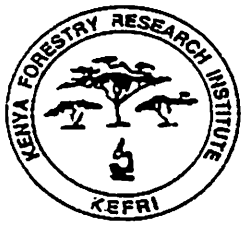

KENYA FORESTRY
RESEARCH INSTITUTE
(KEFRI)

JAPAN INTERNATIONAL
COOPERATION AGENCY
(JICA)

COURSE REPORT

Third Country Training Programme in Kenya

4TH REGIONAL TRAINING COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

October 1999

COURSE REPORT

4TH REGIONAL TRAINING COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Compiled by

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Kenya Forestry Research Institute (KEFRI)
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October 1999

PREFACE

The African continent is facing various social, economic and environmental problems. The East, Central and Southern African countries face similar problems. The development approach in most of the countries in this region take a sectoral approach and it is only recently that there has been a shift to a more broad based and multi-sectoral approach to development. This has created an immense need for personnel who can handled development issues in an integrated and multi-disciplinary manner. This has created an immense need for personnel who can handle development issues in an integrated and multidisciplinary manner. The shift toward integration has also been a general shift towards a more participatory approach to training, research and development. These has been manifested in the change in government policies towards a more people-driven and broad based development packages. Social forestry has found a niche in trying to alleviate some of these problems and to help improve the livelihoods of people in Africa and especially the vulnerable members of the society.

It is against the above background that the Kenya Forestry Research Institute(KEFRI) with support from the Japan International Co-operation Agency (JICA) found it prudent to develop the "Regional Training Course for the Promotion of Social Forestry in Africa. This course started in 1995 following a training needs assessment in countries in East, Central and Southern Africa. The 4th Regional course was held from 4th October - 6th November 1998.

The course attracted 20 participants from 10 countries namely: Botswana, Ethiopia, Lesotho, Malawi Mozambique, Namibia and ,Tanzania, Uganda, Zambia and Zimbabwe,

The course organizers wish to thank all the people who made the implementation of this course possible, notably JICA for the financial support, KEFRI research scientists and technical staff, various government ministries, Development Agencies and the hard working farmers visited for interaction with course participants and organizers.

TABLE OF CONTENTS

1.0 COURSE SUMMARY

1.1 Administration

(1) Course Title

"Regional Training Course for the Promotion of Social Forestry in Africa"

(2) Duration

4th October - 6th November 1998

(3) Objectives

At the end of the course, the participants are expected to have:

1. fully understood the concept of Social forestry and its usefulness in enhancing forest conservation and mitigating desertification in the region.

2. developed their abilities in policy formulation to promote Social forestry which enable the application of Social forestry strategy to various local conditions of participating countries.

3. learnt effective measures to be taken to disseminate the practice and related techniques of Social forestry to farmers and other beneficiaries.

4. re-developed their abilities to resolve problems in the promotion of Social forestry by expanding their knowledge and techniques and by exchanging experiences, among participants from other countries.

2.0 COURSE IMPLEMENTATION

2.1 *Introduction*

The Kenya Forestry Research Institute (KEFRI) has since inception in 1986 continued to strengthen its capacity to do research and disseminate appropriate technologies. The Institute has continued to play a leading role in a number of forestry disciplines, particularly Social forestry.

Since its inception in 1986, The Social Forestry Training Project (SFTP) has been in the fore-front of human resource development in social forestry in Kenya. It was with this achievement that the SFTP decided to widen its experiences and activities across the boarders in 1996, hence the conception of the course entitled "The Regional Course For The Promotion Of Social Forestry In Africa". To-date, 79 participants from 12 countries of East central and southern Africa, have been trained.

The Kenya Forestry Research Institute (KEFRI) and SFTP are grateful for the support received from the people and government of JICA and the government of Kenya through the Ministry of Research Technical Training and Technology (MRTTT).

Social forestry is one of KEFRI's priority programmes that, through the Kenya/Japan Social Forestry Training Project (SFTP), has facilitated the enhancement of awareness, knowledge, operational skills, initiatives in technology development through attitude and local involvement of the beneficiaries. This has been realized through organized Pilot forest activities and short-intensive in-service training courses, workshops and seminars for a broad spectrum of participants. Training has been carried out at local, national and currently regional levels. As a result of experiences accumulated at national level, a pool of readily available experienced resource persons, availability of modern training facilities, and the common development needs among African, countries to mitigate land degradation and improve the living standards of the rural communities, SFTP initiated through the Third Country Training Program entitled, "Regional Training Course for the Promotion of Social Forestry in Africa". The Regional Training Course is seen as unique in the sense that it has enormous potential to facilitate the preparedness to take Africa across to the new century. This has been made possible with the financial support of the Government of Japan through Japan International Cooperation Agency (JICA).

2.2 *Course Objectives*

The 4th Regional training course for the promotion of Social forestry in Africa like the two previous ones had the objectives that the participants would at the end of the course to have:

- fully understood the concept of Social forestry and its usefulness in enhancing forest conservation and mitigating decertification in the region.

- developed their abilities in policy formulation to promote Social forestry which enable the application of Social forestry strategy to various local conditions of participating countries.

- learnt effective measures to be taken to disseminate the practice and related techniques of Social forestry to farmers and other beneficiaries.

- enhance their abilities to resolve problems in the promotion of Social forestry by expanding their knowledge and techniques any by exchanging experiences, among participants from other countries.

The course evaluation revealed that the participants felt that these objectives were met. They also expressed a strong feeling for the formation of a regional Social forestry network in order to enhance sharing of experiences and challenges toward Social forestry promotion.

2.3 *Course Participants and Resource Persons*

The 4rd Regional Training Course was attended by (21) participants. As summary of the country representations is to-date as presented in table 1.

Table 1. Attendance by country per year.

Country	1st Course	2nd Course	3rd Course	4th course	Total
Angola	-	-	-	-	-
Botswana	3	1	1	1	6
Ethiopia	3	1	3	2	9
Lesotho	-	1	2	2	5
Malawi	2	2	-	1	5
Mozambique	-	1	-	2	3
Namibia	-	2	2	-	6
South Africa	2	2	3	-	10
Swaziland	1	1	-	-	2
Tanzania	2	2	3	5	12
Uganda	3	1	1	2	7
Zambia	2	2	3	3	10
Zimbabwe	2	2	3	2	7
TOTAL	20	18	21	20	79

There were no representation from South Africa and Malawi since the two countries submitted their applications very late despite the fact that the application forms had been sent by DHL at least 3 months before the selection date. The total number of applications received (including the late applicants was 32 (Table 2).

It is evident that such diversity in the backgrounds of participants from different countries served to enrich knowledge sharing between them and those who they interacted with during the course

Table 2. **Number of Applicants and Selected applicants**

Invited Countries	Number of applicants	Number of selected applicants
Botswana	1	1
Ethiopia	8	2
Lesotho	3	2
Malawi	2	1
Mozambique	2	2
Tanzania	7	5
Uganda	5	2
Zambia	3	3
Zimbabwe	5	2
South Africa	4	0 (arrived late)
TOTAL	37	20

Table 3. List of Participants by professions and organizations

No.	Name	Sex	Age	Organization and Post	Academic Background
1	Gaseratwe Keforilwe	M	40	Sen. Forester, Min of Agric, Botswana	Bsc. Agroforestry
2.	Girma Bekele	M	24	Section Head, Forest Consv. Menagasha Suba For. College, Ethiopia	Dip. For.
3.	Gessesse Dessie	M	35	Lecturer/Research off. Wondo Genet Forestry College, Ethiopia	Msc. For
4.	Khotso Paul	M	38	Forester, Min of Agric. Lesotho	Dip. For.
5.	Silas Moshuli	M	38	Ext. Technician, CARE, Lesotho	Dip. Adult Edu.
6.	Chidyera Patricia	F	27	Forestry Officer, Malawi College of Forestry	Bsc. Agri.
7.	Custodio Dimande	M	33	Technician, Min of Agric. Mozambique	Bsc. For.
8.	Silverio Diomba	M	46	Agric. Technician, Min of Agriculture, Mozambique	Bsc. For.
9.	Ndhokero Juma	M	31	Lecturer, Nyabyeya Forestry College, Uganda	Bsc. For.
10.	Turyahabwe Nelson	M	28	Agroforestry Asst. Africa 2000 Network, Uganda	Msc. For.
11.	Severina Mathias	F	40	Forestry Tech. Lushoto Silvi. Research Centre, Tanzania	Dip. For.
12.	Joseph Kigula	M	42	Extension Off. Forestry and Beekeeping, Tanzania	Bsc. For.
13.	Kanauchasia Kimaro	F	39	Extension Off. Forestry and Beekeeping, Tanzania	Dip. For.
14.	Mussa Makono	M	44	Officer/Tutor, Olmotonyi forestry Inst, Tanzania	Dip. For.
15.	Dinah Omondi	F	38	Forestry Ext. Off. Min of Env. Natural Res & Tourism, Tanzania	Dip. For.
16.	Kennedy Kambeu	M	40	For. Ext. Off. Min. Of Env and Natural Res. Solwezi, Zambia	Bsc. Zoology

17.	Ivory Masafwa	M	36	National Co-ordinator, PFAP. Zambia	Bsc. Agroforestry
18.	Chiposo Humphrey	M	29	Forestry Technician, Land Management and Conservation, Zambia	Dip. For.
19.	Pikirai Emmanuel	M	39	Agric. Officer, Dep of Agric. Technical & Ext. Serv., Zimbabwe	Dip. Agric.
20.	Tryphine Chengatayi	F	31	Natural Res. Off. Department of Natural Res,. Zimbabwe	Dip For.

2.4 Course Curriculum

The summary of the specific topic present are as shown in table 4. The detail course programme is presented as appendix 5.

1) Introductory concepts

* Introduction/Programme Review
* Social Forestry Development Overview
* Introduction to Social Forestry Concepts and Practices
* Introduction to Agroforestry Concepts and practices
* Policy and Social Forestry Development
* Social Forestry Development Strategies - an African Perspective

2) Development

* Classification of Agroforestry Technologies and Practices
* Tree Seed Production, Collection, Processing and Handling
* Social Forestry Nurseries, Establishment and Management Techniques
* Tree Species for Social Forestry Development
* Appropriate Tree Establishment Techniques
* Appropriate Tree Management Techniques
* Woodfuel Production, Consumption and Conservation Systems
* Pest Management in Social Forestry Systems
* Disease Management in Social Forestry Systems
* Small-scale Social Forestry Industries, Products and Services
* Adaptive on-farm Agroforestry Research And Development

* Micro-enterprise Development In Social Forestry
* Micro-enterprise Financing And Credit Management

3) *Application*

* Socio-cultural and Economic Issues in Social Forestry Development
* Gender Issues in Social Forestry Development
* Negotiations and Conflict Management For Sustainable Social Forestry Development
* Rehabilitation and Integrated Management of Degraded Areas
* Integration of Land Use Systems for Social Forestry Development
* Silvipastoral Management Strategies in Grazing Areas
* Social Forestry Extension Surveys and Appraisal Methods
* Research-Extension-Farmer Linkage Mechanisms
* Framework for Planning and Management of Participatory Social Forestry Projects
* Social Forestry Extension Strategies
* Local level Communication Networks
* Psychology of Adult learning and Development
* Participatory Woodland Management in Dryland Ecosystems
* Planning and Designing of Social Forestry Training Programmes
* Leadership Skills for Social Forestry Development
* Monitoring and Evaluation of Community oriented Programmes

4) *Support*

* Presentation of Country Reports
* Case Study: Social Forestry Training Project (Kitui)
* Case Study: PRA, Egerton University
* Case Study: Maseno On-farm Agroforestry (Maseno)
* Case Study: Bamburi Portland Farm Project (Mombasa)
* Case Study: Kaya and Mangrove Conservation (Kwale)
* Presentation of Group Work and Summary
* Field Visits/Study Tour Reports and Summary
* Course Evaluation

As before, the course contents were generally comprehensive and sequentially spread across the four broad course objectives or themes, namely; introductory, development, application and supportive disciplines. A few (2) topics were added and 2 slightly modified .

2.5 *Course Structure*

The course involved lectures, practicals, demonstrations, discussions and field visits, . A discussion approach was emphasized than in the previous Regional courses to facilitate practical problem solution for the diversity of the countries' Social forestry challenges.

The previous field visits sites were maintained, but with slight modifications to emphasis on the critical training needs and the challenges pointed out during the country presentations.

Resource persons

Resource persons were drawn from:
Kenya Forestry Research Institute
Forestry Department
Egerton University
Kenya Community Media network
United states International University (USIU)
Kenya Marine and Fisheries Research Institute
International Centre For Research in Agroforestry

2.6 *Course Evaluation*

Three different modes of evaluation were employed.

1 These included *Extra Evaluation Form* which basically gave a feedback on the performance of each resource person.

2 The *General Course Evaluation Form* to asses logistical and immediate impact of the training

3 Further discussions during the course (day-to-day discussions and session reviews as well as the a free 30 minute discussion during the course evaluation session.

Bellow is the analysed summary of the generall course evaluation

QUESTIONNAIRE FOR THE COURSE EVALUATION

(AFTER COURSE)

I. OBJECTIVES

The course objectives are as follows;

At the end of the course, the participants are expected to have;

1. fully understood the concept of social forestry and its usefulness in enhancing forest conservation and mitigating decertification in the region.
2. developed their abilities in policy formulation to promote social forestry which enables the application of social forestry strategy to various local conditions of participating countries.
3. learnt effective measures to be taken to disseminate the practice and related techniques of social forestry to farmers and other beneficiaries.
4. redeveloped their abilities to resolve problems in the promotion of social forestry by expanding their knowledge and techniques and by exchanging experiences among participants from other countries.

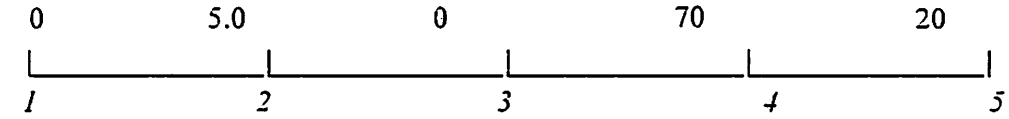
(1) To what extent were you aware of the objectives of this training course before you came to Kenya ?

**** Please circle the appropriate rating number.***
(same for the following questions)

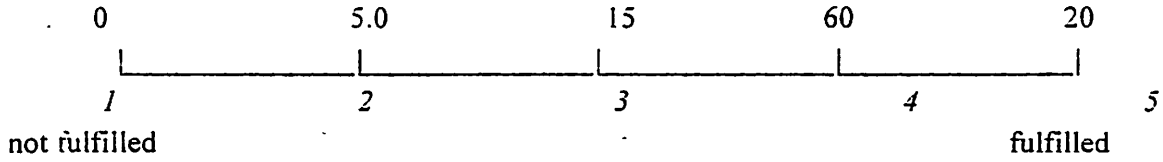
5.0	20.0	25.0	25	25.0
1	*2*	*3*	*4*	*5*

unaware at all — fully aware

(2) To what extent do you think the objectives have been met ?



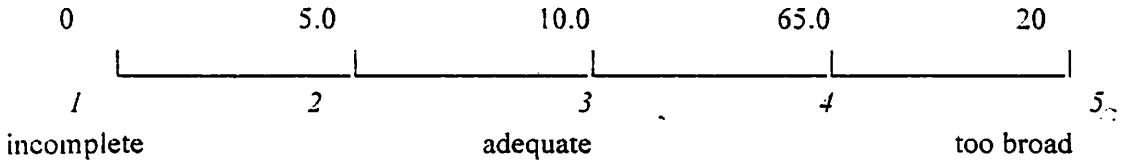
(3) In your opinion to what extent was your expectation from this course fulfilled ?



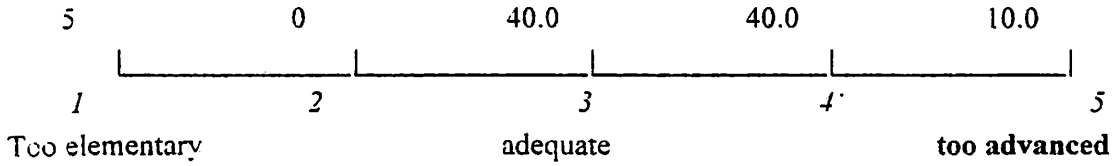
Comments
The study visits were well planned
Need to allocate more time to some lectures ie PRA
All objectives were met fully although one lecture was not covered

II. COURSE CURRICULUM

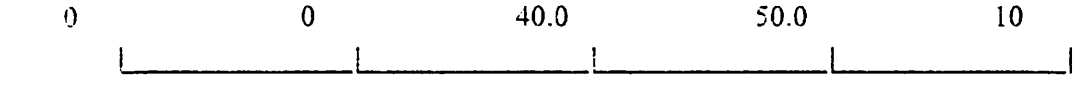
(1) Coverage of the topics



(2) 2 Level of lecture



(3) Coverage of the topics



1	2	3	4	5
poor		adequate		excellent

Please select the three (3) most interesting and beneficial topics for you in the training programme.

