ranged from less than 10 to 80. Two peaks were observed among answers namely 20-30 and 40-50, and it was clear that 20-30 was for Chiefs and 40-50 for farmers to be trained at a time.

(f) Location of training

Farmers Training Centres (FTCs) available in almost all Districts were the most favoured location, only one or two trainers each indicated other facilities such as schools, local hostel, District Headquarters, Divisional Headquarters and KEFRI Headquarters in Muguga.

(g) Timing of training

Almost all trainers indicated that training would take place between 900 hours and 1300 hours during the slack period of farming. Some trainers indicated whole day of training or intermitant lecture and practice during the day.

(h) Others

Regarding the field practice all trainers indicated its importance and many favoured more practices than lectures. With regard to training materials, simple ones were favoured such as posters, hand-outs, brochures, etc. As to the question of finance support, transport was definitely to be provided but per diem (daily subsistence allowance) was regarded unnecessary.

4.1.3 Social Forestry Training Received by Trainers

TABLE 3

	Western, Nyanza	Coast	Central	Rift Valley	Total
Received	7	-	5	7	19
Not Received	2	3	5	3	13
TOTAL	9	3	10	10	32

Those trainers who said "yes" referred to classroom training in their formal education which may not be fully relevant in carrying out tasks in social forestry development. Nearly 40% of the trainers had not received any training in the past, the fact that may indicate graveness of the present situation. Subjects of training that would be necessary for future possible training

varied widely but by far the largest share was given to "extension techniques" to reach the people's level. It was noted that training in nursery techniques was rather a small part compared with the above, though important.

Answers to the details related to the past training were as follows;

(a) Type of training received

"During their formal training" was the largest including eleven cases at Kenya Forestry College at Londiani and three Moi University. One each received training by CARE and KENGO (Kenya Energy Non-Governmental Organization). Their evaluation of the training received was mostly favourable indicating evaluation of their capacity in extension techniques, social aspects, people's needs and agroforestry. Many indicated, however, that more strengthening of such training would be needed in such subjects as social forestry concepts, extension techniques, agroforestry and soil conservation for the rural people. Some interviewees said that field practices in social forestry would be strengthened.

(b) Training endeavoured or not

As to whether they would receive further training in social forestry, all except two replied in affirmative indicating strong needs for further training. One of the two who replied in negative indicated his disappointment in the rural forestry extension job as there was no career development. It may be reasonable to assume that he represented unspoken, but deep-rooted, feeling of many other forestry field extension staff.

(c) Subjects preferred

Among the various subjects preferred, "extension techniques" came first (21). The next was "useful tree species" (14). Some votes were cast to nursery, planting, tending and soil conservation techniques. Agroforestry techniques and field trips to the advanced areas were also indicated by some.

(d) Duration of training

There were no clear concentration on the duration since answers ranged from one week to six months. However, there were two moderate peaks, i.e. 2-3 weeks and one month for the training they would like to receive.

(e) Support to training

A majority of trainers indicated that it was essential to obtain their superiors' support to such possible training with financial provision if necessary. They assume, however, that once travel costs and per diem were borne by some donors, no major difficulties in taking up such training were foreseen.

4.1.4 Other Suggestions

When asked for any other suggestions the trainers raised the following points as of importance;

(a) More provisions of transport means

This point had often been raised by many during the interviews. The fact that this came up again for other suggestions would mean that lack of transport was felt as a serious bottleneck in their daily work.

(b) Cooperation with agricultural rural extension programme

Some trainers indicated that the agricultural extension staff were closer to the farmers' level and, if forestry extension structure followed the same pattern part of their work might become redundant. They felt that cooperation between the agriculture and forestry staff would create multiplying effects. On the other hand it must be recorded that a few expressed that forestry extension must be expanded to sub-locational level.

(c) Development of career courses for the forestry extension staff

This was the feeling spoken out by one of the trainers who replied in negative for receiving further training in social forestry.

Other suggestions were mostly for strengthening of forestry field extension activities requesting more offices and housing, more administrative support staff and also strengthening of training for trainers including nursery foremen and Location Chiefs.

4.2 Farmers and Rural People (Trainees)

4.2.1 Willingness of People for Tree Planting

TABLE 4

	Western, Nyanza	Coast	Central	Rift Valley	TOTAL
Yes	12	6	21	16	55
No	0	0	0	0	0
TOTAL	12	6	21	16	55

It was found that all the 55 people interviewed wished to plant trees. It may not be surprising because these people were hand picked by the respective District Forest Officers and suggested for interviews. In many cases, however, selection was made on the spot and interviews were arranged taking into account the convenience of the survey team's itinerary. Therefore it is not correct to assume that only motivated people were selected. The survey teams reckoned in general that the opinions expressed by the people in the respective localities. People do want to plant trees.

(1) Tree species preferred

Considerable difference in people's preferences have been found by Provinces;

(a) Western and Nyanza Provinces

Eucalyptus (E. saligna) and Markhamia (M. platycalex) were the most preferred species but in different areas. In the area covered by the field operation of CARE-Kenya, people's preference was definitely towards indigenous species and the most preferred species was Markhamia (6 answers). In other areas people preferred eucalyptus (8 answers) for firewood and poles and markedly for commercial purposes. The people said that eucalyptus, eleven months after planting could be sold at Kshs.15-25 a piece and commercial tree planting could be quite profitable. Termite attacks have often been observed on eucalyptus planted but did not seem to discourage farmers to plant this species. Other species mentioned are cypress (Cupresus lusitancia) (3), Grevillea robusta (2), black wattle, leucanea, albiziz, etc. Citrus for fruits and bougainvillea as ornamental were also mentioned by one each.

(b) Coast Province

The preferred species are Grevillea robusta for timber, firewood and poles (3) and Neem (Azadirachta indica) as the second preference species for shade, timber, firewood and medicine. Muzaule (Acacia lahai or red thorn), Parkinsonia aculeata and chariso were also mentioned as preferred.

(c) Central Province

In Central Province Grevillea robusta was the most preferred species (18) for timber, firewood and shade. The second preferred species was cypress (C. lusitanica) (12) for timber and fencing. Eucalyptus saligna was the third (8) mainly for firewood. Casuarina, cordia, leucaena and pine (P. patula) were also mentioned by some. Fruit trees were also strongly preferred (15) including mango, avocado, orange, fig and lemon. Jacaranda (7) was preferred as ornamental and firewood.

(d) Rift Valley Province

In Rift Valley Province Cupressus lusitanica (10) was the most preferred species for timber, poles, firewood, fencing and wind-break followed by Eucalyptus saligna (4) for timber and firewood, Pinus patula (4) for timber, wind-break and firewood, Grevillea robusta (4) for shade, firewood, timber and agroforestry, Croton megalocarpus for shade and firewood, Shinus molle (4) mainly for shade. Acacia spp. (3) and other unnamed indigenous species (4) were also preferred. Ornamental species such as jacaranda erythrina, bottle brush, flamboyant were mentioned as preferred species.

(2) People actually planting trees

Out of 55 people interviewed, 49 replied that they were actually planting trees and 6 answered in negative or as not applicable.

In Western and Nyanza Provinces nine people were planting trees but three were not planting because two of them were only producing seedlings in groups and one because of lack of seedlings.

In Coast Province five actually planted but in small numbers of less than 20 trees a year. Only one person said no planting because his shamba was too small.

In Central Province about half of 19 people who were planting was doing it in large numbers but another half was planting only a few trees a year. Those who said "No" were because of too expensive seedlings and also lack of knowledge on how to plant.

In Rift Valley Province all the 16 people interviewed were planting trees including some who were planting more than 200 trees a year.

(3) Whether sufficient number of trees are being planted

As to the question "whether they are planting trees in sufficient number", 12 people interviewed replied yes and 39 gave negative answers and no answer was obtained from the remaining four. Therefore, the majority of the people interviewed thought that they were not planting trees in sufficient number. The reasons given for their dissatisfaction were as follows by Provinces;

- (a) Six people replied in Western and Nyanza Provinces were not happy because of lack or insufficient supply of seedlings and one said no more land was available for tree planting.
- (b) Three people in Coast Province were dissatisfied with the number of trees they could plant because of lack of seedlings and also because no more land was available for tree planting.
- (c) In Central Province 16 people were dissatisfied because of the smallness of "shambas" (9), expensive seedlings (2), lack or shortage of seedlings (2) and lack of knowledge on how to plant.
- (d) In Rift Valley Province 14 people thought that they were not planting trees in sufficient numbers because of shortage or lack of seedlings (8) mainly. Other reasons were shortage of seeds particularly of indigenous species and land to plant trees.