Introduction to Social Forestry Concepts and Practices (4)
Social forestry development strategies - an African Perspective (5)
Tree Seed Production, Collection, Processing and Handling (6)
Tree Species for Social Forestry Development (2)
Pest Management in Social Forestry Systems (2)
Adaptive on-farm Agroforestry research and development (2)
Micro-enterprise development in social forestry (6)
Micro-enterprise financing and credit management (6)
Socio-cultural and Economic Issues in Social Forestry Development (9)
Negotiations and conflict management for sustainable Social Forestry Development
Research-Extensionist-Farmer Linkage Mechanisms (5)
Framework for Planning and Management of Participatory Social Forestry Projects (1)
Psychology of Adult learning and Development (11)
Participatory woodland management in Dryland Ecosystems (2)
Planning and Designing of Social Forestry Training Programmes (5)
Leadership Skills for Social Forestry Development (9)
Field trips (11)

(4) Time allocation to:

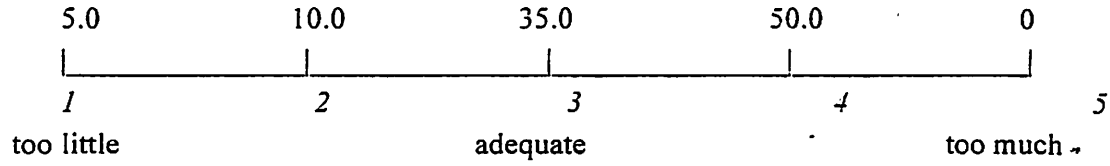
(a) Lectures

5.0	0	75	20	0
1	2	3	4	5
too little		adequate		too much

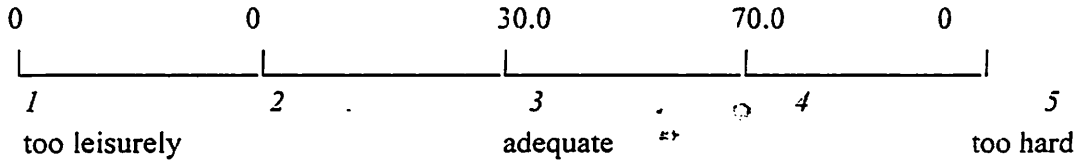
(b) Study tour / Field visit

1	2	3	4	5
too little		adequate		too much

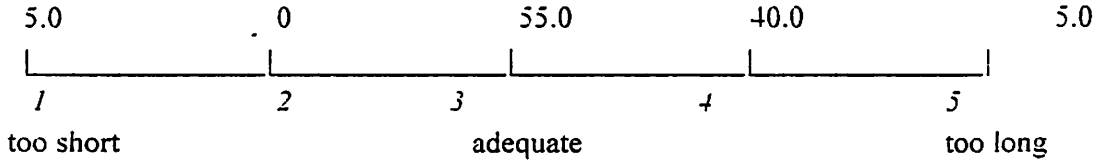
(c) Discussions



(5) Intensity



(6) Total duration



Comments

Facilitators should give more time to discussions (3)

Reduce time on lectures

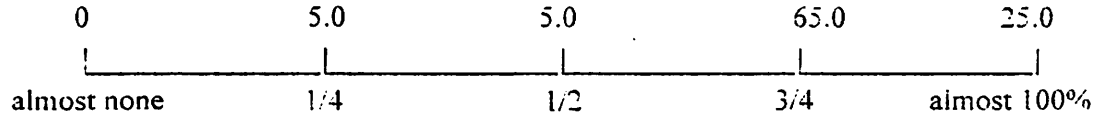
Some topics eg nursery techniques should be substituted since we do this type of work everyday in our work situation

Delivery of the information was logical and allowed participation (3)

Study tours were excellently arranged (2)

(7) Application of techniques and knowledge

To what extent do you think the techniques and knowledge you have attained in this course will be applicable in your country ?



COMMENTS

My country saheres the same problems and challenges with Kenya and therefore everything I learnt is very applicable.

Very applicable (2)

The course is very relevant.

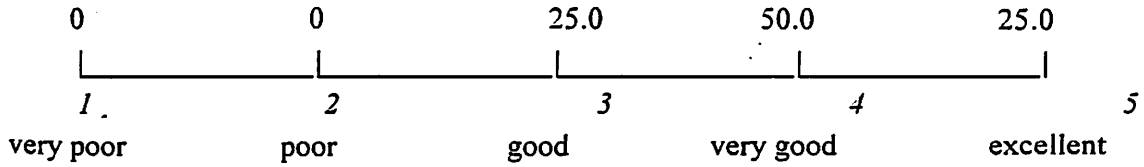
Resources affording, this course should be made open to all the countries in Africa

Community development, Marketing and microe-enterprise development are cvery crucial aspects and need to be emphasized in the course

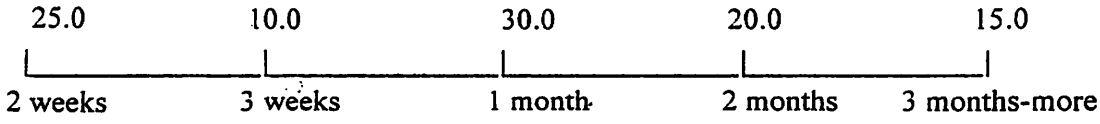
III. ADMINISTRATION AND MANAGEMENT

How would you evaluate the general administration and management of the course ?

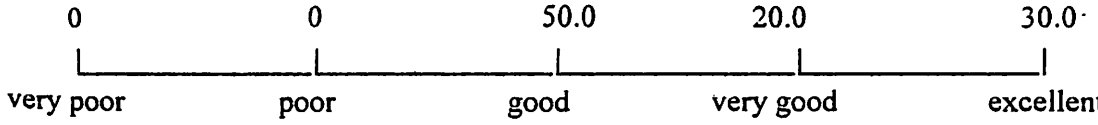
(1) Pre-course information ("General Information", briefing, orientation)



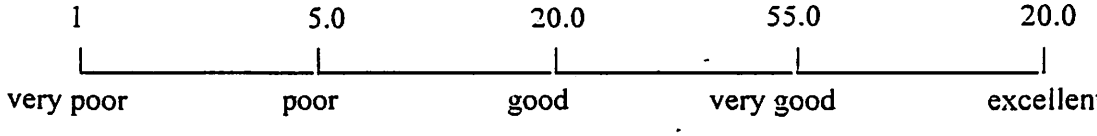
(2) What is the minimum period you would require for preparation of the course after receipt of the invitation letter ?



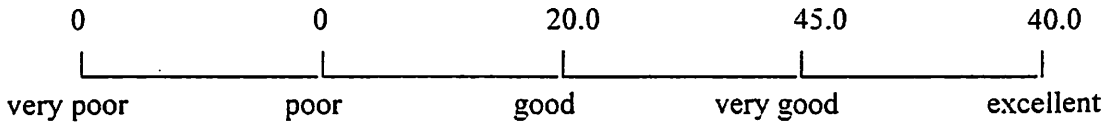
(3) General coordination for the course conduct;



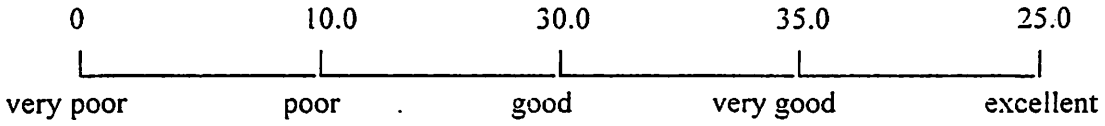
(4) Arrangements for the study tour and field visits;



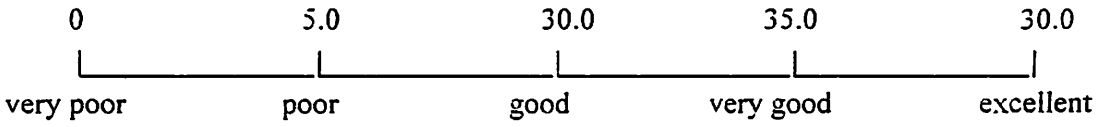
(5) Accommodation in KEFRI;



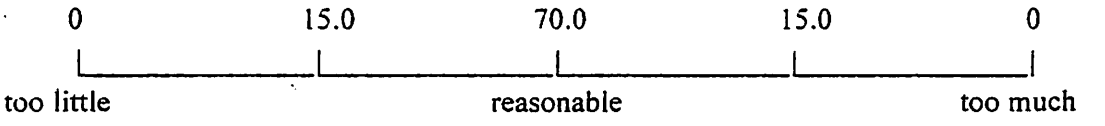
(6) Accommodation during the study tours;



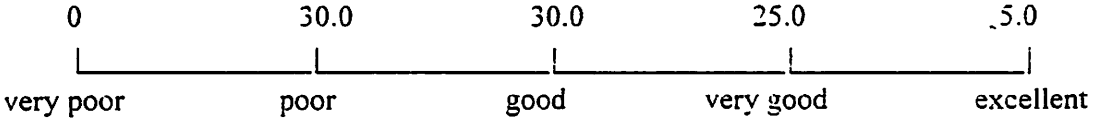
(7) Meals in KEFRI;



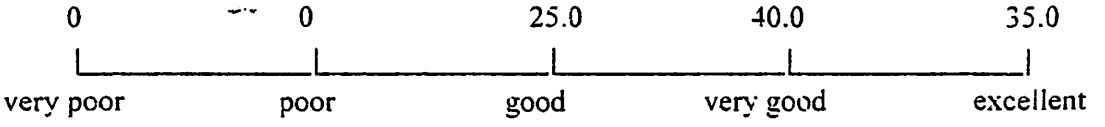
(8) Allowance;



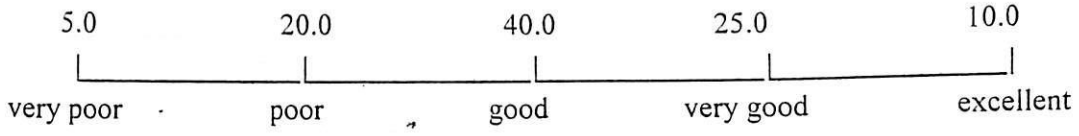
(9) Social programme and weekend programme;



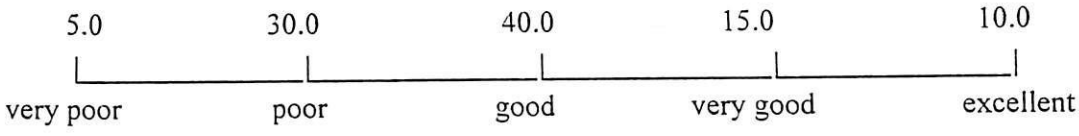
(10) Communication among the participants;



(11) Laundry



(10) Entertainment



Comments

Laundry charges are abit high

Drivers punctuality wanting

General Comments

Study tours were well planed but reduce monotony especially in the western side

The course administration was perfect but the resource persons kept letting the organizers down with time keeping.

Generally I enjoyed the course and the friendliness of the course management staff .... (illegible) to the course particularly their tolerance.

The course was well organized and wonderful

Issues that emerged in the evaluation discussion

- Increase the course duration to 6 weeks.
- Have Kenyan participants (at least two).
- Have more sessions on Micro-enterprises and related subjects.
- Games facilities are inadequate. Interactions with staff in informal situations like games could increase our understanding of the community.
- Staff should be encouraged to stay near the Training centre so as to increase their contact time with the participants, especially in the evening.

2.7 comments by the host institution (KEFRI)

Participants

The different backgrounds of the participants helped achieve very provocative discussions on a wide variety of subjects. The participants were also very keen to learn as indicated by their punctuality and seriousness to class work and related activities.

The participants also exhibited a high sense of maturity, tolerance, understanding and cooperation not just within themselves but also with the organizers, KEFRI staff and the Resource persons.

There was a test addition of two sessions relating to marketing and micro-enterprise development in rural areas. This was after it was felt that one of the impediments to social forestry adoption could be related the cash income especially in the rural areas. As the course evaluation above indicates, the participants felt that this particular course area should be emphasized. Perhaps in future, a module on enterprise development and social forestry could be incooperated in the course.

Course Administration

A small hitch was experienced in the release of funds which came two weeks after the course had started. However due to the commitment of Directorate of KEFRI, and the understanding of the participants, the course programmes were not affected in any way.

However, it is preferable that this is avoided in future as much as possible.

In summary, the course was successfully implemented, thanks to the moral, financial and material contributions of the two governments of Kenya and Japan through their agencies ie KEFRI and JICA respectively.

It is our sincere hope that this cooperation continues for the mutual benefit of not just the two countries but for other countries as well as shown in this regional course programme.

APPENDICES

APPENDIX 1

speeches at opening ceremony

WELCOMING REMARKS
BY
Dr. P. K. Konuche (Director, KEFRI)

The Minister for Research and Technology,
The Permanent Secretary,
The Resident Representative, JICA
The Chief Advisor. SOFEM,
Participants of the Regional Course,
Ladies and gentlemen,

It is my great pleasure and honour to welcome you all to this 4th Regional Social Forestry Training Course. We are proud in KEFRI to be associated with this important program which started three years ago. In the past three years. about 60 participants have attended the course. The participants in the current course are drawn from 9 countries namely: Botswana. Ethiopia, Lesotho, Malawi, Mozambique, Tanzania, Uganda. Zambia and Zimbabwe.

The course has brought together practitioners in the fields of forestry and agriculture to exchange their ideas and experiences in Social forestry. In this course. as in the previous ones, Resource Persons are mainly KEFRI Scientists. The forum therefore provides an opportunity for our Scientists to learn what goes on in forestry development outside Kenya . For example, last year, we learnt that most countries in the eastern, central and southern Africa share the same forestry problems and challenges as Kenya. I would like to highlight two of these.

First. the rapid human population growth has resulted in shrinking of forest land. In Ethiopia, for example. the land covered by forests has declined to 2.9 percent of the total land area just like Kenya.

Secondly. the direct and indirect benefits provided by forests have been undervalued and underestimated in all our countries. This has resulted in not only low allocation of public funds to forestry. but also low public appreciation of the role of forestry in socio-economic development.

Honourable Minister, in our priority setting workshop held here last year, the issue of quantifying forest benefits ranked high within our Natural Forests Research Programme. It is therefore an issue that requires regional approach through collaborative research.

There are also positive aspects of Social forestry development which we have learnt through this course. For example in Botswana, Social forestry is promoted through schools, where forestry and environmental education are introduced at standard four level.

Ladies and Gentlemen, I would like to express our gratitude to JICA for supporting this course. To the participants, I wish to thank you for your effort to come here and share your experiences with us, Please feel at home during your stay in KEFRI.

Thank you

OFFICIAL OPENING SPEECH
BY
HON. ENGINEER ANDREW KIPTOON, M.P. AND
MINISTER FOR RESEARCH AND TECHNOLOGY
ON THE OCCASION OF THE OFFICIAL OPENING OF
THE FOURTH REGIONAL TRAINING COURSE
FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA,
AT KEFRI MUGUGA ON 5TH OCTOBER 1998 AT 4.00 P.M.

JICA Resident Representative,
Director, KEFRI,
Course Participants,
Distinguished Guests,
Ladies and Gentlemen,

It gives me great pleasure to be with you this afternoon on the occasion of the official opening of the Fourth Regional Course for the Promotion of Social forestry in Africa.

I would like to take this opportunity to welcome all our visitors from different parts of Africa to Kenya. Feel free among your brothers and sisters. and take advantage of this opportunity to create and promote beneficial connections for the benefit of the African motherland.

Introduction

Ladies and gentlemen, Kenya is proud to have been associated with the Social forestry Program since 1988. During this period, the program has carried out intensive training and research for the benefit of Kenyans in the effort to eradicate poverty and bring the forest industry within the grasp of our ordinary citizens.
We now feel honoured to be able to share our experiences and knowledge with our brothers and sisters in this part of Africa.

Through organizing courses such as these, we also hope to establish an intra-continental dialogue between ourselves and tap the fountain of knowledge available in forestry development in various parts of Africa.

We appreciate strides made by our sister countries in soil and biodiversity conservation, and look forward to incorporating some of these novel ideas and strategies into our forestry programmes.

We particularly look forward to discussions of reports from various countries in the course of the training.

Objectives

I note with appreciation that the objectives of the Fourth Regional Training Course are to

- bring out the full meaning of Social Forestry in enhancing forest conservation and thereby mitigating decertification.
- develop abilities in policy formulation for application of Social forestry strategies on various local conditions of participating countries.
- broaden knowledge and enhance effective communication between policy makers and farmers on the ground.

I wish to emphasize here that, whereas the course objectives are well formulated and broad based, it is the application of the objectives and policies at the ground level that has many times proved most elusive and frustrating. This, therefore, calls for a drastic overhaul of strategies. Development and extension agents must change their thinking and recognize that people are the key factor to success. We should avoid imposing external policies on people in the name of improving their lot. People must be allowed to participate in policy formulation and adaption in order to derive satisfaction in decision making. We should be willing to learn from the wealth of traditional knowledge and folklore or listen to local advice and improve or adapt to existing situations.

We should not let our efforts be clouded by our perception of people's problems but must come down and learn how to properly identify people's needs to foster rapid adaptation and accelerate the pace of development. Whereas, pastoral nomads appear to cover vast areas of land in the search for pasture, land ownership is not their immediate problem.
Their immediate concern is pasture and water, and for these they will cross boundaries in total disregard of established protocols of migration.

In the same breath, Ladies and gentlemen, communication between policy makers and farmers is a very important catalyst to development. This is because the woman and the man on the farm are the factors that determine the efficiency of our overall development strategies. In simpler terms, these are the people who must grow enough food, plant enough trees and sustain their efforts beyond

tomorrow into the next century. It is important to bring their conceptualization of life into our whole spectrum of the communication dialogue.

Kenyan Experience

I am informed, Ladies and gentlemen that part of the course will involve a field tour of different parts of Kenya. I would not have wished for anything better. The tour will give you first hand information of our geography and accord to you a practical introduction into the people's efforts and the problems that we have to cope with on a daily basis.

The population of Kenya is fast approaching 30 million people. Twenty five percent (25%) of this population occupies 75% of the country. The remaining 23 million people are densely concentrated on 25% of the total land mass. This is the area with good rains, fertile sold and properly developed road network. The remaining 3/4 of the country ranges from semi-arid to arid and is mostly inhabited by pastoral and nomadic populations. Owing to a rapid population growth and socio-economic changes taking place in our country, population movements have now shifted to semi-arid lands and the dangers of desertification have become real.

As we cannot prevent our people from settling wherever they want, one of our efforts to conserve both our people and our environment has been through Social forestry and farm forestry. Our activities in this area started in 1986 when the Kenya Government mandated the Kenya Forestry Research Institute (KEFRI) to administer a National Social Forestry Programme in collaboration with Japan International Cooperation Agency (JICA). After 12 years of continuous work, we are happy to report that KEFRI has made great strides in Social forestry development.

These achievements fall under three key areas, namely:

- Training;Establishment of a Pilot Forest Scheme, and forestry Extension
  I am informed that the organizers of this course have made the achievements realized on this project the basis of the Regional Training Course.

Appreciation

May I take this opportunity to thank the Japanese Government for their material and financial support of the Social forestry programme and for extending the support to the Regional Course for African countries. Through JICA, the Government of Japan has helped us to develop expertise and modernize facilities for this and other forestry research and development activities.

Opening

Course participants, you have a lot of business ahead of you and I would urge you to embark on your five week course with objective and open minds. Look at all aspects of your training critically to bring out the best strategies and skills. I look forward to your end of term report which will form part of our objectives in mounting other courses and in identifying forestry research priorities.

With these few remarks, Ladies and gentlemen, it is my pleasant duty to declare the Fourth Regional Social Forestry Course officially open.

APENDIX 2

GROUP DISCUSSIONS
GROUP ONE

GROUP DISCUSSIONS

Objective: To provide an avenue for sharing of experiences and problem solution on pertinent issues affecting Social forestry and related disciplines.

Operations: The group each with a topic
(S)elect a chairman/rapporteur
Group discusses topic during group discussion
Group presents results of their discussion at panel discussion the following day
Each presentation will take 30 minutes including, question(s)/answer(s) session and/or comments.