(4) Whether tree planting conflicts with farming

Regarding the question "whether or not tree planting conflicts with farming" eight people interviewed replied "Yes" and 39 said "No". The remaining eight gave no answer or were not applicable. Among the answers in affirmative there were opinions that eucalyptus spoils cropping (3), and also tree planting in general conflicts with maize cropping (2). One opinion was that during the farming period no time could be spared for tree planting.

Among 39 answers indicating no conflicts, there were opinions that tree planting in fact complements farming with the application of agroforestry techniques. Some opinions in Western and Nyanza Provinces indicated that income from tree planting enabled them to employ casual workers during the peak of the farming period.

(5) Tree planting by individuals or groups

Out of 55 interviewed 44 were planted trees individually, three each doing in groups and other three both individually and in groups. Five remaining are not planted trees or no answers. Those who were planting trees in groups were found in Central Province (1) and Rift Valley Province (2). Three people who were practicing tree planting both individually and also in groups were in Western and Nyanza and one in Central Province. It may be concluded that at present tree planting is individually undertaken in the rural Kenya and group planting is not common.

4.2.2 Problems Encountered in Tree Planting

Table 5

	Water/ rain shortage	Lack/ shortage of seed- lings	Lack of knowledge & techniques in planting & tending	Termites damage	Animal damage	Land shortage	Lack of material for nursery
Western, Nyanza	4	0	0	9	1	1	1
Coast	1	2	0	1	2	2	1
Central	13	12	13	2	1	4	3
Rift Valley	12	8	4		8		1
TOTAL	30	22	17	12	12	7	6

	Lack of seeds	Lack of finance	Lack of insect- icide	Fungal disease	Poor soil	Lack of ferti- lizers	Theft mischief	Lack of market
Western, Nyanza	3	1	3	2			1	
Coast								
Central	1	3		1	1	1		1
Rift Valley					2	1	1	
TOTAL	4	4	3	3	3	2	2	1

Regarding the question as to what they had in tree planting the people raised different problems by Provinces (Ref. Table 5).

In Western and Nyanza Provinces termites damage was the most serious problem which was clearly related to eucalyptus planting and shortage of water/rain was the second most serious. Lack of insecticides or seeds for nursery was also indicated as problems.

In Coast Province lack/shortage of seedlings, animal damage and land shortage were perceived as problems.

In Central Province shortage of water/rain, lack/shortage of seedlings and lack of knowledge and techniques in planting and tending were felt by many people as constraints in tree planting. There were also people who were concerned with land shortage, lack of finance, lack of material for nursery and termites damage.

In Rift Valley Province the most serious concern was with shortage of water/rain and second most serious problems were lack/shortage of seedlings and animal damage. Lack of knowledge and techniques in planting and tending and poor soil were also felt by some as problems.

4.2.3 Subjects of Training Chosen by the People

Fairly different indications were obtained from interviewees by Provinces as follows;

(A) Western and Nyanza Provinces

<u>Subject chosen</u>	<u>Method of training preferred</u>
(a) Social Forestry general (4)	Seminar (1), FEO's (1), r residence (1), printed mater (1)
(b) Planting and tending techniques (4)	KEFRI (1), Workshop (1), printed material (1), near residence (1)
(c) Nursery practices (2)	On-spot (1), printed material (1)

(B) Coast Province

(a) Planting and tending (2)	No indication
(b) Fruit tree grafting (1)	No indication
(c) Social Forestry general (1)	No indication

(C) Central Province

- | | |
|---------------------------------|---|
| (a) Tending (6) | Workshop (4), village meeting (3), near residence (2) |
| (b) Social forestry general (5) | Village meeting (2), printed material (2), seminar (1) |
| (c) Nursery (4) | Workshop (2), village meeting (1), printed material (1) |
| (d) Fruit trees (4) | Training course (4) |
| (e) Planting (3) | Village meeting (2), printed material (2), workshop (1) |
| (f) Agroforestry (3) | Training course (2), printed material (1) |

Seed collection, seedling production from cutting, protection against diseases were also mentioned by one each as subjects of training.