Written submissions from each group are expected (at least 3 pages)

FORESTRY DEVELOPMENT IN THE REPUBLIC OF TUMLEZ

Principles:

- No legal obligation to develop Tumlez
- Offering only assistance to supplement on Government and community efforts
- Will operate within existing Government policy
- will operate in a specific area for a specific time schedule and with specific budget.

WHAT IS THIS FORESTRY DEVELOPMENT

- Developing Flora and Fauna for ecological and economical benefits for the community
- Aim to promote forest productivity and sustainability
- Work to achieve access to basic food needs, water and clothing for households through forest products and services.

BASELINE INFORMATION

DATA	METHOD OF COLLECTION
Geographical data of the area, climate	Secondary data (maps etc) participatory map.
People in the area and their culture, interests and the problems they have.	PRA, Workshop meetings.
Existing Forests and the Forestry activities.	PRA (SSI, Transect work Aerial Photos Interest groups.
Level of Community participation and relations to forests and forestry.	SSI, Transect, walks meetings, Secondary data from other organizations.

STRATEGIES

- Get basic understanding and rapport with the community
- Identify and/or form legal appropriate groups
- Identify the power structures in the community and
- Conduct awareness campaigns in terms of Drama, Video/Film
- Extension homestead visits
- Incentives in terms of materials
- Provide fast food tree crops and other nutritional value forest products
- Training interest groups to build their capacity
- People will be encouraged to work in teams.

APPROACHES

- Joint partnership program with the community
- Promote forestry related micro-enterprises
- Create platform for the promotion of market for the products and services
- Training not only in Forestry subjects but also in other topics that will enhance project management
- use the early adopters as extension agents in their respective areas
- Lobby for favourable policies from the Government of Tumlez as may be necessary.

CONCLUSION

- Program should run for at least five (5) years after which an evaluation will be conducted.

GROUP TWO

CONCEPT PAPER ON SOCIAL FORESTRY NETWORK FOR EAST, CENTRAL AND SOUTHERN AFRICA

INTRODUCTION

Our countries are different-culturally, politically, economically etc. However, the land use and environmental challenges we face are similar. Thus there is need to explore avenues of networking whether at national or institutional levels in order to promote information exchange for social forestry in East/Central and Southern Africa.

OBJECTIVES

1. To put in place effective and efficient networking system and operating structures
2. To formulate and implement networking policies and programmes for sustainable management and use of networking resources.
3. To promote sustainable participatory management and use of networking systems such that stakeholders take active and sustained interest towards effective management and utilization of the networking system assets.

CONSTRAINTS

1. Policy and legislation. Forestry policies not reviewed and when they have been reviewed, they are not being implemented.
2. Inadequate and less qualified staff
3. Land and tree tenure. Not clearly defined land and tree ownership
4. Awareness and publicity. Inadequate and weak extension support towards forestry and related activities.
5. Financial. There is inadequate allocation of funds to Forestry.
6. Natural resources/environment are not considered as priorities
7. Weak inter-institutional collaboration.
8. Inadequate transport facilities.
9. Inadequate communication facilities (phones, fax etc).

OPPORTUNITIES

1. Indigenous and scientific knowledge.
2. Stakeholders willing to participate
3. Existing policy and legislation
4. Existing land and tree tenure
5. Available natural and exotic forests
6. Available Agroforestry technologies
7. Timber and non-timber products
8. Capacity building
9. Existing institutions for collaboration

RECOMMENDATIONS

1. Each country should review its policy and legislation and implement accordingly.
2. Appropriate Training at all levels.
3. Land and tree tenure should be clearly defined in line with the reviewed policies.
4. Promote and increase awareness and publicity campaigns.
5. Government annual budgetary allocation should be increased to natural resources/environment ministries.
6. Natural resources/environment ministries should be considered as priorities.
7. Strengthen collaboration between institutions
8. The government should improve transport and communication facilities.

ACTIVITIES

1. Exchange of information e.g. research, marketing, products etc.
2. Organizing training, seminars, workshops and study tours
3. Establishment of networking systems and operating structures
4. Information dissemination through journals, newsletters, posters etc.

INSTITUTIONS

Government
NGOs e.g. ICRAF
Research Institutions
Universities and Colleges (Training Institutions)
Private Sector
Traditional Institutions
Other networking parties/collaborators

- Forest, Tree and People (FTPP)
- Tropical Forest Action Programme (TFAP)
- Commonwealth Forestry Association (CFA)
- International NGOs
- Donors e.g. FAO, EU, JICA

APPENDIX THREE

FIELD TRIP REPORTS

INTRODUCTION

The field trip was undertaken to expose the course participants to social forestry program, with a view to observe various technological interventions, practices, extension activities and community participation. The field trip covered Eastern, Rift Valley, Western, Nyanza and coast Provinces.

GROUP I

TOPIC: TECHNOLOGY DEVELOPMENT ACTIVITIES IN SOCIAL FORESTRY

Land is a limited resource and in order to maximize its use new and improved technologies have to be developed and adopted to accommodate the even increasing population. Hence Forestry research plays an important role in the development of new technologies to improve the ways in which to manage and utilize Forest resources and other related resources to meet and improve the requirements of the present and future generations while protecting the forest resources and the environment.

TECHNOLOGY DEVELOPMENT ACTIVITIES

Research has managed to come up with trials for both off farm and on farm, aiming at improving soil fertility, reducing soil erosion, improving fodder production and maximizing the use of production.

ON- STATION RESEARCH

KITUI REGIONAL FORESTRY RESEARCH CENTRE

A Pilot forest project involved in adaptive research on nursery techniques, species, soils and watering for arid and semi arid areas.

Nursery

In the nursery participants were exposed to seed extraction, pre-treatment, vegetative propagation and the need for hardening off. The technology is called the Extension Model Approach and is aimed at transferring nursery techniques to farmers so that they could successfully raise seedlings for their own use.

Silviculture

A number of trial plots were visited, which were planted with various tree species under different silvicultural treatments such as (intern) land preparation aimed at eliminating competition, spacing, water catchments, tree management which includes thinning, weeding, coppicing and sand mulching.

The project also promotes indigenous knowledge such as traditional methods of termite control e.g. plant parts, oil, batteries, ash and cow urine.

CONSTRAINTS/PROBLEMS

The major problems being encountered in the station are droughts, poor soils, termite attack, tree management and thefts of trees from the neighbouring community.

EMBU KEFRI-KARI-ICRAF RESEARCH STATION

The objective of the centre is to centre its research activities to livestock feed in terms of quality and quantity, to improve soils fertility, soil conservation measures, provision of adequate fuelwood and other wood products and to come up with other cash generating enterprises other than coffee.

A plot was visited where leguminous trees were growing in association with forage grasses for zero grazing purposes.

A trial plot for fruit trees was also visited where the exotic dwarf mango species was being promoted because it does not compete with crops because of the height and crown and also its high fruit production compared to the indigenous one.

ON-FARM RESEARCH

KITUI

David Ngonde a model farmer with the social forestry project - JICA is into on farm trials on water catchment, agroforestry and soils conservation with the use of FANYA JUU and other soil conservation activities.

EMBU

Fredrick Kinywa an innovator has on farm trials on agroforestry incorporating fodder production, livestock, soil conservation measures with the use of Fanya Juu and *Calliandra spp* and diversity of forest products.

OTHER TECHNOLOGIES

KIKOPE WOOL PROJECT

Use of roots and leaves from various trees to make dyes for the wool which they use to make carpets. For example *Acacia meansii* bark.

GROUP 2

A REPORT ON SOCIAL FORESTRY EXTENSION ACTIVITIES IN THE ASALS OF KENYA

INTRODUCTION

The report covers the extension activities that were observed and encountered during the field trip that was undertaken by the participants of the 4th regional course for the Promotion of Social Forestry in Africa. The team visited the ASALs of Western and Eastern Kenya.

The main objective of the trip was to enable the participants to see in the field the main extension approaches and strategies being used and how these affect the promotion of Social forestry in Kenya.

During the tour the team was able to interact with farmers, researchers and extension officers and had on spot discussion. It was observed that in some areas there is more research activities while in others the opposite is true. The extension activities as observed are based on Holistic, village and Contact Model farmers approaches. There are several Extension players e.g. Government, NGOs etc in the field but they collaborate in one way or the other.

SOCIAL FORESTRY EXTENSION

In the field, Social Forestry Extension is centred on promoting and integrating trees in the farm land use system. This is aimed at increasing diverse productivity of the farmers land. While some spp. used in this program are mostly exotic multi-purpose trees and fast growing, the farmers are encouraged to also plant the indigenous spp. based on the same principle of MP utilization.

SOCIAL FORESTRY EXTENSION APPROACHES

The extension approaches that are in use are diverse from one area to another. In some cases the approaches is holistic and the extension agents are working to integrate all farm activities to complement each other and benefit the farmer. In some cases especially where social forestry is a new phenomenon, the extension system is making use of contact and model farmers to take advantage of farmer to farmer interaction.

The approaches are mainly dictated by the social structures in the communities and they have their

own advantages and disadvantages.

STRATEGIES/METHODS USED

In spreading the message of Social forestry the extension officers/agents are visiting the farmers/groups in their own areas and giving training or on-the spot advice. At times the farmers are taken on study tours for them to go and learn and share their experience with others. The KEFRI centres also offer residential courses to the farmers at the centres. There are also on farm and on station field days that are organized where the researchers, Extension Officers and farmers meet and share their experience on a variety of topics. There is also the publication and translation of various research papers which are distributed to the stakeholders.

COLLABORATION/LINKAGES

In the areas visited, the farmers were easily inclined to KEFRI than to any other agent. There was a mention of other players like FD. NGOs like KENGO but the collaboration was not so visible. However, an organization like KENGO was identified at several places.

The linkages between research (KEFRI) and FD extension seemed stronger than those between KEFRI and other NGO and line ministries. The structure of extension did not seem to be well defined at locational and divisional levels.

PARTICIPATION/INVOLVEMENT

The willingness on the part of most farmers especially women to participate in Social Forestry activities was impressive. In most cases the activities were initiated by the women themselves. The women appeared to be good extensionist to one another than the men. However, in certain cases it was evident that programmes that did not appear to be doing well did not involve the beneficiaries at the initial stage. Further more, the program that were individual based appeared to be better than those that were communal.

PARTICIPATORY RURAL APPRAISAL (PRA)

The PRA is one recently developed extension tool. In areas visited the influence of PRA was seen. While the expected response of the community was good, the other stakeholders do not seem to have risen to the occasion. The communities have been empowered but there seem to be a shortage of

policy frame work on the part of Government to deliberately adopt the raw desires of communities for development. The empowerment has brought about an increase in production and hence they triggered the need for markets for the products.

The collaboration amongst all the development agents in conducting the PRA does not seem to exist and even the usefulness of the PRA results seem to be confined to those who were involved but who may not be capable of fulfilling the outcome desires of communities.

On the other hand, the community is doing all they can to satisfy their needs as realized from the PRA.

PACKAGING

The packaging of the extension activities is very specialized. It was evident from the tour that the tree growing farmers are still marginalised in terms of loan facilities. With this in mind, the activities are packaged in a way that is dictated by the socio-economic status of the communities. The farmers are usually given an option to modify the activities as they see them helpful and according to the capability they have. Where the situation allows, the message are also delivered through the chief's barazas.

The integrated research approach on the farms is also quite popular in the areas that were visited.

TRAINING

The training being offered is now oriented towards Social Forestry Promotion. Most of the Extension workers have already undergone either formal training in this respect or refresher short courses both within the country and outside.

The farmers are also being trained either in residential courses or on farm training though learning by doing. The training for farmers is not static but is dynamic and follow the work calendars of the farmers. At times this training has taken the form of tours or field days.

ISSUES/CHALLENGES

- Markets
- Benefit sharing

- Government obligation to develop its people
- Increase in Extension Officers.

CONSTRUCTION/PROBLEMS

Some of the pressing problems facing the farmers as it was learnt in the trip include:-

- Lack of or inadequate training.
- Unreliable climatic conditions.
- Lack of credit facilities
- Gender imbalance
- Lack of Incentives
- Pests and diseases
- Unreliable markets for the forest produce
- Limited resources on the part of facilitators

RECOMMENDATIONS

The following are recommendations for improvement of farmers activities and for providing possible solution to the problems:

- Communities should be involved for initial stages
- Training should be emphasized both for men and women
- Diversity of tree spp. should be encouraged.
- Government should assist farmers in finding markets for their Forest produce.
- Government-Farmer collaboration be improved
- Domestication of indigenous multipurpose trees must be encouraged
- Farmers should be advised to use locally available materials.
- Government should encourage planting of drought resistant spp.
- Indigenous knowledge in all aspects of Social Forestry should be encouraged.

CONCLUSION

The areas visited reflected the true picture of what Social forestry extension could mean in different climatic zones. i.e. arid. semi-Arid and high potential zones. The first two zones which are of the most urgent concern seem to have formed a niche in answering a problem of water. food and trees

shortages. On farm research, PRA and other collaborations have proved beyond doubt that participation of the community could be the best tool in future extension.

However, there is still more to be done as some problems are escalating concerning linking all stakeholders, that is, other of Government sectors, extension and community to liaison in order to serve diverse needs of farmers.

Therefore for future prospects we encourage that more emphasis be geared towards unified extension.

APPENDIX FOUR
COUNTRY REPORTS

BOTSWANA

BY

G.M. KEFORILWE

1.0 INTRODUCTION

Botswana is a country which is land-locked and straddles the Tropic of Capricorn in the centre of southern Africa Plateau. The mean altitude above sea level is approximately 1000 m and the country's total land area is 582 000 sq.km which is about the size of Kenya and France.

Botswana shares borders with Zimbabwe, South Africa, Namibia and Zambia. Much of the country is flat, with gentle undulations and occasional rocky outcrops. In the North-West, Okavango River drains inland from Angola to form the Okavango Delta; in the central north-east is a large area of calcrete plains bordering the Makgadikadi pans. In the east, adjacent to the Limpopo drainage system, the land rises above 1200 m and the Limpopo Valley gradually descends from 900 m in the south to 500 m at its confluence with the Shashe River. This eastern region, which straddles the North-South railway line, has a somewhat less harsh climate and more fertile soils than elsewhere; and it is here that most Batswana live.

The rest of Botswana is covered with thick sand layer of the Kalahari Desert. This accounts for more than two-thirds of Botswana's land area. The sand cover is up to 120 m deep. The Kalahari supports a vegetation of scrub and grasses, both there is an almost complete absence of surface water.

1.1 Climate

Botswana is situated close to the sub-tropical high pressure belt of the southern hemisphere. As a result, the country is largely arid or semi-arid with annual rainfall of averaging 700 mm in the North 450mm in the Central areas and 250mm in the Western part of the country in the Kalahari area. The long-term, seasonal, average, annual rainfall is depicted in Figure 1.2.

2.0 PLACE OF FORESTRY TO BOTSWANA SOCIETY

Traditionally Botswana society is an agrarian society and forestry comes secondary to agriculture despite its utmost importance to the wellbeing of many of our country's citizen especially for (timber, wood-fuel and other important wood products. The latest statistics indicate that more than 70% of our population is still rurally based and wood still forms vital part of their way of living.

Approximately 85% of Botswana is covered by what can be classified as either forest, woodland or savanna with scattered trees on grass lands with varying degrees of diversity. The countries savanna/miombo woodlands are situated in the Northern and Eastern regions this being due to the higher rainfall and more fertile soils found in these areas.

Wood accounts for over half of Botswana's energy consumption and is a vital raw material for construction of both modern and traditional houses, livestock kraals, fences and manufacture of households and other utensils. However, because of deep the rooted cultural beliefs of wood as "free for all" the results have been devastating as large areas have been stripped of tree cover through indiscriminate cutting of even live trees, wild fires, overgrazing etc. The situation is not helped by persistence cycles of droughts. The link between Botswana society and forests is the limited soil and water resource base and need for its rational utilization and conservation to meet growing demands.

The forest resources play a vital role in the economic and social development of the country because of the many products suc as veld products, edible and medicinal plants, water and soil conservation, wildlife conservation, recreation and education, conservation of rare vegetation and biodiversity. However, the rural forest resource is finite, particularly in the fragile semi-arid climate of Botswana. Subsequently, the government of Botswana has become increasingly concerned about the little amount of timber produce and increasing rates of deforestation which could become irreversible if not halted in the very near future.

2.1 Management Concept

The future of Botswana's natural resource base depends on the well informed and experienced user populations, both locally and nationally. However, it is unfortunate that experience has shown that in the past no efforts were spared to consider some of the following; promoting better understanding and wise use of the natural resources; to undertake research which emphasizes on simple, practical experimentation into local problems of forest and natural resource management; involving user groups in identification, prioritization, execution and analysis of research projects; promotion participation and public involvement in the management plan and forest management. Further to this there havs seen some forestry development projects over the past decades many which however have failed to achieve their objectives because of the lack of clear-cut policy objectives.

Forestry programmes require not only an understanding of the people, their needs aspiration, but also the forest management agency, its planning and implementation mechanism and capabilities. As one

writer asserts, "The ideal resources management system should combine the strength of both controlled, bureaucratically controlled system, integrating responsive local decision units into larger systems, able to distribute risks and development costs, while mediating conflicts among individuals local units" (Korten, 1987). There is an increasing need for forest products and services that only Botswana's indigenous woodlands/forests can provide, while protection and conservation of the natural resources which form the basis for sustainable development and employment become even urgent. At the same time the lack of coherent and committed approach to forest management has led, over the years, to a deterioration of forest ecosystem which will continue to compromise the ability to meet future needs. Therefore, attempts should be made to provide a coherent framework for the process of multiple use and sustainable yield of these resources.

2.1.1 Botswana's Forest Reserves

The six forest reserves of Chobe, Kasane, Kasane Extension, Kasuma, Maikaelelo and Simbuyu are the only forest reserves in Botswana and together cover 420,000 hectares or only 1% of total land area. These forest reserves contain commercially valuable timber species, notably *Pterocarpus angolensis* (mukwa) and *Baikiaea plurijuga* (mukusi) and were subject to commercial exploitation until 1992-1994 when government suspended such activities due to concerns over the sustainability of the resource. Past over-exploitation, lack of management and the occurrence of annual fires had resulted in serious degradation of the forest reserves.

2.1.2 Forest Reserve Management Plan

Now these forest reserves are operating under a management plan. The overall management goal is to contribute to improved socio-economic conditions in the Chobe District and Botswana through optimal multipleuse, sustained yield management of the Chobe Forest Reserves with the participation of user groups, in particular thelocal communities.

There are eight (8) management objectives included in the plan.

1. ***Development of the Surrounding Communities***

The management of the forest reserves must contribute to the development of the surrounding communities if the management goal is going to be achieved. The surrounding populations are an essential management partner; without them many management actions could be compromised. The local population has the most intimate knowledge of the resource base.

2. ***Production of Forests Products***

The forest reserves must contribute to a sustainable supply of forest products for the people of the Chobe District and of Botswana. These products include the traditional timber products (timber, poles, and firewood) for the satisfaction of Botswana's needs but also basic non-timber products (such as wildlife, fibres, food, pharmaceticals, etc).

3. ***Conservation/Protection of Resources Base***

The forest reserves will contribute to the conservation and protection of the natural resource base namely; soil, water, flora and fauna, particularly through the promotion of sustained yield utilization.

4. ***Environmental and Cultural Education***

As the only forest reserves in the nation the Chobe Forest Reserves have an important role to play in environmental education of the future generations of Batswana decision-makers, as well as others.

5. ***Ecotourism/Recreation***

Ecotourism is a major revenue generator for the Government of Botswana and for the Chobe District. The Chobe Forest Reserves not only have tourist potential of their own but are strategically located in terms of the present tourist resources in the area (between the Okavango Delta, Chobe National Park and Victoria Falls).

6. ***Grazing and Range Management***

Livestock plays an important role in Botswana's economy and culture. Although the pressures are somewhat less, the Chobe District is no exception. An appropriate land use of some areas of the forest reserves is grazed.

7. ***Wildlife Utilization***

In global terms, Botswana and the Chobe District have a comparative advantage over many other African countries in wildlife. Presently, with the exception of elephants, aerial surveys indicate that wildlife populations have declined in relation to past levels. The economic and cultural (citizen hunting) potential for wildlife utilization in the forest reserves is high and must be carefully

exploited and managed.

8. *Research and Monitoring*

The lack of technical, ecological, scientific, socio-economic data and experience dictates a research and monitoring objective. The objective is oriented towards developing management techniques that ensure the perpetuity of the resource and promote decentralized, sustainable development.

3.0 PROGRAMMES AND PROJECTS IN FORESTRY

3.1 Projects

3.1.1 Forestry Protection and Development Project

The Government of Botswana with the assistance of European Commission (EC) was running a forestry project called Forestry Protection and Development (FPDP) from 1992-1997, and the government is still maintaining its activities to-date. The FPDP is a central component of the National Indicative Programme (NIP) signed between the Government of Botswana and the EC under the provisions of Article 282 of the Fourth Lome Convention. The financing Agreement governing the implementation of Forestry Protection and Development Project was signed on 11th November 1992. The FPDP is a successor to an earlier EC assisted technical assistance project which run from 1990 to 1992.

Implementing Agency of the FPDP is the Department of Crop Production and Forestry (DCPF)of the Ministry of Agriculture, assisted by a grant of ECU 3 million provided by the European Commission through the 7th European Development Fund.

1. The EC financial contribution makes provision for 90 man months of technical assistance;
2. The training of 30 staff to degree and diploma level at overseas training institutions;
3. Infrastructural development through the construction of 8 staff houses and;
4. The upgrading of the forestry nursery network;
5. Direct financial assistance to NGOs, brigades and communities for the implementation of forestry oriented projects;
6. Procurement of vehicles, tractors and equipment.
7. Other activities of this project includes: the establishment of backyard nurseries; implementation of Chobe Forest Reserve Management Plan; some research activities;

development of forestry school programmes; village wood-lot development and forestry extension.

The government contribution to the project is through the deployment of national staff, provision of offices, houses, etc and the provision of operational funds from the recurrent budget for the implementation of field activities.

3.1.2 National Tree Seed Centre

The Botswana Tree Seed Project started in 1994, after signing a Memorandum of Understanding between the Botswana Government and the Government of Canada, as part of the SADC Tree Centre Network Project (SADC-TSCN). The project has a provision of manpower, training (particularly in tree seed technology), building machinery for seed processing and vehicles.

3.2 Forestry Programmes

(a) National Tree Planting Day

The government has declared the last week of November every year to be a National Tree Planting Day. On that occasion , government institutions, NGOs and individuals are given free seedlings to plant. Activities are co-ordinated by Regional and District Forestry Officers. There is also a big ceremony which is addressed by a Minister or President or any otherimportant person in the society.

(b) Around Home Tree Planting

A Selected number of people in some villages are given free tree seedlings to plant. After a certain period, trees are inspected and farmers who have 80% or above of survival rate is given some fruit trees. At the end of the year another inspection is carried out and the best three farmers who have the best tree management in the village would be given presents in a social gathering. Presents include trophy and garden tools. This kind of programme is done mainly by an NGO called Forestry Association of Botswana (FAB).

(c) Financial Assistance Policy (FAP)

Financial Assistance Policy (FAP) is a government programme that assists people to establish or expand a productive enterprises which has element of employment creation and or have a product

which would substitute imported goods. So, horticulture including fruit trees is covered by this kind of scheme.

4. TRAINING COURSES ON FORESTRY AND OR AGROFORESTRY

Social forestry and agroforestry are subjects in the forestry certificate course offered in the country by Botswana College of Agriculture. And the products of this course form the front-line or our forestry extension personnel. Beside the Botswana College of Agriculture offers refresher courses to field staff through their Centre for In-service and Continuing Education (CICE) and social forestry and agroforestry are often conducted.

The country has at least five (5) Farmer Training Centres which are responsible for training farmers as the name implies. Social forestry and Agroforestry are often taught in those institutions.

The Ministry of Agriculture has a Division of Information and Broadcasting which is responsible for informing the public on agricultural programmes and projects. So, tree planting programmes comes over the radio through this arrangement. The same Division has a campaign section which goes out to teach people about agricultural programmes using films, videos, papettes anddrama.

CONSTRAINTS HINDERING THE PROMOTION OF SOCIAL FORESTRY

At present forestry activities throughout the country fall under the responsibility of forestry section within a Division (DFRE) of a Department of Crop Protectionand Forestry(DCPF) of the Ministry of Agriculture (MoA). This forestry section of the DFRE currently does not have sufficient status, not the resources, to be in a position to be able to assist to any great extent in the implementation of the national policies for the protection, conservation and sustainable utilization of the forest resources. The section needs to be considerably strengthened and eventually raised to a Division or Department on its own, and be given autonomy of action within the MoA. At present, all forestry activities are implemented by Forest Officers (FO) or Forestry Technical Officers (TO) who are posted to regions. As such they operate under the direction and control of the relevant Regional Agricultural Officers (RAOs) with technical support provided by forestry headquarters as necessary. Annual work plans and progress reports are all submitted to RAOs and implementation of annual plans is directed and controlled by RAOs. A system of District Foresters reporting to Regional Forest Officers, who in turn report to the Chief Forestry and Range Ecology Officer, is recommended as is practiced in most African countries. Other constraints include:

- Increasing urban fuel-wood demand leading to the excessive and uncontrolled exploitation of communal woodlands.

- Destruction of planted trees by domestic animals

WHAT AREAS TO BE COVERED BY TRAINING

I believe it is very important to learn of experiences or ways in which you can get people to like planting trees. For Social forestry to be successful the beneficiaries should see and feel the need for planting trees. The other area of importance is that of agroforestry development. I believe in this area we are still behind. Although agroforestry is *buzz word* but its implementation is still confusing. On-farm research in this area will be very useful.

ETHIOPIA

BY

GIRMA BEKELE LEMMI AND GESSESSE DESSIE

1. GENERAL

1.1 *Present status of the forests*

There is no consistent data describing Ethiopian forests. Nevertheless, most reports agree upon that, deforestation was accelerated since the beginning of this century. By early 1950's high forests were reduced to 16% of the total land area. It has been estimated that by early 1980's the land area covered by forests had declined to 3.6% and by 1989 to about 2.7%. The current annual loss of the high forest is between 150,000-200,000 ha.

The loss of forest resources was especially severe in the highlands above 1500 m.(asl). The highland covers 44% of the total land area, accommodate 88% of the population, contain 95% of the cultivated land as well as 75% the national livestock herd.

1.2 *Forest Resource Base*

It includes natural high forest, wood and bushland, plantation and farm forests. There is inadequate information on location, extent and volume of the standing growth stock and annual growth rates. A subsequent review based on field inspections, the natural forest was between 2.5-3.0 million ha. The natural forest comprises natural high forest, woodlands, bushlands, plantations and farm forestry.

Table 1 estimates of the area, growth stock and incremental yield (1992)

No.	Forest Resource	Area Million ha	Growth stock m3s/ha	Annual Increment Yields	
				m3s/ha per unit area	Total million m3s
1	Natural High Forest	2.3	-		0.3
	- slightly disturbed	0.7	90-120	5-7	-
	- highly disturbed	1.6	30-100	3.4	-
2	Wood land	5.0	10-50	1.2	6.4
3	Bush land	20.0	5-30	0.2	4.0
4	Plantation	0.2	-	9.6-14.4	1.6
5	Farm Forestry	N.A	N.A	N.A	2.1

1. Natural High Forest: The remaining natural high forest concentrated in the less populated southern and western part of a country. Of the 300 or more tree species in high forest 25 are regarded as commercial species and above 30 are potentially usable for merchantable wood industry. The natural high forest are estimated to be 2.3 million ha. It is proposed that for management purpose about 1.2 million ha should be conservation forest and 0.8 million ha production forests with a sustainable production of 340,000 cubic m.

2. Woodland and bushlands are being depleted by the spread of farming, growing livestock population and by demand of firewood. Most of these areas are traditionally used by pastoralist which makes the management difficult.

3. Industrial and Peri-urban plantations. They cover 95,000 ha and 35, 000 ha respectively. Expansion of plantations will be constrained by limited availability of land and by insecurity of land tenure.

4. Community woodlots and protection plantations. Comprises of 20.000 ha and 50,000 ha respectively which were often established on communal grazing land, without consulting community.

5. Farm Forestry: The total area is unknown. However an annual yield from this source has been estimated as 2 million cubic m.. The major problem which hinders the development is an acute lack of information about traditional farm forestry practices, very limited research and absence of technical extension messages to support on-farm tree growing.

2. ACTIVITIES TO PROMOTE SOCIAL FORESTRY

It is now understood the way and system of promoting social forestry must be totally participatory. The Federal Republic Government of Ethiopia has given emphasis to this new approach centralizing the rural people for the 5 years development programme

2.1 *Community Forestry*

The main purpose to improve this forestry is:

1. To encourage the rural people to participate in forest management and promote, to progress down-top communication of development programme.
2. To provide fuelwood and construction material for the community.
3. To reclaim degraded lands and conserve water and soil.
4. To improve yields from existing woodlots based on secure user rights to forest land on improved community management achieved through a participatory process.

Community woodlots, 10 ha to 80 ha in size usually had 5% of Ethiopian farmers involved. It is assumed that these woodlots total 20,000 ha which with a yield of 8 m3/ha per annum would result in a total increment yield of 160,000 m3 per annum.

2.1.1 *Protection Forestry Development*

The objectives is to establish community owned and well managed forestry schemes to control soil erosion and run-off from steep hillsides with limited production of fuelwood and poles on 2 million ha of land mostly with over 30% slopes over 20 years. This is improved through participatory assistance with overall land use and planning supported by provision of incentive.

2.2 *Farm Forestry*

The objective is to integrate trees into farms to produce fuelwood, poles and fodder, promote sound land management and increase total agricultural production. The strategy would include ensuring security of land and tree tenure for farmers, establishing on integrated participatory extension

service, providing input subsides, securing the initial seedling supply, and collaborating with local organizations. Information on the types of indigenous practice and their extent in the various agro-ecological zones is limited, and estimates on the quantity of woody biomass produced by the farmers of Ethiopia can only be tentative. This is largely because tree production by the private sector has not been officially encouraged or considered an important component in forestry development. Private farm forestry has been ignored and forestry extension workers have never been encouraged. It has been assumed that the production of fuelwood, poles and fodder from farm forestry is of the order of 2 million m3 annually.

2.3 *On going projects assisted by foreign cooperations/ organization*

2.3.1 The Woody Biomass Inventory and Strategic Planning Project: financed by the International Development Association (IDA) of the World Bank.

The key specific aim of the project is to provide means for dynamically monitoring and evaluating the physical changed in forested and treed ecosystems undergoing rapid change, providing feedback to planning and decision makers on the implementation of policy decision towards, or in-directly influencing tree cover and the depletion of woody biomass. The bulk of the project's resources were concentrated on the woody biomass inventory and assessment of the remaining resources being allocated to the establishment of Geographical Information System(GIS) and Remote Sensing (RS) facility, a socio-economic survey of agricultural and bio-fuel consumption, and strategic planning.

National Tree Seed Project

The project was developed in 1992 with UNSO funding, with the objectives of meeting the needs of both the nationally and regionally owned forests including those NGO's and individual farmers directly involved in such programmes. Main components of the project are:-

- Seed procurement
- Tree importance
- Management and training

2.3.3 *Forest Resources Management Study Project*

The project is financed by the Government of Japan through JICA and was started in February 1996. The objective of the project is to survey the forest resources in the south-western part of the country for the purpose of formulating a Forest Management plan for proper maintenance and improvement of forest resources.

GTZ Assisted Projects

1. Advisory Assistance to the Forest Administration project
2. Bamboo Management Study Project
3. Savannah Woodland Management Study Project.

3. SOCIAL FORESTRY TRAINING IN ETHIOPIA

Wondo Genet College of Forestry is the only of its kind in the country. The college offers mainly diploma, B Sc as well as M.Sc courses. In-service and continuing education programms are also run in the college.

Mertule Mariam Soil Conservation and Social Forestry Training Center, Menagesha Suba Forestry Training Center and Bofer Becho training center are involved in training forest workers at vocational level. Among these training centres Menagesha Suba forestry training center is one where social forestry training is offered for regional forest experts, technicians and farmers. Otherwise Wondo Genet College of Forestry offers certificate, diploma and B Sc level forestry training, especially in-service training is organised for 6 weeks every year to benefit technicians working at the grassroots level in all regions in the country. The participants of this course are the ones, who are believed to work closely with the people to promote social forestry.

The diploma and B Sc graduates reach every corner of the country and work in every institution of forestry development as middle level experts in the field.

For the diploma and B Sc about 4 courses specifically related to Social forestry are offered (Table 2).

Table 2. Social Forestry/Agroforestry courses offered at Wondo Genet College of Forestry

No.	Courses	Code	Level	Remark
1	Social forestry	For.342	B.Sc	
2.	Rural sociology and forest extension	For.442	B.Sc	
3.	Agroforestry	Silv.254	Diploma	
4.	Forest Extension	Silc.273	Diploma	

During the last five year period two batches of M.Sc Farm Forestry specialists numbering about 20 students have graduated. This programme was run in the college with collaboration of Swedish University of Agricultural Sciences. Alemaya University of Agriculture and Wondo Genet College of Forestry. In the coming five years time another two batches of the same course students will graduate. This programme is aimed at supplying experts working as policy makers, strategic planners, researchers and teachers. The courses offered in M Sc farm forestry programme are as shown in table 3.

Table 3. M Sc Farm forestry courses offered in the college

No.	Courses	Study weeks
1	Introduction to land husbandry	2.0
2	Participatory extension	2.0
3	Indigenous use of trees and forestry	2.0
4	Soils in the tropics	2.5
5	Agroforestry and woodlots	5.0
6	Production processing and marketing on non-timber forest products	2.0
7	Institutional aspect of social forestry	1.0
8	Applied research methods and techniques	2.0
9	Planning, monitoring and evaluation of farm forestry projects	2.0

3.1 *Research in Wondo Genet College of Forestry*

The prevailing forestry problems of the country, alternative strategies that include multidisciplinary approach and active participation of the local population have been devised to be adopted by the forestry resource programme of the college. Accordingly, the college has planned to conduct and promote fundamental and application oriented researchers on:

- Participatory management of natural and plantation forests in Ethiopian highlands
- Methods of rehabilitating degraded forests and woodland ecosystem
- Dryland integrated forestry production
- Optimized production and utilization of wood and forest products as a whole
- Socio-economic dimensions of deforestation and forest resource degradation, and
- Consequence of alternative strategies for the implementation of existing land ownership systems.

4. CONSTRAINTS AND PROBLEMS

1. One of the major constraints of the forestry sector in Ethiopia is lack of vision towards the development of forestry in general and social forestry in particular. This is created due to unstable political conditions that continuously changing institutional structure have deprived the sector of binding forest policy. As a result initiatives have failed to succeed, continuity could not be maintained in the efforts put to develop forestry sector.

2. Less participation of the stakeholders when forestry projects are initiated, executed and appraising. This deprived the people of sense of ownership of the forests and related projects and hence has negatively influence the development of forestry. Moreover, private endeavors in the sector are at feeble stage due to various problems.

3. Forestry was not properly considered in the package of rural development that contains the agriculture, livestock and water resource. Vividly, unless these sectors can work in a team, first forestry will be affected, then agriculture, livestock and water resource. Finally the whole environmental system collaping.

4. Limitation of capacity including human resource money and so on.

5. RECOMMENDATIONS

Clear concise forest policy and enabling tenure system must be established soon.

Forestry must be planned in the whole system of development package as it is related to each family's economy and daily life.

People's participation must be given top priority in every aspect of the sector's initiatives.

Private investors must be encouraged through providing them enabling investment environment in the forestry sector.

6. AREAS OF SPECIAL TRAINING NEEDS

Training planned in Ethiopia must clearly look into the prevailing forestry and social forestry problems. When the need for training is assessed it is not only the type of technical skills required, it is also the level of training that must be considered. In this connection range of experts between the grassroot level and strategic planners, researchers and policy makers are demanded.

Those who work at the grassroot level must be equipped with a knowledge that is capable of solving the farmer's day-to-day problems. People working at this level must be large in quantity and trained now and then. Diplomas bridge the middle level experts with the field agents working at the farmers's level.

The intermediate level experts mostly B Sc holders must be capable enough to interpret and transfer the policy guidelines, research results and strategic plans that are prepared and analyzed by the higher level experts M Sc and Ph.D to the field experts below them.