(D) Rift Valley Province

- | | |
|--|--|
| (a) Planting and tending (5) | Printed material (2), workshop (2), field practice (1) |
| (b) Nursery practice (5) | Workshop (4), printed material (1) |
| (c) Social Forestry general (3) | Printed material (2), classes and practice (2) |
| (d) Protection against insects and disease | Printed material (2) |

Land preparation, fruit trees and soil conservation were indicated by one each.

5. Recommendations

5.1 Trainers' Training Needs

5.1.1 High-Ranking Forest Department Field Staff

In some cases contrasting views were found on the current situation in rural tree planting between the high-ranking officers (PFOs and DFOs) and intermediate and lower level field extension staff of the Forest Department.

It might be the case that higher level officials are either unaware of the actual situation or do not like to tell the truth. In any case it is a matter for concern. As indicated by one of the extension staff there seem to be gaps between district, division, location and "grass-roots" level in terms of communication as well as people's motivation in social forestry in the picture of the rural Kenya.

In Kenya a strong political will exists to promote rural tree planting. His Excellency the President's conducting National Tree Planting, the Ministers' giving speeches on social forestry and environmental conservation and other renowned people urging to plant trees are the topics of newspapers and journals almost everyday and this again makes certain contrast with the low levels of activities in the rural areas. In the flow of communication in the national context, if the people's real feeling and actual situation at the "grass-roots" level as filtered and do not reach the policy makers' level, a true success in social forestry development cannot be expected.

The Forest Department high level staff are currently entrusted with dual function, i.e. management of state forests (Forest Reserves) and promotion of social forestry. But by tradition, they are still heavily involved in the former, namely to contribute to macro-economy through the management of the Forest Reserves. Leaving aside the question of possible reorganization in the governmental administrative structure, these high-ranking Forest Department field staff would need more exposure to the future main stream of forestry in the developing countries, that is social forestry development.

5.1.2 Intermediate and Lower Levels Forest Department Field Extension Workers

Three "lack"s were evident; lack of transport, budget and morale in their daily work. Lack of transport and operating budget clearly emerged as constraints during the interviews but lack of morale did not come up except for one case. Still it was clearly seen that their motivation is dampened by lack of career prospects. It would be almost impossible to expect anyone to work with high morale under current conditions such as theirs. Still it was impressive to find that many of them would like to learn more in social forestry and help people more. It must be recognized therefore that training only would not be a panacea to the current problems in developing social forestry in rural Kenya. Training would be effective only when accompanied by strengthening of other means of support i.e. administrative and budgetary support with the establishment of career courses for them. According to their wish, the future training to be designed for the intermediate and lower levels extension workers would include extension techniques, useful tree species and all social forestry techniques covering seed collection, nursery, planting and tending. They must be equipped

with the knowledge of all facets of social forestry techniques, to transfer such know-how to the people.

Regarding the question as to whether or not cooperation with the agricultural extension staff should be encouraged, the survey teams were in favour of strengthening this with the agricultural staff. At present agricultural extension staff are assigned to sub-locational levels (8 provinces, 45 districts, more than 200 divisions, about 1,000 locations and about 3,000 sub-location), while rural forestry extension manpower is allocated to divisional levels.

It would be far more advisable to activate the currently assigned, or being assigned forestry field extension staff with substantive training and financial support than competing with the agricultural sector. The forestry extension staff should be trained in the future so that they can act as subject matter officers specialized in social forestry to support divisional, locational and sub-locational agricultural extension staff but without having any opportunity to make direct contact with the people whenever possible.

5.1.3 Intellectual Group

The group of people interviewed as trainers comprises local intellectuals such as teachers and religious workers. Their views on rural tree planting were most positive and many of them were doing themselves a commendable job in promoting tree planting among rural people. As their main jobs are in different fields, however, to design training activities for this group should remain secondary to the training to be given to the core of social forestry extension in the field i.e. Forest Department field staff. It should be borne in mind that this group is an important ally in promoting social forestry in the rural areas because these people have a close contact with many people and maintain a great influence within the rural community. Therefore a strategy to absorb useful information from them and keep them in the league of efforts for the development of social forestry must be worked out. It would be effective to provide them with printed material, seedlings and so on for themselves and further transmittal to the local people.