Moreover, the classical forestry management must be changed significantly so that the people's participation and sense of ownership is ensured. Multidisciplinary, holistic approach and client orientation must be the new strategy. Indigenous knowledge must be assessed properly and tapped and utilized. Forestry must not only be considered as a source of wood but as a resource that provide services to the environment and national economy. The training needed in the country must, therefore, serve this shift of thinking. In addition to this:

- Fast reliable and cheap forest resource assessment and analyzing methods;

- socio-economic studies,
- multidisciplinary and holistic approach as well as client orientation techniques,
- management decision techniques that can harmonize as much services as forests provide, qualifying and upgrading of the scientific understanding in the field, and
- new innovations in the field of forestry are some of the training gaps the country must fulfil.

LESOTHO

BY

S. MOSUHLI K. LEKOTE. K. MOTHOLO, S. LIKOENA, P. MAKEKA and T. KOALI

(Others attending a different programme in the same venue)

1.0 INTRODUCTION

Lesotho is a small country in Southern Africa with a population of 2.5 million. The total land area is 3 million hectares, two thirds of which is mountainous, and only 0.4% can be considered as good agricultural land. The total arable land has been estimated at 486, 000 hectares. The size of the productive area has however, been declining rapidly in the lowlands, foothills and mountains. Each of these areas has a unique potential for agricultural development, but they are all threatened by over stocking of animals overgrazing, severe soil erosion and land degradation. In 1982 it was estimated that 2% of the soil cover is lost annually due to erosion.

This paper examines the Government policy in forestry, forestry status of forestry and forestry resources, activities meant to promote Social forestry in Lesotho. Obviously, in forestry activities in Lesotho there are some constraints arising, this paper also reviews the area of particular training needs for foresters and forestry farmers in Lesotho.

2.0 POLICY AND HISTORY ON TREE PLANTING IN LESOTHO

Basic forestry policy is that tree growing should be encouraged by the Government through forestry division and non-governmental organizations.

(i) To completely replace dung and crop residues as fuel whereas they are supposed to improve soil structures.

(ii) To eliminate the necessity of cutting shrubs and trees for fuel on ecologically vulnerable land.

(iii) To substitute for expensive imported coal, gas and kerosene, firewood, building poles, fence post and sawn wood.

(iv) To stabilize soils and rehabilitate degraded lands

(v) To support both the crop and pastoral enterprises.

Because of the country setting which is comprised of mountains, steep terrain and valleys, Lesotho has been exposed for a long time to raid soil and land degradation, as a result of very poor vegetative

cover. Since 1973, the Government of Lesotho introduced a systematic woodlot planting through the Ministry of Agriculture. By then 10,000 hectares of gum and pine were established.

ODA and WFP supports to Woodlot Project with money to fence woodlots and pay the community on tree planting through food aid and money. Many of the plantations established which were called state forests are now ready for harvesting.

Many people have complained that they were not consulted during the process and that arable fields and grazing land have consequently been lost. There was a limited understanding amongst the people of the condition under which the reserves were established. Due to the fact that they are obliged to buy wood, believing that they had given their land in return for firewood. They had little appreciation of the practical implications of their land being declared a reserve while they have lost access to their land.

Given the extent of such misunderstanding, many state forest reserves have been subjected to theft, vandalism and lack of local management and protection. Due to the request of the donors to the government to change the old concept of forestry to focus more on the community participation, the funds were withdrawn.

It was because of these problems that the government's forestry division and the non-governmental organizations involved in forestry changed the concept both of them supported community forestry/social forestry). This has become the preferred model nationwide, and this is the concept used by the government forestry division and the non-governmental organizations which the donors support today. This approach improves the community participation and sustainability of the community intervention.

3.0 PRESENT STATUS OF FORESTRY AND FOREST RESOURCES IN LESOTHO

At present the essential component of the forestry development process in Lesotho is the promotion of self-reliance and objective of Lesotho forestry is to strengthen the ability of Basotho to manage village level forestry development.

Self reliance offers the opportunity for people to regain control over their own forestry resources. It has been realized that people can adopt, create and be able to face new situations if they share a common strategy. Forestry programme used innovative and reliable extension methods to develop greater and more active participation of the people in their own forestry development. For example,

the forestry programme has involved herdboys, institutions and individuals to plant their own trees. Through such methods the rural communities become the prominent actors in the forestry development process and re-discover their potential which re-affirms confidence in themselves.

The aim of self-reliance is to give people and communities enhancement and contribution to the evolution, changes and transformation of their environment. In this sense self-reliant development never demands foreign models of development which has been dominating forestry development in the past. However, it may incorporate aspects of foreign models in combination with the local programming. Self-reliance is achieved through an awareness/need assessment of local forestry needs and aspirations. The satisfaction of basic human forestry needs such as self-sufficiency in forestry production is the primary objective of forestry development and it emanates from the local communities.

4.0 PLANNING:

Planning is perhaps the essential feature in pursuing forestry development goal. Strategies to address problems in communities are taken into account the norms culture, social preference, skills, knowledge and resource of the environment. This requires people to become involved in the planning and implementation of forestry development projects. In addition, foresters must be able to facilitate and motivate people to be active in tree planting process. A forester is therefore seen not only as an instructor in the field of forestry but part and parcel of forestry evolution.

Planning begins with the challenge task of exploring the meaning of sustainable forestry development and local paths towards the programme achievement. The second challenge is the task of understanding the relationship between different factors which affect forestry development and the use of forestry resources which include the social, economic, bio-physical and cultural aspects of planning in forestry. To meet this challenge, it is essential that foresters know how to access information from diverse source, indigenous and modern forestry development concepts.

The third challenge is to understand their working and living environments. At this level forestry developments most directly affect the conditions of everyday lives, whether it is through land use planning, local educational developments or the use of natural resources.

This requires that foresters or extension technicians be both visionary and practical in forestry programme design. A fourth challenge is the need to act professionally. This requires foresters and extension technicians to provide technical knowledge and skills, leadership in participatory planning and to work with others in complex organizational settings.

5.0 ACTIVITIES MEANT TO PROMOTE SOCIAL FORESTRY IN LESOTHO

There are so many Forestry Projects existing in Lesotho. These projects are operating in different parts of the country. Some are based in the northern part of the country, some in the southern areas while others are in the highlands part of the country. Namely; Mphaki project, CARE International, Plenty Project, Matelile rural project, Red Cross, Christian Council and many more. The general objectives of all these projects in promoting Social forestry are;

(1) To promote community participation in tree planting activities

(2) To establish and promote participation in forestry, the sustainable use of trees, shrubs and to promote future increase in the production of fuel and wood based products.

The overall goal of these projects is to reach all the families residing in the areas where the projects are situated.

Among the others, the projects focuses on the following objectives;

(1) To establish fully participatory Social forestry to be developed and sustained

(2) To support members of the community including schools, local institutions within the community to plant trees to meet their energy needs

(3) To identify and demonstrate a wider range of trees and shrubs and planting models.,

6.0 TRAINING COURSES ON SOCIAL FORESTRY IN LESOTHO

The Ministry of Agriculture had introduced the Farmers Training Centres in 10 districts around the country and in some rural areas. The non-governmental organizations which are involved in Social forestry promotion are also resource centres.

These Farmers Training Centres and Resource Centres were meant to accommodate farmers in various level for courses in social forestry and other agricultural matters.

As to promote Social forestry, the following courses used to be undertaken by the Department of Social forestry and non-governmental organizations;

(1) Management of woodlots

(2) Leadership which is basically provided to village tree communities and village development councils.

These trainings are provided in order to hand over more responsibility to people so that they can be empowered and conscientized towards tree planting activities. Besides the community representatives, the Social forestry focussed more on training youths and begins from primary schools, secondary and high schools. Moreover the herdboys as the major people who are looking after the livestock are provided with training which enables them to protect trees and rangeland.

7.0 CONSTRAINTS

(1) Unpredictable weather which significantly prolongs dry and wet periods of trees is the major constraint on tree planting activities in Lesotho.

(2) As mentioned above, Lesotho woodlot project concept was to pay people (give incentives) and the ownership was not clear to the people; it is very difficult for the people to accept the Social forestry concept.

(3) Grazing on seedlings is the major constrain and is exacerbated by high livestock population in Lesotho.

(4) As it has been indicated that Lesotho is a mountainous degraded country it is clear that grass for livestock lacks and it is only in few places where one may get grass for animals. These places are the ones which have enough land for both grazing land and forestry activities, therefore there is high competition between social forestry and livestock population.

(5) Since forestry course was introduced in Lesotho Agricultural College, the emphasis was to produce typical foresters whose main task was to produce and plant trees in the field. This

led to a situation whereby other forestry components relating to the social and environmental aspects were neglected for a long time. There is need to train multidisciplinary foresters to bring about changes in the field of forestry in Lesotho.

(6) Unevenly distributed nurseries and inaccessible area district, hampers social forestry.

8.0 AREAS OF PARTICULAR TRAINING NEEDS

1. Due to the old foresters' attitudes, the Lesotho Agricultural College has changed the methods of disseminating information by introducing Natural Resources Management, even though those old foresters who are holding important posts in Forestry Division and in some of the non-governmental organizations should be assisted to attend refresher courses to change their attitudes.

2. Since the Lesotho Agricultural College only provides diploma forestry, there are some few foresters who hold degree and masters in forestry and natural resources. Because of this, the University of Lesotho should introduce a faculty of degree and masters in forestry in the University.

3. There is need to re-arrange village training centres' facilities to encompass forestry training for the youths and foresters who are unable to attend higher forestry training courses.

4. Improvements should be made to the government forestry research division by training enough human resources and by allowing non-governmental organizations to establish research activities in forestry so as to avoid the mortality rate which is caused by planting wrong species, especially in the highlands of the country.

MALAWI

Patricia E. Chidyera

1.0 INTRODUCTION

Malawi is a small country in Southern Africa located between latitudes 9^0 to 18^0S and longitudes 33^0 to 36^0E. It occupies an area of 11.8 million hectares of which 9.4 ha million is land with the balance comprising Lake Malawi and other smaller lakes (Malawi Government, 1995).

Much of the natural vegetation of Malawi is *Brachystegia* miombo woodland, interspersed with *Acacia combretum* wooded savanna.

The country's population is estimated at 12 million with a density of about 110people/km^2. A greater portion of this population relies on fuelwood as an energy source. Forest supply 90% of the domestic energy requirements.

Soil loss is currently estimated to average 20 tons per hectare per annum with disastrous consequences on soil fertility and crop production with rates more than 50 tons/ha in many areas (Malawi Government 1995). Between 1972 and 1990 total forest cover declined by an appalling 41% and 1990 averaging for a loss of 2.3.% annually. This figure at present has risen and is estimated at between 43% - 45%. The high level of deforestation has been due to land clearing for agricultural expansion coupled with high wood and fuel demands.

Although deforestation rates have decreased in some parts of Malawi this could be because there are no trees to fell. Many smallholders are facing chronic shortages of wood for fuel and shelter. This is because many people cannot afford to use electricity or paraffin for domestic use due to financial constraints, although the government has tried to regulate the price of paraffin.

The revised Forestry Policy is encouraging community participation in all forestry and environmental related activities. Therefore, this course will be of paramount importance because it will help in contributing to the achievement of this policy. Thus students that are trained at the Malawi College of Forestry are expected to work towards the achievement of the policy upon graduating.

2.0 PRESENT STATUS OF FORESTRY AND FORESTRY PRODUCTS

Most people in Malawi rely on fuelwood as a source of energy therefore most trees both natural and exotic are being depleted. Due to lack of means of getting money for domestic uses many villagers also cut trees for sale in urban areas.

Other forestry resources such as bamboos are being cut and used and in the weaving industry whose products are sold mostly along the roadside. Where natural trees still exist, people are able to obtain non-wood products, for example, mushrooms.

Due to land shortage encroachment into forest reserves is becoming a very big problem. The Malawi Government through the Department of Forestry is now encouraging all forest officers to implement the Forestry Act (1997) which has tough punitive measures on anybody who conducts unlawful activity in forest areas. For example if someone is found opening a garden in a forest reserve and is caught, has to pay a fine and/or imprisonment. When this is fully implemented it is hoped that most of the problems facing the Forestry Department will be overcome.

3.0 CURRENT PROGRAMMES/PROJECTS AND ACTIVITIES TO PROMOTE SOCIAL FORESTRY

The Forestry Department drew up a Development Strategy for the years 1997 - 2000 where a lot of issues were highlighted for implementation from the revised forestry policy. More power is now being invested into the local communities for managing forests who for a long time perceived that forests are for the government and therefore they cannot manage them. This came into being as a result of realization that people are more inclined to guard and protect what they perceive to belong to them and to what they contribute labour and effort. The sense of ownership towards natural resources is thus important to enhance sustainability for sound environmental management in the long run. There can be no sustainable development if natural resources are not 'owned,' controlled and managed by the population concerned.

In all the districts of the country and in many communities there has been formation of Village Natural Resources Management Committees (VNRC). These committees are formed by their fellow villagers, draw up their plans as well as regulations and rules to follow land punitive measures for any wrong doers with the help of forestry extension personnel. The Forestry Department has started training these committees on co-management activities

There are a lot of activities which the Forestry Department has started implementing from the development strategy. Some of these activities are:

* Promote local community, general public sector participation in forest protection and management and also to institute mechanisms to develop a strong partnership with local communities.

* Develop a full and comprehensive forestry extension service by training and equiping forestry extension staff through refresher and short courses and formal in-service training and to introduce specialised forest management courses for local communities.

* Promoting the role of men, women and the youth by promoting formal links between established gender groups and forestry extension services and ensuring that there is gender balance in terms of equal access of training, promotion and career development in the department.

4.0 PROJECTS

4.1 UNHCR: Forestry Project In Support Of The Rehabilitation Of Areas Affected By Refugees

The project has five targets where there were many Mozambican refugees during the Civil war in 1992 namely: Nsanje, Chikwawa, Mwanza, Ntcheu and Dedza. These districts are along the border of Malawi and Mozambique.

The communities in these areas are mobilised to plant trees in hilly areas, marginal lands and also to have community woodlots. The project provides inputs such as seeds, polythene tubes, fertilizers etc., to the communities. Training is provided to the communities using expertise of staff of Malawi College of Forestry and Wildlife while they continue working in their areas with the guidance of forestry extension personnel.

4.2 European Union Social Forestry Project

The Malawi Government recognizing the importance of forest cover in environment protection and livelihood security has re-oriented National Forest Policy embodied in the Forest Act 1997 and sector objectives away from industrial plantation development and the regulation of indigenous woodland on customary land towards a more participatory social forestry focus. The ability of the Forestry Department to implement the new forest policy is limited by financial and manpower constraints and the need for re-orientation of staff towards a participatory approach to management of forest resources. It is the urgent need to assist the Forestry Department to the re-orientation of staff and working positively with communities that this project started in November 1997.

Ultimately, the rural population are the target beneficiaries. The project will initially concentrate in five districts where there was an influx of Mozambican refugees namely; Nsanje, Chikwawa, Mwanza, Ntcheu and Dedza, then it will go to other districts. Forestry Department staff will benefit through the formal and in-service training programmes to be implemented by the project.

Activities

- Provision of quality extension staff in the field. A Training Needs Assessment (TNA) was done for field staff initially in the five target districts. Based on the TNA findings, a comprehensive of in-service training was designed. Implemetation of the training will take place at Malawi College of Forestry and Wildlife using the lecturers' expertise. This will lead to increased confidence and professionalism of field staff which in turn will lead to greater community participation in forestry activities. In addition, a close working environment has been established between the project, Malawi College of Forestry and Wildlife (MCFW) and Forestry Research Institute of Malawi (FRIM) in the delivery of in-service courses at Malawi College of Forestry and Wildlife and production of teaching materials

- It has supported District Forestry Officers in the formulation and training of VNRMCs

- Delivery of relevant extension messages to clients. The project has recruited two technical Assistants specialists with media and publishing experience to strengthen the capacity of the publicity section. Lessons are provided by these TAs to Diploma students at Malawi College of Forestry and Wildlife on how to use different media when disseminating extension messages.

- Appropriate well taught Forestry Diploma Course at the Malawi College of Forestry and Wildlife. The project has recruited a VSO to teach Social forestry at the College and it has sent two lecturers for Msc. in Social forestry, one at Wolverhamption in United Kingdom and the other in Netherlands.

4.3 FINNIDA (DIDC) PROJECT

It provides assistance to Malawi College of Forestry and Wildlife in education activities, for example, Curriculum Development.

5.0 TRAINING COURSES ON SOCIAL FORESTRY/AGROFORESTRY

The social forestry and agroforestrycourses are offered at Malawi College of Forestry and Wildlife. Social Forestry is taught to Diploma class only because its curriculum has been revised. Agroforestry is taught at Diploma and Certificate levels. There is also an MSc training in Agroforestry and Social forestry at Bunda College of Agriculture.

6.0 CONSTRAINTS HINDERING THE PROMOTION OF SOCIAL FORESTRY

1. Lack of co-ordination between Government Departments and Non-governmental Organizations (NGOs) in dealing with VNRMC. There are too many different extension workers interfacing with villagers causing confusion.

2. Dependency of communities on getting free inputs from the government or projects.

3. Forestry Department field staff need better access to technical up-to-date information on silviculture/policy in order to advise villagers effectively.

4. Patrolmen need re-orientation training to the participatory policy.

5. More government resources are put into social sector nowadays and this means there are budget cuts to other sectors.

6. Less women extension staff in forestry because traditionally it has been believed that it is a male job.

7.0 RECOMMENDATIONS

1. Responsibilities for the various stakeholders engaged in forestry extension or environmental conservation should be clearly spelt out to avoid confusion villagers.

2. The communities must be advised on how to improvise and use local materials. For example instead of polythene tubes they can use plastic packets or bamboos.

3. Refresher or short courses be provided to field staff so that they can disseminate up-to-date information to villagers, e.g. patrolmen who are at the grassroot level need these courses on participatory approach.

4. The government should allocate equally more resources to the forestry sector just it is to social sector to enable forestry staff visit villagers.

5. More women extension staff should be given equal chances in terms of training.

8.0 AREAS OF PARTICULAR NEEDS

(a) Leadership skills
(b) Participatory approaches e.g. PRA
(c) Refresher/short courses on Social forestry
(d) Indigenous Forest Management
(e) Agroforestry technologies

MOZAMBIQUE

By

CUSTODIO DIMANDE

SILVERIO DIOMBA

1. INTRODUCTION

In Mozambique (annex 1), natural forest have a huge potential for social and economical development and contribute to a large extent in providing goods and services to the Nation. Nowadays, rural communities depend strongly on the forestry resources for their livelihood and the national economy receives a direct contribution from the forestry sector estimated at 18% of people.

Considering the importance of the social and economical role played by the forestry and wildlife sector in the life of the nation in Mozambique, an increasing interest of the national authorities is gaining momentum for resources conservation and management on a sustainable basis. involving the communities.

The forestry cover in Mozambique covers over an area of 19 350 000 ha or 24.5% of the total land surface of the country, out of which 191 200 ha are classified as Mountain forest and 19 158 800 ha as Low Land Forests Miombo Woodland, Mopane woodlands. coastal Forests. The total area of the natural woody vegetation and man-made forest in the country cover 52, 607, 200 ha or 66.79% of the total area. The most forest covered provinces are Zambezia, Sofala, Niassa, Cabo Delagado and Nampula. Zambezia and Sofala have a large proportion of their forests dense and medium dense, while in the other provinces the forest cover is more open forest like.

This country report is a rough idea about Mozambique forest, particularly on the community afforestation.

2. CURRENT COMMUNITY PROJECTS IN MOZAMBIQUE

Mozambique is now developing 5 main Projects involving the communities. These are as follows:

- Tchuma-Tchato in the Tete province
- "Areas de concervacao Trans-Fronteira" (ACTF) - in the Maputo, Gaza and Hambane Provinces.
- Community Project of Goba - in Maputo Province

- "Gestao dos Recursos Florestis e Faunisticos" (GERFFA) - in the Sofala, Manica, Zambezia and Cabo Delgado provinces
- "Woodfuel supply - Pilot Project - in Maputo province

3. TRAINING COURSES ON SOCIAL FORESTRY

In Mozambique within the community forestry project, communities participation were formed in order to ensure that the forests are not cut in the pilot areas such as, Matutuine within the Wood Fuel Supply - Pilot Project.

Some other communities participation to protect natural resources were formed in Tete province within the Project Tchuma Tchato.

4. PROBLEMS/CONSTRAINTS

1 Cultural Problems

This is due to the civil war in Mozambique and many communities are mixed up, each one has got its habits/customs, culture and so on.

2 Non-Balanced Used Forestry Resources

This is also due to the war where some areas were more affected than others and this caused imbalance in forestry development, making it not possible to have standard regulation for the different communities.

3 Deforestation

High cost of living has contributed to deforestation though corruption and because some individuals within the communities take bribe to fell trees.

4 Forest Fires

Mozambique farmers use fire to clear their farms which end up as a wild fire consuming forests

4.1. RECOMMENDATIONS

- To give importance to the cultural and traditional restrictions can be recognized to help in forestry projections.

- Encourage afforestation in war affected communities including agroforestry.

- Involve the communities to control the forest resource and raising the standard of living for the people.

- Educate farmers on land preparation and safe use of fires.

5. AREAS OF PARTICULAR TRAINING NEEDS

Due to the big necessity of implementation of community projects in Mozambique, it becomes particularly of importance to train in the following areas:

- Social forestry and community management
- Agroforestry

TANZANIA

By

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KIMARO K.S
MATHIAS S.C.
MAKONO M.M.
OMONDI D.

1.0 INTRODUCTION

Tanzania is situated on the Eastern part of Africa, South of Equator located between 1^0-11^0S and between 29^0 E and 40^0 25^0E. The total area of Tanzania is 939701 km^2 with a population of about 26 million people and the growth rate of 2.8%. (Bureau of Statistics, 1992). Livestock number in the country was estimated to be about 12 million livestock units in 1983 (MoA 1993). Administratively, the country is divided into 20 regions. Each region is to a certain extent autonomous in the administration of its development programmes.

This physiography of Tanzania ranges from the peak of Mt. Kilimanjaro (5950 m.a.s.l) to the floor of lake Tanganyika (358 m.a.s.l), b oarding the Indian Ocean in the East. lies the coastal strip stretching north and southwards of the country, inland, the Central African Plateau dominates most of the country. The plateau is characterized by gently sloping plains and plateau broken by scattered hills and low-lying wetlands.

Climatically the rains are scanty, erratic and unevenly distributed reflecting semi-arid conditions. The mean annual rainfall ranges from 400 mm to over 1000 mm, and temperatures range from 24^0-34^0 C per year depending on altitude and latitude. Drought spells are common.

Main economic activities are agriculture, livestock keeping, forestry/afforestation and fish farming.

2.0 STATUS OF FORESTRY AND FORESTRY RESOURCES

Tanzania has about 33 million hectares of forests and woodlands, almost two third of this total area consists of woodlands on public lands, which lack proper management. Expansion of agricultural activities, livestock grazing, fires and other human activities creates enormous pressure on the public

land.

The total forested area is distributed by type, use and legal status as follows:

Forest type	**000 ha**
Forest (other than mangrove forest)	1141
Mangrove forests	115
Woodlands	32299
Total	**33555**

Use of Forest Land

Production forest area	23810
Protection forest area (mostly catchment area)	9754
Total	**33555**

Legal Status

Forest reserves	12517
Forest/woodland within national parks, etc	2000
Non-Reserved forest land (Public land)	19038
Total	33555

Source: FAO (1992) Forest Resources Assessment for Tropical Countries and FBD Statistics.

The forest offer habitat for wildlife, beekeeping, unique natural ecosystems and genetic resources, making it a potential economic undertaking in the country. Forests and wood based industries contributes about 6% of the Gross National Product (GNP).

Deforestation is estimated to range between 130,000 to 500,000 ha per annum. The main causes of deforestation are (1) clearing forest for agriculture (2) wild fires (3) overgrazing (4) charcoal burning and (5) over exploitation of wood resources. Due to inadequate resources to implement active and sustainable forest management, deforestation through encroachment and over utilization has been taking place on both unreserved forest land and in the forest reserves which are under jurisdiction

of the central or local governments.

3.0 SOCIAL FORESTRY PROMOTIONS, PROGRAMMES, PROJECTS AND ACTIVITIES

Village Afforestation Programme started in Tanzania in early 1970s. The approach aimed at making villagers grow trees to meet the demand of fuelwood and building materials. The target groups were villages, individuals, households, groups and institutions particularly primary schools. The target groups were provided with free seedlings from government run district and regional nurseries. The Programme was not successful because it was top-down. In 1980s the Forestry and Beekeeping Division set up the Community Forestry Section. The task for this section was to explore new approaches to encourage the clientele to raise their own seedlings according to their demand. The government provides necessary nursery inputs such as seeds, polytene tubes and technical knowhow. Also the communities are sensitized to conserve and manage the existing natural forests surrounding their villages.

In the same period (1980s) many projects with donor support started to promote conservation and management of the existing natural forests, agroforestry and soil and water conservation as a complementary to tree planting. The elements of inter-sectoral linkage was revealed where agriculture and livestock productions are considered together with measures to improve soil, land, water and vegetation cover.

People's participation in the management of forest reserves (Joint Forest Management) and in public lands as village forest reserves is still a new approach and is at the pilot stage.

According to the study on best practices for forest activities carried in 1994/95 these projects were classified in three forest management categories based on management objectives and institutional responsibility. These were (i) village afforestation (ii) natural forestry and woodland management, and (iii) forest reserve management. Attached appendix (i) shows some of the projects in the country that deal with community participation.

* There is no direct chain of command from the Ministerial Level to the district Councils. This inders transfer of commands, orders and directives form higher authority to lower.

5.2 RECOMMENDATIONS

- To encourage farmers to adopt agroforestry practices
- To encourage zero grazing practices and de-stocking.
- To provide more training to forest extension staff and farmers.
- To encourage proper land use planning to farmers.
- To encourage farmers, NGOs and private sectors to raise their own seedlings to meet the demand.
- To encourage use of low cost methods of raising trees e.g. cuttings, wildings, direct sowing and use of locally available materials.
- Encourage farmers to plant drought resistant tree species especially indigenous and conserving the existing natural forests.
- Combination of indigenous knowledge and technical knowledge in tree species selection to be emphasized.
- To encourage intersectoral linkage among different land users in tree growing activities.
- To review the current legislation to conform with the revised policy
- To be more effective, establishment of a single/direct chain of command from ministerial level to districts councils is inevitable.

6.0 AREAS OF PARTICULAR NEEDS

(1) Joint Forestry Management Techniques
(2) Participatory approaches and techniques
(3) Gender analysis
(4) Project planning and appraisal

Forestry Research in Tanzania has a responsibility of ensuring adequate supply of seeds for afforestation programme in the country. Also it is being involved in selection and improvement of multipurpose tree species, studies on agroforestry issues and human impact on the forest reserves. Attached appendix (ii) shows some projects involved in Tanzania Forestry Research Institute (TAFORI).

4.0 TRAINING IN SOCIAL FORESTRY AND AGROFORESTRY

In Tanzania social forestry and agroforestry subjects are parts of the curriculum in forestry courses taught at Sokoine University of Agriculture (SUA) and Olmotonyi Forestry Training Institute (FTI) as formal training. Social forestry training is undertaken by different projects in form of seminars and workshops, where possible study tours are also arranged for the same purpose. Forestry Extension Section covers these training in its in-service training package, conducted in form of seminars and workshops.

5.1 CONSTRAINTS/PROBLEMS HINDERING THE PROMOTION OF SOCIAL FORESTRY

The performance of Social forestry in Tanzania has not been without problems. Most of the problems are related to resources, activities, organization, socio-economic, institutional and ecological. The following are the key ones.

* Competition for labour input in tree growing activities with agricultural activities, giving preference to agricultural activities at the expense of tree management tasks.
* Destruction of planted trees by livestock and fire
* Shortage of qualified forestry extension staff
* Land tenure system that favors agricultural activities rather than tree planting
* Inadequate funding for raising and distributing seedlings
* Locally available materials which are cheaper to obtain have been rarely used
* Harsh climatic conditions.
* Inappropriate choice of species to suit local people's preferences and conditions
* Extension workers lack transport facilities and receive inadequate field allowances if at all.
* Lack of collaboration among forestry and other land use sectors, thus making it difficult to coordinate tree growing activities
* Although the revised National Forestry Policy put more emphasis in people participation in forestry activities, the legislation's are not yet revised to conform with the revised policy.

UGANDA

By

TURYAHABWE NELSON

NDHOKERO JUMA

1.0 INTRODUCTION

Uganda is among the Eastern African States and lies between latitude 1^0 30' South and 4^0 North and Longitude 29^0 30' East and 35^0 East. It occupies an area of 241, 500 sq.km of which 7% is forest cover. Its population is estimated at around 20 million people. Although much small in size than its neighbours, its forests are unique in both animal and tree resources. Essentially, forests in Uganda occur as gazetted areas (forest reserves), protected areas (national parks) and on private and ungazetted public land.

1.1 Forest Resources in Uganda

At around 1890, natural forests and woodlands covered approximately 10, 800, 000 ha (45%) of the country's total area. Today natural forests cover only 7% of the land area, most of which are found outside government forest reserves. There are about 1.53 million ha of gazetted forests. These comprise 50% savanna woodland and forest plantation, 40% tropical high forest and 10% montane forests. In addition, there are about 200 km^2 of private forests and unknown area of forest cover on public land.

Abouth 53% of forest land within Uganda's forest reserves remain essentially undistributed. A high population growth rate, conversion of forest land to agricultural use as well as break down in law and order have been the major cause of forest degradation in Uganda.

1.2 The role of forestry in National Economy

Contribution of forestry to the GDP rose from 9.4% to 13.5%, respectively in 1986-1987 and 1995-1996. Current Forest Department reports put the forestry contribution at$ 20-30 million annually. The social role of forests should also be emphasized since forests contribute significantly to the social well being of rural communities living near them.

Construction pole used for rural dwelling through out the country account for as much as 400, 000 m^3 of timber annually. This implied that apart from the contribution of forestry to the Gross Domestic Product (GDP), rural communities also benefit from the forest by getting a wide range of materials, natural fibres, medicines, woodfuel and food. In addition, forests provide environmental services such as protection of water catchment, supply of domestic water and sustainabilityof hydro-electric power. Though such services are very difficult to quantify in monetary terms, they nevertheless help other sectors of the economy to function properly.

1.3 Forest Management in Uganda

Management of forest reserves in Uganda started in 1898 when the first ever specialised organ of government, the "Scientific and Forestry Department" was established. Most of the country's forest Reserves were formally gazetted in 1932. It was operated by rules and regulations and not a formal policy. In 1929, Uganda government adopted its first formal Forest Policy. The policy emphasized the role of forestry in the protection of the environment and promoted afforestation schemes.

Since then, gazetted forest areas and reserved tree species in Uganda have been under the formal custodianship of the Forest Department. The Forest Department has been charged with the dual mandate for revenue generation and environmental protection. This has been through policing and apprehending culprits who contravene the Forest Act.

However, the breakdown of law and order institutions during the periods of 1970s and mid 1980s resulted in destruction of large areas of forest reserves that had previously been managed by the government. The gazetted forest reserves became ***defacto*** "open access" resources. Since 1986, however, law and order was restored although inadequate staff renumeration has remained a management problem.

In 1988, a new forest poliicy was put into place and it emphasizes the role of forests in the protection of the environment. It also emphasizes the maintenance of enough forest land to ensure sufficient supplies of timber, to allow for amenity, recreation and local community participation if forest management (See Appendix 1). It also provides for the conservation of plants and animals in natural ecosystems. Accordingly, 20% of the government forest estate is managed as strict Nature Reserves, 30% as Buffer zone area and 50% as timber production area.

Although the 1988 Forest Policy emphasizes protective foresty and local community participation in forest management it has a number of short falls which have hindered the sustainable use of the

forest resources. Firstly, the policy is supported by weak legislation measures. In its present form, it still uses the penalties of the Forest Act of 1964. The penalties of the Forest Act of 1964. The penalties and fines levied for contravention are too low and do not reflect the importance of forests to the country. Secondly, the policy does not cover the problem of authority over the private forests. As a result most private forests have been converted to other land uses and many important catchment areas have been degraded.

Thirdly, the Policy has a weak provision for forest extension service. There are few professionals trained and deployed to perform the task. Consequently, inadequate extension sevice is carried out. This has made monitoring of forest conditions and rule enforcement difficult thus resulting in loss of forest estate. Furthermore, the policy is not interpreted into local languages that are understood by the local communities who must be involved in its implementation.

1.4 Alternative Ownership of Forest Resources

Apart from State ownership, Uganda's forest resources are under common property and private property regimes but with varying degrees of success.

1.4.1 Private Forest Management

There are numerous forest areas which are privately managed in Uganda. However, there is no law prohibiting private forest area conversion to other uses.

1.4.2 Communal Ownership of Forest Resources

Most of Uganda's non-gazetted forests are still under communal resource use. However, sustaining productivity due to maximum consumption has often lead to the "tragedy of the commons".

2.0 CURRENT PROGRAMMES, PROJECTS AND ACTIVITIES THAT PROMOTE SOCIAL FORESTRY IN UGANDA

2.1 The Government

The government in 1992 launched a National Tree Planting Programme to cover the whole country. This came as a result of high rate of deforestation and its consequent lack of woodfuel and building poles for both local community use and industrial use. New legislation requires individual

landowners and communities to plant trees in specific locations such as steep slopes and in specific quantities (minimum of 10% of any private land). The projects under the government that are involved in tree planting include:

2.1.1 NORAD (Norwegian Agency for International Development)

This is a nationwide funded project that started in 1996 to strengthen the capacity of the Forest Department. It has helped private individuals and communities in the establishment of peri-urban plantations as a source of woodfuel, building poles and posts. It currently covers six districts in Uganda.

2.1.2 The European Community (EC) Financed Natural Forest Management and Conservation

This project has so far raised 53 million hardwood trees and planted about 12,760 ha of land. This has occurred mostly around forest reserves where local communities are provided tree seedlings and encouraged to plant trees in order to reduce the pressure on the forest reserve.

2.1.3. The Agroforestry Research Network for Africa (ICRAF/AFRENA)

This project started in Uganda in 1987 for the promotion of agroforestry in highland areas of Uganda. Although agroforestry is not a new practice in Uganda, it has of recent attracted growing attention as way to address problems associated with high population pressure and shortage of land in some parts of this country. Achievements in Uganda so far include:

- Establishment of nurseries with farmers and implementation of agroforestry technologies on their farms.
- Identification of trees with positive effects and those with severe effects on crops with farmers.
- Trees/shrubs for stabilizing bands and control of soil erosion plant along contours
- Identification of upper-storey trees and establishment of six experimental stations

2.1.4 Nyabyeya Forestry College

The college has also contributed to the promotion of Social forestry by way of training the human resources who, after completing their courses, are employed either by the Forest Department or NGOs.

The in-service forestry staff and other individuals or groups with a stake in forestry/environment are also trained in the college whenever there is a new innovation or need arises.

The college has also established large acreages of forest plantations which have had a positive impact on the local communities in the neighbourhood towards establishing their own woodlots.

2.1.5 Other Government institutions

These include Makerere University, National Environment Management Authority (NEMA), Uganda Wildlife Authority (UWA), National Agriculture Research Organisation (NARO), Forestry Research Institute (FORI), and Church of Uganda have all been active in promoting Social forestry in Uganda.

2.1.6 International Organisations

These include UNDP/Africa 2000 Network, CARE-International and Plan International. They provide local communities with tree planting inputs such as seeds, seedlings and technical advice in all tree planting techniques.

2.1.7 Non-Governmental Organisations (NGOs)

These include Environmental Alert, Africare and Joint Effort to Save the Environment (JESE). These work with the grassroots communities and also provide both material and technical advice to farmers in tree planting aspects.

3.0 EFFECTS OF DEFORESTATION

(i) There have been changes in pattern and duration of rainfall. The rainfall has now become irregular and unreliable. The dry seasons are now longer. The rains that used to be light, steady and long are now heavy, torrential and short-lived. This has led to severe food

shortage, famine and detorioration of the living standard of the people.

(ii) There have been increased incidences of floods and droughts as major disasters in the country. This has been common in high altitude areas like Mt. Elgon.

(iii) Soil erosion has increased tremondously leading to reduced productivity of land due to loss of the top soils.

(iv) Lakes and rivers have been silted, for instance, R. Maziba has been heavily silted in such a way that the Hydro-electricity power plant which used to supply Kabale town is almost out of function. There has been a general rise in temperatures. In Kampala, for example, the room temperatures vary from 26^0-29^0C instead of 22^0-24^0C during the hot days. Also the morning mist has become rare suggesting that the mornings have become hotter than they used to be.

(vi) There has been increased cases of diseases. The District medical Reports, for instance, from Kabale and Mbale indicate increase in temperatures have led to increased cases of malaria and sleeping sickness. This is because the conditions appear to favour the mosquitoes and tsetse flies in those areas.

4.0 TRAINING COURSES IN SOCIAL FORESTRY IN UGANDA

4.1 Nyabyeya Forestry College

The college (NFC) is the only training institution in Uganda offering foresty training at technical level. The training offered includes certificate, diploma and short courses.