5.1.4 Currently On-going Projects

During the surveys, the survey team visited several on-going projects. A particular mention is made for CARE-Kenya Agroforestry Project and Kenya Renewable Energy Development Projects (KREDP).

The CARE-Kenya Project covering an extensive area in Siaya District was carrying out impressive activities at a level very close to the local people. As indicated earlier the people in the CARE-Kenya Project area did not want to plant eucalyptus and were

well exposed to the use, performance and planting/tending techniques of indigenous species. This was a very clear contrast to the neighboring area where people's preference over tree species was strongly towards eucalyptus.

It may be assumed from this that the current on-going campaign for planting of indigenous tree species can succeed only if it is followed up with strong extension efforts and on-the-spot guidance to the people taking advantage of all possible opportunities. It was also felt that, if the people want to plant any species, either indigenous or exotic, they should not be discouraged in the first instance to plant trees of their choice. In many cases in the developing countries people's views have seldom been heard. They are usually told what to choose and what to do without being given a chance to express their felt needs in their daily life. It is obvious that this sort of approach would eventually not succeed. This statement, however, does not discount the achievement of the CARE-Kenya Project and it was commendable that the people's activities were already self-reliant and would continue even after the termination of CARE-Kenya's support.

The activities of KREDP cover the establishment of Agro-forestry Centres in six Locations of Kenya. The centre for Western Highlands is located in Bukura in Western Province. The centre is operating agroforestry research and demonstration farm which is utilized for teaching, demonstration and extension of agroforestry and introduction of fuel-saving cooking stoves and biogas systems in the rural area. The centre is well established under the support of USAID and their extension efforts seem to be quite successful in the neighboring villages. A concern was expressed by some interviewees if the level of activities could be maintained after the termination of USAID support which was imminent.

The assistance of the Swiss Development Support directed to the Rural Afforestation Extension Scheme (RAES) of the Forest Department was seen everywhere. Compared with the other donors assisted projects mostly covering rather limited areas of the country, the characteristics of the Swiss Support were (a) closely integrated with a national institution, RAES, (b) thus dealing with the rural areas of Kenya as a whole. However, magnitude of the support was too small to activate RAES operations in the rural area.

The above projects were described here as the Survey Teams could contact the people concerned of the projects during their trips. It is recognized that these projects represent only a small part of the total national efforts as well as external aid in social forestry development (there are more than 60 institutions and/or projects operating in Kenya including NGOs!). The knowledge and experience, either success or failure, of the past and on-going projects would have to be taken into account in designing the future training activities of the Main Phase.

5.2 Trainees' Training Needs

5.2.1 Willingness of the People in Tree Planting

The fact that all people interviewed want to plant trees is a sign of firm basis to develop social forestry training in rural Kenya. This was a great encouragement to this project embarking on the Main Phase after two years of preparatory operations.

However, the preferred tree species indicated by the people were mostly multi-purpose and showed a strong tendency towards exotics. The survey teams interpreted this as follows;

- (a) The people have not been provided with necessary information about plantation species other than some exotics such as eucalyptus (E. saligna), cypress (C. lusitanica), grevillea (G. robusta) and so on: a reflection of the past forest policy mainly pursued for the establishment of the industrial plantations in the high potential area.
- (b) The people have actually seen that these trees could serve useful purposes including opportunities for commercial production. In the absence of knowledge and experience of planting other species, they immediately opted for known exotic.

As discussed in earlier chapters, they are not to be blamed for their option and their endeavour should first of all be met by providing such endeavoured species. It cannot be over-emphasised that strong extension, efforts and technical guidance must follow up the people's tree planting supplying them with necessary technical information about appropriate species in the various ecological conditions of rural Kenya.

In addition to the tree species already mentioned, the people also wanted to plant fruit trees and ornamental trees. They are obviously an inseparable part of the rural life providing important food, scenic beauty and shade as well. Lines to respond to such requests should be the same as before; help people to plant what they want, and then publicise more appropriate species, if and when applicable, which would better serve their purposes.

5.2.2 Subjects of Training Suggested

As already seen in the trainers' group, the knowledge people want to acquire is not restricted to nursery practices but much wider. They want to know all techniques from seed collection, seedlings production, planting and tending of the species of their choice including fruit trees and ornamentals.

There was an assumption in late 1985 when the Preparatory Phase of this Project was started under the agreement of both GoK and GoJ. It was that the major constraint in promoting social forestry in Kenya was a low level of seedlings production capacity, therefore efforts would concentrate on the upgrading of the capacity through nursery training. The surveys undertaken clearly revealed that this assumption would not work in the actual conditions of rural Kenya, and the subjects of training should be broadened to meet actual requirements.

5.3 Design of the Main Phase

5.3.1 Role of the Muguga National Centre and the Kitui Regional Centre.

The two centres being constructed under the capital grant of GoJ would have different mandates and coverage from where respective trainees are to be called in.

- (a) The Muguga National Centre would be utilized for the training of forestry extension field staff assigned for the country as a whole including high, intermediate and lower levels selecting members depending on the subjects of training. The activities will include also promotional events such as national social forestry seminars inviting both foresters and non-foresters of governmental as well as non-governmental groups operating in rural Kenya. Research and development of selected subjects in social forestry would also be undertaken at national levels. It should be noted that subjects would be decided based on the findings of this report (Ref. 5.1).
- (b) Kitui Regional Centre would carry out social forestry training in more systematic manner inviting forestry as well as agricultural field extension staff, women group leaders, leading farmers and so on. The training activities of the centre would be closely combined with the planning and implementation of the Pilot Forest Scheme to demonstrate social forestry in semi-arid areas.

It should be recognized the integrated activities of the Kitui regional Centre and the Pilot Forest Scheme are the regional undertaking but with a national mandate and the future achievement would be replicated in the semi-arid areas of other provinces.

5.3.2 Area of Concentration

As seen from the results of the survey the main constraint was indicated as shortage of rain/water by the people. This indicates that the future area of concentration during the Main Phase would be the semi-arid area. Therefore the future plans of the Main

Phase would mainly be directed to the semi-arid area i.e. those areas around Kitui in Eastern Province and the Project inputs should be made accordingly.

5.3.3 Training to be Undertaken

The original assumption that training activities in the Main Phase would concentrate on nursery training must be amended and would include techniques of all stages namely seed collection, handling, storage, seedlings production, planting and tending. Furthermore such other subjects as fruit trees, ornamental trees or agroforestry (apiculture foreseen in the Kitui area) would have to be included among the subjects if and when possible. This would mean that the title of the project of the Main Phase would better be called "Social Forestry Training" deleting "Nursery" from the current title.

Annex 1: Questionnaire (A) to Trainers

KENYA/JAPAN SOCIAL FORESTRY - NURSERY TRAINING PROJECT

Survey on Training Needs Date: _____ Time: _____
Name of Interviewer: _____
"Questionnaire (A)
to Trainers" Name: _____
Title: _____
Locality: _____

1. Are you satisfied with the tree planting activities in your locality (Province, District, Location,...)?

(Ask also background; population wood demand, rural economy, social factors, etc.)
 - 1.1 (If replied "YES")
 - 1.1.1 Are there any further improvement measures to be expected? If so, name them.
 - 1.1.2 What, do you think, contributed to make the activities satisfactory?
 - 1.2 (If replied "NO")
 - 1.2.1 What, do you think, are the problems?
 - 1.2.2 What can be done to solve the problems?
2. Have you ever carried out training activities in social forestry?
 - 2.1 (If replied "YES")
 - 2.1.1 What kind of activities were they?

(Ask, when, "Title", source of funds; Number of trainees, target groups, design of training; collect training material if available)
 - 2.1.2 How do you evaluate those activities, (e.g. tangible training results, further improvements expected, etc.)?
 - 2.2 (If replied "NO", and also to the trainers who replied "YES")
 - 2.2.1 Do you feel, any training activities are needed for the people in your locality? If so, please indicate;

- (a) To which target groups (Community leaders, women group leaders, active farmers of the public)?
- (b) What kind of training (seed collection and storage, nursery practices, planting practices, tending practices)?
- (c) How long should be the duration of training, how many should be trained at a time, where should it be held and at what time of the day?
- (d) Any suggestion for the forms of training (field practice, study trip to model area, classroom or else)?
- (e) Also any suggestions for training material (manual for nursery operation, planting and tending; language; photos, drawings, audio-visuals, slides, videos and films; levels of technical know-how)?
- (f) What sort of financial support would be needed (transport, per diem, etc.)?