The college has put in place a revised curriculum to meet the recent forestry challenges. It includes disciplines that are now "the catch words" for the "new face" of the forestry profession like community forestry (social forestry) which also embrace agroforestry and other related courses.

4.2 Makerere University

The Department of Forestry in Faculty of Agriculture and Forestry offers Bsc. and Msc. in Forestry Degree Courses. Social Forestry and other related disciplines are some of the course units offered there.

4.3. Forest Department

The Department offers a number of in-service courses to its staff. Collaborative forest management (CFM) has of late been introduced where the local people living around the forest reserves are involved in the management of forest resource.

4.4 Others

Agricultural colleges, which officer Diploma courses in agriculture and its related fields, have now incorporated agroforestry in their teaching curriculum

5.0 CONSTRAINTS TO THE PROMOTION OF SOCIAL FORESTRY IN UGANDA

- Poor renumeration/facilitation of forest extension workers
- Few extension personnel/forest officers prepared to stay in rural areas
- Lack of appropriate technologies to be delivered to the farmers
- Cost- benefit and time lag. In most cases the time between planting trees and harvesting the products is too long and this make most people reluctant to plant trees
- Cultural factors - local perceptions and attitudes affect tree planting in most communities
- Ownership of land and trees (insecurity or tenure). Most people do not own enough land while others are squatters. Some trees are also considered to be reserved and cutting needs a permit from the government
- Gender imbalance in most families in Uganda. Women are not supposed to plant trees without permission from men since they do not own land.
- Pests and diseases
- Limited training institutions
- Policy and Legislation very weak
- Limited funding and inputs
- The top-down approach where the planning and decision making is done at the top and the local people are just directed on what to do without their participation.

5.1 Recommendations

1. The Forest Department should develop strategies for increased community participation in forest resource management by involving local community institutions such as local

councils, individuals and grassroots communities. Individuals will feel the sense of ownership. This will generate public interest in forestry activities.

2. The government should address the issue of tree tenure and should put in place the mechanism that clearly specify resource rights on trees and other forest products.
3. Forest extension services should be improved and forest staff should hold periodic meetings with resource users, local groups and schools as well as sensitizing local communities on the importance of forests/tree resources.
4. Forest Department staff should be retrained in participatory approaches in forest management.
5. Revison of the forestry training curriculum to enhance the environmental and socio-economic aspects of forest management.
6. The government should provide economic incentives and necessary legal frame work and technology to encourage and facilitate rural communities, woodfuel using industries and institutions and private sector to be self sufficient in forest product requirements.
7. Remedies for pests and diseases should be sought. Practices like use of ash on young seedlings, for example, to check termites attack should be emphasised. Pests and disease resistant tree species should be encouraged.

6.0 AREAS OF PARTICULAR TRAINING NEEDS

- Fuelwood saving technologies
- Apiary
- Participatory rural appraisal (PRA) methods
- The psychology of adult learners
- Rural sociology
- Extension methods

Appendix

THE UGANDA FOREST POLICY STATEMENT (Gazette No. 3 1988)

1. To maintain and safeguard enough forest land so as to ensure that:

   (i) Sufficient supplies of timber, fuel, pulp, paper and poles and other forest products are available in the long-term for the needs of the country, and where feasible for export.

   (ii) Water supplies and soils are protected, plants and animals (including endangered ones) are conserved in natural ecosystems, and forests are also available for amenity and recreation

2. To manage the forest estate so as to optimize economic and environmental benefits to the country by ensuring that:-

   (i) The conservation of forest resource into timber, charcoal, fuelwood, poles, pulp and paper, and other products is carried out efficiently.

   (ii) The forest estate is protected against encroachment, illegal tree cutting, pests, diseases and fire.

   (iii) The harvesting of timber, charcoal, fuelwood, poles and other products applies appropriate silvicultural methods which ensures sustainable yields and preserves environmental services and biotic diversity.

   (iv) Research is undertaken to improve seed sources for planting stock and the silvicultural and protection methods needed to regenerate the forest and increase its growth and yield. Research is also carried out into new and existing forest products, including tourism and education with the objective of maximizing their utilisation potential. Research should also be undertaken tomonitor and promote the preservation of environmental services and conservation of biotic diversity.

3. To promote an understanding of the forests and trees by:

(i) Establishing extensin and research services aimed at helping farmers, organisation and individuals to grow and protect their own trees for timber, fuel and poles and to encourage agroforestry practices;

(ii) Publicizing the availability and sustainability of various types of timber and wood products for domestic and industrial use and publicizing the importance of environmental services provided by the forests;

(iii) Holding open days at regular intervals in all districts to demonstrate working techniques and bring attention to the positive benefits of forestry;

(iv) Promoting scientific research, environmental education and related activities inside the forest estate.

ZAMBIA

By

KENNEDY M. KAMBEU

IVOR MASAFWA

HUMPHREY M. CHIPOSO

1.0 INTRODUCTION

Zambia is a land locked country covering an area of 752620 square kilometres. It has a population of about 9 million people living in a variety of physical, cultural and economic environments. Within each of these settings, people's settlement patterns, styles of living and land use systems vary from one area to another. The changes in land use patterns are mainly dictated by the economic, social and ecological conditions.

Although Zambian's economy depends heavily on its mineral resources, there is now great emphasis by government to diversify the economic base on other resources like agriculture. The dominant land use and livelihood system in most rural parts of Zambia is subsistence agriculture and also various forest products are collected and utilized by local communities.

This paper provides an overview of the present status of forestry and forestry resources in the country with emphasis on some social forestry programmes. The fundamental changes in forestry policy and legislation has also been discussed.

2.0 PROFILE OF ZAMBIA

2.1 Location

Zambia is land locked country in the Central part of Southern Africa. It has a land area of 752,620 sq.km and about 413,000 sq.km is covered by natural forestry with the exotic plantations contributing a further 900 sq.km. It lies between 8 - 18 degrees S. and 22-34 degrees East.

2.2 Climate

Zambia experiences a sub-tropical dry and cool rainy and wet seasons. The annual rainfall

patterns ranges from 600 mm in the Southern and Eastern parts to 1250 mm in the Northern areas. Mean temperatures are in the range of 15 - 27 degrees C. in winter and 27 - 32 degrees C. in summer.

2.3 Population

The population of Zambia was 9.0 million by 1995 census and growing at an average rate for about 3.4%. Zambia is one of the highly urbanized countries in Africa in terms of population with about 43% of the population live in urban areas.

2.4 State of Economy

Zambia's economy has been under considerable strain for the past 2 decades due to a number of factors both internal and external. Economic activities began to decline from 1975. Low investment levels and shortage of foreign exchange started to be experienced. The GDP declined during the period and averaged to 1.3%. This situation resulted in government introducing a number of measures in an effort to arrest the rapid decline in the economy. The measures included: Structural Adjustment Programme (SAP), decontrol of prices and interest rates, currency devaluation, withdrawal of subsidies and privatization of parastatal companies.

Some of these measures are paying off although the poverty levels and unemployment have continued to be high.

2.5 Social and Economic Aspect

Forests contribute greatly to the well being of the majority of Zambians both in the urban and rural settings. The declining social and economic situation and increasing poverty in the country has been a major cause of dependence on the forests. This in itself creates considerable pressure on the forest resource in meeting the various socio-economic needs of the nation and communities.

A wide range of forest products and services are collected for both commercial and household consumption. These include timber, fuelwood, poles, honey, wild fruits, mushrooms, caterpillars and many other non-wood products. In addition, forests contribute to food security through soil and water conservation, ecological stability and provision of

habitation for wildlife.

3.0 FORESTS AND FORESTRY IN ZAMBIA

3.1 The Forest Resource Base

Zambia's natural vegetation area is mainly made up of savannah woodlands, grasslands and swamp lands. The south-western part of the country consists of teak forests, with the major species being *Baikiaea plurijuga, Pterocarpus angolensis* and *Ricinedendron rantanenii.* The rest of the country is covered with Miombo woodlands. The major species in this forest are *Brachystegia spp, Isobelinia spp, Julbernadia spp, Pterocarpus angolensis, Afzelia quenzensis* and *Colophosphermum mopane.* All this covers about 61.3% of the total land area of which 9.6% are gazetted reserves. National parks and reserves constitute another 8.4%, of total land area bringing the proportion of legally protected land to 18%. The extent of various forests and woodlands is indicated in Table 1 below.

The indigenous forests have an estimated standing volume of 3-4 billion cubic meters with a mean annual increment of 30 - 130 million cubic meters which is 1-3% of the standing volume while that of Pine and Eucalyptus is estimated at 1.8 million cubic meters and 845,320 cubic meters respectively (Hibajene S.N., 1996).

The recorded number of plant species in Zambia is 5,460 comprising 2,300 trees and shrubs, 400 sedges, 630 grasses, 130 ferns and 2,000 herbs. It is however, estimated that the total number of plant species diversity is about 6,000 - 7,000.

3.2 Land and Tree Tenure

All the land in Zambia is owned by the state. It has been divided into three categories:

(i) State Land - Administered by the Commissioner of lands,
(ii) Trust Land - Trusted under the Chiefs and
(iii) Reserve land - Traditional land (under chiefs)

State land covers 6%, Trust land 57% and Reserve land 37% of the total land area. Currently the trust land and reserve land form "traditional land". The local people have free access to forest resources for agriculture and domestic use in this area. In practical terms, the Chief is consulted

when new agricultural area are needed. To the chief, the trees and forests are his property and he can make decisions concerning their use. An individual who plants trees has the ownership over them. However, the cutting and selling of wood products is only allowed under a license from the Forestry Department.

3.3 **Policy and Legislation Aspect**

The government's major policy objectives for the forestry sector are as follows:

- Sustainable forest resource and ecosystem management
- Forest based industries and non-wood forest products development.
- Forestry research, extension and training.
- Forest licenses
- Export of forest products
- Gender considerations in sustainable management of forest resources

Past forest policy and legislation vested a lot of authority in the state which resulted in sidelining the forest users. Government has therefore, realized that the present forest policy and legislation has existed for decades and has failed to provide an environment for sustainable forest development. Consequently it has carried out major reviews of the forest policy and forest bill which are currently under consideration.

The key fundamental changes in the proposed Forest Policy and Forest Bill is the recognition of the role of traditional rulers and the communities in the evolution of sustainable forest management and the need to marshal indigenous knowledge, practices and traditional structures to devise forest management plans which meets the needs and priorities of communities.

Government also recognizes the need to go into partnership with the local people, NGOs and the private sector in managing the forest estates. This could be done through preparing a management plan jointly which would provide local people access to the forest products which they manage with a realization of benefit sharing put in place. The share of the local people would be utilized for development of the welfare of the people.

In line with the policy changes for the forest sector, the institutional frame work is also under review. The new Forest Bill contains the provision for the abolition of the Forest Department and the transfer of the functions for forest management to the Zambia Forestry Commission (ZFC) which would be a quasi-autonomous and self-financing government agency controlled by its Board of management.

4.0 SOCIAL FORESTRY PROGRAMMES IN ZAMBIA

In Zambia, Social forestry has until recently not been promoted. This has been due to several constraint which are highlighted later in this report. Nevertheless, it suffices to say that there has been an awaking in the promotion of Social forestry since the late 80s. Social forestry is mainly promoted through the Forestry Department's Extension branch and some other environmental Non-governmental organisations (NGOs).

4.1 THE PROVINCIAL FORESTRY ACTION PROGRAMME (PFAP)

1. Background

The on-going Provincial Forestry Action Programme (PFAP) focuses on developing and establishing a participatory planning process at provincial level in Central, Copperbelt and Luapula Provinces. The first phase of the programme which constituted the planning stage commenced in August, 1995, and ended on 30th September 1998. Implementation of the Provincial Forestry Action Plans which were the major outcomes after three years has started on a small scale. Preparations are underway for the fully-fledged implementation of the plans beginning January, 1998.

The long-term development objectives of PFAP are to:

- Support and improve the Zambia Forestry Action Plan (ZFAP) by strengthening forestry institutions in the 3 pilot provinces of Central, Copperbelt and Luapula
- Increase benefits to people in the provinces
- Increase revenues to the government
- Increase government funding to forestry

The expected results at the end of the three years planning stage were:

(a) Forestry Action Plans: Provincial Forestry Action Plan (PFAP), Joint Forest Management

Plans (JFMPs) and Village Resource Management Plans (VRMPs);

(b) Processes in place of participatory forestry planning.

(c) Forestry personnel trained in and utilizing participatory methods and co-operative management techniques.

(d) Positive public perceptions of the Forestry Department and an awareness of environmental and forestry issues;

(e) Implementation of pilot activities at the local level and of various actions within the immediate action programmes.

The underlying strategy for the PFA programme is to be action-oriented by involving and committing the stakeholders in the planning process. Consequently, it is of utmost importance to maintain the momentum by responding to the needs expressed by the stakeholders during the planning process. Without an immediate response in form of support to the implementation of the plans, the partners, who have been involved and developed a degree of commitment to the planning process, will be frustrated endangering any further effort to resume the implementation.

2. The Current Status of PFAP

Thus far, the programme has progressed in accordance with the Programme Document and the Work Plan. The main results include the following:

- Establishment of decentralized steering structures for forestry sector in the provinces and districts, which enable dialogue between the stakeholders in forestry development.
- Analysis of the current situation in forestry sector in the three provinces based on consultations with the partners and extensive studies carried out by consultants.
- On-the-job training of staff in participatory planning of the Forestry Department and partner organizations.
- Establishment of an integrated participatory planning mechanism at community level.
- Creation and part implementation of a number of Village Resource Management Plans
- Establishment of a Geographic Information System at the Forest Department Headquarters and Forest database.
- Large scale vegetation mapping of the three Provinces
- Publicity awareness raising on forestry through publicity campaigns and establishing a forestry News-letter
- Contribution to the Zambia Forestry Action Planning through feeding in information from the local levels and participating in drafting some of the development programmes.

- Production of three Provincial Forestry Action Plans.
- Capacity building of FD staff in computers and other acute topics.

3. Main Constraints and Proposed Corrective Measures

The main constraint during the planning stage of PFAP has been inadequate cash counterpart funding from the Zambian Government. Due to the low government contribution, the sustainability of the function initiated by the programme is questionable. The low counterpart funding is attributed to the generally poor state of Forestry Department which has deteriorised significantly in relation to other related departments. It is assumed that was caused by inadequate economic planning which did not enable the Forestry Department to sell itself well to the Government.

The *Joint Forest Management Programmes* (JFMPs) have also not been initiated because of the existing prohibitive legislation. The solution to this lies in the review and enactment of new legislation to cater for all stakeholders in the management and utilization of the forest resources.

Another major constraint during the planning is inadequate means of transport and communication within the Forestry Department. The solution to this constraint is seen in improving the cost effectiveness of the operations which would enable gradual improvement in the financing. As an immediate measure external assistance is required to initiate revenue generating activities.

4. The Role of PFAP in the National Context

In the national context the Provincial Planning Process is seen as the vehicle for the implementation of the national policies identified in the Zambian Forestry Action Plan and the Environmental Support Programme (ESP). This is achieved by deepening the consultation process to the Provincial and District levels. The on-going PFA Programme is meant to be a pilot case on decentralizing forestry sector planning process and should be extended to the remaining Provinces.

5. The Way Forward in the Forestry Sector in the three provinces

The way forward incorporates two main functions: *the implementation for the Provincial Forestry Action Plans* and *the extension of the planning process*. The forestry planning process should be extended to the Districts within the current three PFAP provinces and secondly the provincial planning process should be extended to the remaining provinces in Zambia.

Simultaneous to the planning process, the implementation of the productive programmes identified in the Provincial Plans should be commenced. The following development strategies seem to be emerging from the on-going planning process:

1. Supporting income generating activities through more efficient utilization and processing of wood and non-wood forest products.
2. Promoting private involvement in the forestry sector through generating market information and training in key technical areas and entrepreneurial skills.
3. Mobilizing financial resources through credit and grant facilities. Strengthening the local institutions for participatory management, utilization and protection of forests. This includes establishment of forest users associations and committees.
4. Capacity building of the Forestry Department and related partner organizations for participatory extension.
5. Revitalizing forest management planning as a foundation for sustainable, controlled utilization of the resources, particularly wood fuel, charcoal and timber.
6. Mapping and protection of ecologically sensitive areas such as critical watersheds and habitats for threatened and endangered species or significant biodiversity.

6. The Priority Areas

Out of the Provincial Forestry Action Plans, the following areas are considered priority, to enable maintenance of the momentum created during the planning process of PFAP.

- District Forestry Action Planning in the three provinces involved in PFAP starting from the Pilot Districts.
- Continuation for the local level forestry planning and implementation of the Village Resource Management plans made so far.
- Pilot operations in Joint Forest Management of the Forest Reserves.
- Forest Management planning for areas coming under utilization, particularly concession

areas.

- Capacity building for participatory planning and extension.
- Extension of the large scale vegetation mapping to some or all of the remaining Provinces.

In order to maintain the momentum so far created during the main planning phase of PFAP before the *main implementation phase* starts, a *bridging phase* has been suggested. A proposal was prepared by the Forestry Department and submitted to both the Finnish and Zambian Governments for consideration. It was adopted by the PFAP's MENR-FINNIDA Steering Committee meeting on 20th August 1998. The bridging phase started on 1st October 1998 and is expected to end on 31st December 1998. The Implementation of the PFAPs is expected anytime after 31st December,1998 once new legislation in line with new forest policy and approaches has been enacted by Parliament.

4.2. **The other specific programmes in Zambia that are currently promoting social forestry include the following;**

1 Land Management and Conservation Farming Programme (LM & CF)

This is a Swedish International Development Authority funded programme which is jointly managed by the departments of Forestry and Agriculture. The programme has an agroforestry component and all the activities are aimed at integrating soil conservation, agroforestry, pasture and water harvesting technologies in farming systems so as to contribute to land productivity and sustainability.

2 The National Council for Scientific Research (NCSR)

The National Council for Scientific Research (NCSR) has a Tree Improvement Research Centre (TIRC) which focuses on the production of industrial and medicinal oils from locally grown plants. There is also a programme to produce acaricide, biopesticides, etc from indigenous plants to be utilized to control especially ticks on livestock. All these programmes are worked for communities.

3 The International Council for Research in Agroforestry (ICRAF)

The International Council for Research in Agroforestry (ICRAF) conducts Agroforestry research at two main centres in Zambia. The information and technologies so generated is passed to the community which begin to use it. In addition to the information and

technologies generated, the ICRAF staff are used by the Forestry Department as resource persons in planning and executing the Social forestry programmes.

4 Other Public Sector Social Forestry Related Activities

There are several other line departments in Government like Agriculture, National Parks and Wildlife, Fisheries, etc which are also doing some activities that have an impact on the social forestry management activities.

(v) Non-Governmental Organizations in Social Forestry

There are many Non-Governmental Organizations, Women and Youth Clubs in Zambia which are in contact with local communities at the grassroots level. These organizations, though usually focussed on specific issues, have always had a role in promoting some kind of Social forestry in one way or the other and have played an important role in the planning and management of local level forestry management issues.

Several cooperating partners have assisted Zambia in this vein. In recent years, these have included the British Council, FAO, NORAD, UNEP, JICA, FINNIDA, SIDA and CIDA.

5.0 TRAINING IN SOCIAL FORESTRY

Although training has been identified as an essential element to the successful implementation of the social forestry programmes, in Zambia very little has been done to bring such training to a desirable level. There is however a course at undergraduate level but this is again on general forestry basis. There is no specific training in agroforestry/social forestry per say in Zambia.

6.0 CONSTRAINTS HINDERING THE PROMOTION OF SOCIAL FORESTRY

The Forestry Department has just been restructured as part of the Public Service Reform Programme (PSRP). This has resulted in change of both structures and functions in the department. The term 'Extension' prevails in most titles of the new adopted posts. This is intended to improve the image and relationship with the local communities and other stakeholders who associate a forester to policing.

However there a number of other factors which have hindered the promotion of Social forestry in Zambia. The following are among them:

6.1 Policy and Legislation

Inappropriate policy and legislation to enhance community participation in natural resource management has contributed to the slow developmental process of social forestry. The participation of the communities in resource management is not supported by any legislation.

6.2 Value of Forests

For the forest resources to be appreciated by the communities, there is need to carry out intensive extension to spell out the various benefits derived from the forests which sometimes, taken for granted.

6.3 Incentives

Appropriate legal models for benefit sharing have to be worked out if the communities have to be expected to actively participate in forestry management. Distribution of free seedlings and other inputs could also motivate communities to participate in social forestry programmes.

6.4 Forestry Extension Staff

The present staff levels in the department are inadequate to effectively manage the vast forest estates in the country. Hence the shift in policy to involve the local communities and other stakeholders to collaborate in the management of the resource.

6.5 Financial Resources

Environmental Programmes require substantial investment to run. The government funding has been very inadequate over the past few years in the forestry sector.

6.6 Land Tenure

Most tree species take long to reach maturity for the intended purpose. The lack of secure

land ownership particularly with community woodlots discourage participation.

6.7 Inadequate Training

The forestry extension staff require training in social disciplines in order for them to interact and communicate effectively with the communities on forestry issues.

7.0 RECOMMENDATIONS TO OVERCOMING THE CONSTRAINTS

In order for the Social forestry promotion in Zambia to improve, the above issues should be addressed in one way or the other. The best approach could be to adopt a holistic and participatory approach in the programme. The forest policy and legal frame work should be revised to allow for joint/community forestry.

The close up of the gap between traditional forestry and social forestry, the forestry curricula should be changed to give more emphasis on social forestry than is the case now. The activities in forestry should be integrated with activities in agriculture, soil and water conservation and may require an integrated approach.

8.0 TRAINING NEEDS

The new reforms in the department require orientation of staff through training for them to acquire the appropriate skills to effectively implement the joint forestry management concept. The following are the possible area requiring training:

- Forestry extension
- Project planning and management
- Communication skills
- Designing social forestry programmes
- Monitoring and evaluation of Social forestry programmes
- Participatory Rural Appraisal (PRA)
- Rural development in Forestry
- Forestry Inventories

9.0 CONCLUSION

Not long ago, land and forest resources in Zambia appeared inexhaustible, but now due to increase in population, the pressure on our land resources has more than doubled, thus affecting food and wood production and consequently creating shortages for both food and forest products.

With deforestation estimated at 5-6% per annum (200,000-300,000 ha/yr), the adverse impact of this activity is already being felt through soil erosion, estimated at 30 tons/ha/yr (Chidumayo E.N., 1996). This has led to declining soil fertility and its inability to sustain any plant. Other associated problems are foliage/fodder shortage, desiccation of rivers and streams, siltation of dams and underground aquifers in some areas.

Social forestry and/or agroforestry have the potential to address most of the ecological and socio-economic problems related to declining land productivity such as those mentioned above. It is possible to obtain more diversified production from a piece of land under Social forestry than may be possible with other conventional approaches.

In order to guarantee sustainability of this approach, there is need for the training of our communities and extension workers in social forestry. The management, utilization and marketing of tree crops and services should emulate the successful patterns developed in agriculture. The success of all the above will depend on the extent to which communities are involved in proposing and approving the various social forestry practices to meet their needs. Women who are the majority users of the forestry resources should not be side lined in the planning, implementation and monitoring processes of the proposed strategies.

Development of a government policy and willingness to promote and harness social forestry and partnership in forestry management will offer lasting solutions.

ZIMBABWE

By

TRYPHINE C. MUHLAKUREWA

EMMANUEL PIKIRAI

1.0 GENERAL INFORMATION

1.1 Physical Setting

Zimbabwe lies within the tropics. It is situated in South Central Africa between the Limpopo and Zambezi Rivers. Bounded by Zambia on the North West by S. Africa in the South by Mozambique on the East and North East and on the South West by Botswana. Zimbabwe lies wholly on the North of the Tropic of Capricorn.

1.2 Physical Features

The area of Zimbabwe is 390 245 km^2 and the density is approximately 16 per square km. Almost the whole country lies more than 300 m above sea level. The three major relief regions are recognized on the basis of their general elevation, and these are leveled below 900 m, middle veld 900-120m and Highveld 1 200 m - 2000 m. The Highveld has a portion which deserves special mention, is what is commonly referred to as the Eastern Highlands which consists of a narrow belt of mountainous ranging in attitude from 2 000 - 2 400 m above sea level.

1.3 Climate

Zimbabwe temperatures are generally lower than might be expected for its latitude. Mostly very low temperatures are experienced in scattered areas in the early morning during winter months of May to July. Changes in season are indicated by changes in vegetation rather than temperature. Temperature range: 17-26^{0}C

1.4 Rainfall

Rainfall pattern in Zimbabwe is very erratic, almost all its rainfall is received during the five summer months of November to March and is very unreliable both in amount and duration. The areas of lowest rainfall are also areas of least reliability.

1.5 Vegetation

The impact of man and his activities has been felt everywhere in Zimbabwe. Most of the areas are characterized by Miombo Woodland and dry Savanna dominating and the eastern highlands dominated by mountain vegetation including exotic forests. Most areas also have grasslands.

1.6 Farming Sectors

These are mainly:

- Large scale commercial farming area
- Small scale commercial farming area
- Resettlement areas and
- Communal areas

2.0 FORESTRY AND FORESTRY RESOURCES

Forests provide timber for building, firewood for cooking and heating energy, and non wood products such as fruits medicinal products and food e.g. mushrooms. Forest cover in Zimbabwe is about 60% and mainly dominated by Miombo Woodland.

There is a lot of plantation development in the Eastern highlands which are commercial timber forest growing mainly *Pines, Euclyptus, Populus deltoides.* There is more forest cover in private and resettlement areas although of late, in resettlement areas there is rapid destruction of trees for cultivation purposes and for sale. In communal areas destruction of forests is so rapid due to population growth that is opening up new lands for settlement and cultivation and also as a sources of income.

In communal areas there are woodlands mainly composed of faster growing species such as *Eucalyptus.* This was influenced by the demand for construction timber and income generation although now demand by farmers focuses on indigenous timber.

There are indigenous forests in Matebeland and Mafungausi.

3.0 CURRENT PROGRAMMES, ACTIVITIES TO PROMOTE SOCIAL FORESTRY

3.1 The main focus or objective of Social forestry in Zimbabwe are:

(a) To increase the utilization of human resources managing degraded marginal lands to counteract the process of deforestation.

(b) To contribute to the general socio-economic development of rural people through employment generation, institution building and by promoting economic growth.

(c) To enable rural people to produce or to have better access to forest tree products and services.

(d) To increase participation of rural people in the management of forest and tree resources as a means of increasing their self-reliance.

(e) To address the needs and aspirations of certain underprivileged groups within the rural population such as subsistence farmers, landless families or other sectors or rural people.

3.2. The Aims of Social Forestry Are:

(a) To provide food, fodder, fuel wood, construction materials e.g. sawn wood, building poles and fibres.

(b) To provide other raw materials e.g. farming tools, medicines.

(c) Provision of services for other production e.g. soil fertility, soil erosion control, live fences, wind protection etc.

3.3. The Three General Types of Social Forestry Strategies Currently Being Implemented In Zimbabwe Are:

1 Community or Communal Forestry

This involves tree growing on community lands or private lands organized by community institutions such as women groups or the use of Statelands.

2 Farm Forestry

This involves the growing of trees on communal lands but privately grown and managed. These can also be some plantings around the homestead.

3 Public Managed Forestry for Local Community Development

This is where an area is publicly managed on public lands with social or environmental objectives.

3.4. The Current Programmes Are:

1 Nursery Seedling Production

This entails the facilitation in the establishment and management of satellite nurseries by community groups individual households, schools, local authorities and NGOs.

2 Tree Planting

This programme is designed to promote afforestation and replacement of trees in deforested and degraded areas. Whilst emphasis in the past has been given to faster growing tree species that give biomass for fuelwood and construction, emphasis has now been shifted to planting trees desired by communities and other species which are ecologically adapted/suited to the areas which they are planted.

The planting is supported by the National Tree Planting Day Ceremony which marks the beginning of the planting season. This is the first Saturday of December every Year. Trees can be planted before or after this day depending on the conditions of the area to be planted.

The Department of Natural Resources, and Forestry Commission provide advice, technical training and assistance in protection and tending the planted trees.

3 **Agroforestry**

The main objective of this programme is to encourage tree growing and tree management within agricultural systems in communal and resettlement areas.

Benefits include erosion control through increased vegetation cover as product diversification. Special emphasis is being given to development and implementation of silvo-pastoral system for the drier areas of Zimbabwe.

Other activities which are on going on a small scale though are:

(i) Woodland Management
(ii) Schools and Colleges Tree Growing and Tree Care
(iii) Bee-keeping

4.0 TRAINING COURSES ON SOCIAL FORESTRY/AGROFORESTRY

1 The Zimbabwe College of Forestry Offers a Certificate and Diploma in Forestry and within the syllabus Social Forestry And Agroforestry are included.

2 ICRAF is also involved in conducting trials on agroforestry and there are on farm trials where farmers and other interested groups can also receive information on agroforestry and species used in Agroforestry.

3 Training of communal farmers is on-going and are undertaken by Extension workers i.e
Agritex, Department of Natural Resources and Forestry Commission.

5.0 CONSTRAINTS/PROBLEMS HINDERING THE PROMOTION OF SOCIAL FORESTRY

1 Institutional Arrangements

- Currently there is a problem of leadership in communal areas that is the traditional and the political leadership where there are wrangles on roles. This hinders development of Social forestry because of the division within the community.

- There is need for policy outline on the roles of both leadership and the need to define roles.

- Awaiting a bill to be passed in parliament to streamline roles. Need for clear policies and structure at village level.

2 Poverty

1 This problem leads to random destruction of timber for both consumption and sale.

2 Alternative sources of energy are available such as solar and fuelwood saving stoves but it is not affordable.

3 Need to access alternative low cost sources of energy which are affordable.

4 By-laws need to be implemented to guard against wanton destruction of trees.

3 Land Tenure

- The issue of tenure is a burning one because of the growth in population and other factors. There is no enough land in communal areas that can be set aside for tree planting.

- Resettlement can be an answer but the question of destruction of vegetation has already been serious in resettlement schemes.

4 **Climatic Conditions**

- The physical environment in Zimbabwe also poses a threat to the growth of Social forestry whereby in dry area most of the communal woodlots are a failure because of soils, moisture and other bio-physical conditions.

- The planting of adapted and drought tolerant trees seems to be the only answer.

5 **General Capacity of Extension Service**

* Need for sound technical knowledge and skills to impart the knowledge acquired.

* Emphasis to be given on Rural Sociology

6.0 TRAINING NEEDS

1. Participatory approaches to Rural Development
2. Basic Rural Sociology
3. Training Skills (Extension)
4. Extension Planning
5. Legislation and its Implementation
6. Programme Planning and Management.

APPENDIX FIVE
COURSE PROGRAMME

REGIONAL COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Date	8:30	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
4-10-98 (SUN)						KARIBU KWETU				
5-10-98 (MON)	Introduction and programme review *Training manager SFTP*		Orientation *P. Barasa KEFRI*	Tea Break	Country reports *Training Officers*		Lunch	Country reports (upto 1800 hrs)		**Opening Ceremony** ***Hon. Minister for Research & Technology***
6-10-98 (TUE)	Forestry Development in Kenya *Dr. P. Konuche KEFRI*		Social forestry concepts and practices *A. Kaudia KEFRI*	Tea Break	Social Forestry development strategies - African perspective *P. Mungalla (NCST)*		Lunch		Country reports *Training Officers*	Approaches to interinstitutional networking for SF development in Africa
7-10-98 (WED)	Tree Species for Social forestry *P. Obala KEFRI*		SF nurseries establish-ment and Mgt techniques *Mr. J.Kimondo KEFRI*	Tea Break	Classification of AF practises *J. Wanjiku KEFRI*		Lunch	Tree seed collection and handling *B. Kamondo KEFRI*	Tour of seed centre	
8-10-98 (THU)	Adaptive On-farm AF research *D. Nyamai KEFRI*			Tea Break	Rehabilitation and integrated mgt of degraded areas *D. Mugendi KEFRI*		Lunch	Appropriate tree mgt techniques *G. Muturi (KEFRI)*		Socio-economic issues in SF develop-ment *P. Ongugo KEFRI*
9-10-98 (FRI)	Participatory woodland mgt in dryland ecosystems *B. Chikamai KEFRI*			Tea Break	Silvipastoral mgt strategies in ASALs *D. Miano KARI*		Lunch	Livestock and fodder research KARI farm *D. Miano KARI (Muguga)*		
10-10-95 (SAT)	Free (Holiday)							Free		

REGIONAL COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Date	8:30	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
11-10-98 (SUN)										
12-10-98 (MON)	Woodfuel conservation and consumption systems *KENGO*			Tea Break	Social Forestry Extension Strategies *P. Muita FESD*		Lunch	Pest mgt in Social forestry *M. Gichora KEFRI*	Desease Mgt in SF *L. Mwangi KEFRI*	
13-10-98 (TUE)	Social Forestry Extension Surveys and Appraisal Methods *B. Owuor (SFTP)*			Tea Break	Gender Issues in SF/ Agroforestry development. *E. Kiptot KEFRI*		Lunch	Strategic bussiness and marketing techniques for community groups *Ngetich/Ombok KCOMNET*		
14-10-98 (WED)	Policy issues in SF development *African Centre for Technology Studies*			Tea Break	Research-Extension-Farmer Linkage Mechanisms *A. Kaudia KEFRI*		Lunch	Leave for KITUI		
15-10-98 (THU)	Over-view of KSFTP	Over-view of Pilot Forestry activities	Tea break	Tour of Pilot Forest *Pilot Forest Officers*				Late Lunch	Free	
16-10-98 (FRI)	KENGO community tree planting and other activities						Lunch	Travel to Embu		
17-10-98 (SAT)	Agroforestry/fodder research in Embu *KEFRI/KARI/ICRAF*									

REGIONAL COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Date	8:30	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
18-10-98 (SUN)	Free									
19-10-98 (MON)	Travel to Gilgil		PRA Exercise *Frances Lela* *Egerton university*			Lunch	PRA - cont'			
20-10-98 (TUE)	PRA Discussions *Frances Lela* *Egerton university*					Lunch	Leave for Bungoma			
21-10-98 (WED)	Visit Afforestaton activities in Bungoma Visit Bungoma Indigenous trees and woodland management by local communities						Lunch	Leave for Busia		
22-10-98 (THU)	Visit Afforestation activities in Busia District DFO/MoEnergy									
23-10-98 (FRI)	KEFRI-KARI-ICRAF on-farm agroforestry research and extension activities Visit Farmer initiated Research & extension activities *ICRAF/KEFRI - Maseno*									
24-10-98 (SAT)	Visit UHAI projects community based natural resources management and conservation programmes *Dr. Kapiyo Kapila* *UHAI*									

REGIONAL COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Date	8:30	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
25-10-98 (SUN)	Travel to Muguga									
26-10-98 (MON)	Participatory Project Frame-work *Florence Chege* *KEFRI*			Tea break	Monitoring and evaluation of community development programmes *FESD/FD*		Lunch	Local Level communication networks *KCOMNET*		
27-10-98 (TUE)	Providing Leadreship and Mgt skills *J. M. Gisemba* *KEFRI*			Tea break	Psychology of Adult Learning *Karanja wa Kangethe* *BAE/MCSS*		Lunch	Planing and desinging training programmes *A. Mwamburi* *SFTP*		
28-10-98 (WED)	Environmental Impact Assessment *Dr. W. N. Wamicha* *Kenyatta University*			Tea break	Development of SF training and extension materials *A. Mwamburi* *SFTP*		Lunch	Visit To ICRAF HQ - NRB *B. Owuor*		
29-10-98 (THU)	Leave for Mombasa							Arrival in MSA		
30-10-98 (FRI)	Coastal Forest Conservation Unit (South Coast)					Lunch	Travel to Gede		Kipepeo Project	
31-11-98 (SAT)	Baobab Farm				Free					

REGIONAL COURSE FOR THE PROMOTION OF SOCIAL FORESTRY IN AFRICA

4th October - 6th November 1998

Date	8:30	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
1-11-98 (SUN)	Free in Mombasa									
2-11-98 (MON)	Mangroove forest conservation programme KEMFRI Gaza (south coast)									
3-11-98 (TUE)	Leave for NRB							Arrival at Muguga		
4-11-98 (WED)	Micro-enterprise development in social forestry *Class Workshop/ KEFRI/SFTP.*			Micro-enterprise financing and credit management *R. Mungla Catholic university*				Group discussion		
5-11-98 (THU)	Group Discussions			Group Discussions cont'd		Lunch		Free For Shopping		
6-11-98 (FRI)	Group presentation and Pannel discusion				Course Evaluation		Lunch		Closing ceremony and Dinner **Ambassador of Japan**	
7-11-98 (SAT)	KWAHERI (departures)									