3. Have you ever received training to carry out social forestry?

3.1 (If answered "YES")

- 3.1.1 What kind of training was it, or were they? Please describe level and form of training, organisers, source of funds, time, duration, training material, etc.)

(Ref. 2.1 and ask also about trainers)

- 3.1.2 How do you evaluate the training you received (e.g. merits of training, suggestions for further improvements)?

3.2 (If answered "NO", and also to those who answered "YES")

- 3.2.1 Do you want to receive training in social forestry (again)?

- 3.2.2 If so, in what subjects (useful tree species, nursery, planting, tending, extension techniques, etc.)?

- 3.2.3 Any suggestions for forms, duration, timing and location of training? (Ref. 2.2.1(e))

- 3.2.4 What kind of support, both institutional and financial, to such training would be needed?

4. Another suggestions?

Annex 2: Questionnaire (B) to People

KENYA/JAPAN SOCIAL FORESTRY - NURSERY TRAINING PROJECT

Survey on Training Needs

Date: _____ Time: _____

Name of Interviewer: _____

"Questionnaire (B)
to People"

Name: _____

Status: _____

Locality: _____

1. Do you want to plant trees?

1.1 (If the answer is "YES")

1.1.1 What sort of trees, for what uses and where?

Trees

Uses

Where

1.1.2 Are you actually planting these trees?

1.1.3 In sufficient number? If not, what are the constraints (availability of seedlings, lands, incentives, etc.)?

1.1.4 Does the tree planting conflict with your farming?

1.1.5 Are you carrying out tree planting activities individually or in groups? If in groups, what kind of groups are they, what arrangements are made in the groups? What kind of special considerations are needed to promote groups activities (suitable size of a group, membership, "Harambee" understandings, etc.)?

1.2 (If the answer is "NO")

1.2.1 Will you let us know why?

2. Do you have any problems in planting trees? If so, please name them and indicate possible solutions.

Problems:

Possible solutions:

3. (In addition to answers to 2.) Do you have any subjects regarding tree planting you want to learn? If so, in what form (printed material, village meeting, workshop, etc.)?

Annex 3: A List of People Interviewed

A: Trainers' Group:

1. Western Province, Nyanza Province

P.W. Wamahui,	District Forest Officer, Kakamega
K.K. Kolongei,	Extension Forester, Kakamega
M.M. Kamau,	Extension Officer, Kakamega
J.N. Kariuki,	Extension Forester, (RAES) Kakamega
M.M. Akunda,	Acting Provincial Forest Officer, Nyanza
Remko B. Vonk,	Agroforestry Project Manager, CARE (Netherlands)
J.M. Gicheha,	District Forest Extension Officer, Siaya
J.B. Owoko,	Assistant Teacher, Rang'ala Boys' Primary School
C.K. Mwawasi,	RAES Forester, Kisumu

2. Coast Province

M. Mahelo,	Divisional Forest Extension Officer, Voi
T.O. Changamu,	Forester, Taita Forest Station
E.O. Ochieono,	Divisional Forest Extension Officer, Taveta

3. Central Province

Samuel K. Sang,	Forester, Kicharu Division, Murang'a
Antony N. Githitho,	Assistant District Forest Officer, Nyeri
Peter M. Angaine,	Forester (Tree Seed Bank) Nyeri
M. Muchai,	Assistant District Forest Officer, Nyeri
Daniel G. Kangethe,	Headmaster, Mukurweini Division, Gathukimundu Primary School

J. Nzoo Mungai,	District Forest Extension Officer
E.N. Mittunyo,	District Forest Extension Officer, Nyeri

4. Rift Valley Province

M. Mweiya,	District Forest Extension Officer, Eldoret
J.M. Kibuika,	Divisional Forest Extension Officer, Uasin Gishu
T.S. Banda	Assistant District Forest Officer, Eldoret
S.K. Mureithi,	Forester, Kaptagat Forest Station, Uasin Gishu
K. arap Ng'otir,	Forester, Sabor Forest Station, Uasin Gishu
J.C. Kinyua,	RAES Forester, Nandi
D. Mbugua,	District Forest Officer, Nandi
H.K. Jumba,	Divisional Forest Extension Officer, Ainabkoi, Uasin Gishu
M.K. Wamwiri,	Divisional Forest Extension Officer, Baringo
S. Karega,	Assistant District Forest Officer, Baringo

B: Trainees' Group:

1. Western Province, Nyanza Province

Wilson Abura,	Farmer's employee, Isukha, Kakamega
Henry Munyasa,	Farmer, Kolomani, Kakamega
Daniel Amugani,	Leader, Self-help group, Solongo, Kakamega
Wilson Peru,	YMCA Programme Secretary, Chevakali, Kakamega

Longinus O. Awich,	Farmer/School Chairman, South Ugenya Rang'ala, Siaya
(Ms) Martilda Atieno,	Farmer, Nyasanga Siaya
Dalmas Owich,	Farmer/Forestry Technician, Siaya
Nehemiah Okoth,	Farmer/Shopkeeper, Komolo, Siaya
(Ms) Angelina Onyimbo,	Farmer's widow, Koyeyo, Siaya
Gilbert Owako,	Farmer, Agulu School, Siaya
Cosmas & Angelina,	Farmer and his wife, Osala, Karpul, Siaya
Barrack Were,	School teacher/farmer, Nyandiwa, Siaya

2. Central Province

Paul M. Ngatia,	Farmer, Kahuro, Murang'a
Danis Maina,	Farmer, Murang'a
David Gachiriro,	Farmer, Murang'a
(Ms) Cecilia Wairimu,	Farmer, Nyeri
(Ms) Perci Wanjiru,	Farmer, Nyeri
Willy J. Kimani,	Farmer, Kahuro, Murang'a
E. Githinji,	Farmer, Murang'a
Gakero Samson,	Farmer, Kahuro, Murang'a
John M. Njunguna,	Teacher/farmer, Kangema, Murang'a
J.N. Mwenda,	Shopkeeper, Mbiri Bookshop, Murang'a
Patrick Murigi,	Farmer, Murang'a
Simon Kahura,	Farmer/Government employee, Murang'a
Ezekiel Mwingi Thioneo,	Farmer/Government employee, Murang'a
Steven Njonjoro,	Farmer/Local Admin. Official, Murang'a
M. Mwenda,	Shopkeeper, Murang'a

Rhuplus Macharia,	Farmer/Government employee, Murang'a
(Ms) Ruth Wamuya Mubea,	Farmer, Mweiga
Joseph Kangara,	Nursery foreman, Poultry Women's group, Mwiga
Musa Mathenga,	Farmer/Nursery foreman, Mukurweini
(Ms) Rachel Muthoni,	Leader, Women's groups, Mweiga
(Ms) Esther Wanjiko,	Leader, Women's group, Karatina

3. Coast Province

Polycarp Maganga,	Headmaster, Primary School, Voi
(Ms) Violet Mugo,	Farmer's wife, Wundani
Elizabeth Muwatee,	Farmer's wife, Wundani
Kitabi Terere,	Farmer, Kwalwa, Taveta
Joachim M. Kichikiro,	Farmer, Taveta
Peter J. Nguluma,	Farmer, Kwalwa

4. Rift Valley Province

John K. Koech,	Farmer, Moiben
B.M. Mbizi,	School Headmaster, Moiben
J.K. Kibogy,	Farmer, Kaptagat
(Ms) Paulina Koskei,	Farmer's wife, Kaptabougen
(Ms) A.N. Wambari,	School teacher, Kaptagat
James Mongo,	Deputy Headmaster, Kaptabougen
(Ms) Carolina Ruto,	Shopkeeper, housewife, Ngembokuryo
A. Tega Kiptelo,	Farmer, Kapsabet
(Ms) Ana Arusei,	Farmer's wife, Chenundu
(Ms) Jennifer Lagat,	Women group leader/housewife, Eldama Ravine
David Tauni,	School teacher (retired), Eldama Ravine

(Ms) Daisy Tallam,	Farmer's wife, Baringo
(Ms) C. Rotich,	Government Official's wife, Baringo
Peter Amdany,	School teacher (retired), Eldama Ravine
Jopheth K. Chamnjor,	Farmer, Eldama Ravine
Jerry Bargoge,	Farmer's son/student, Eldama Ravine

